



UNIVERSITY OF
GOTHENBURG

RED

19

RESEARCH
EVALUATION FOR
DEVELOPMENT
2019

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DEVELOPMENT
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Editors: Sigríður Beck, Rebecca Blease, Kristoffer Collin,
Staffan Edén, Mattias Lindgren Sandgren, Rangnar Nilsson.
All reports were drafted and edited by panel members,
therefore the content and conclusions of these sections
are attributed to the respective panellists and panel chairs.

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CONTENTS

9	PART I
10	1. SUMMARY
11	2. SAMMANFATTNING PÅ SVENSKA
13	3. INTRODUCTION
14	4. PROJECT STRUCTURE AND DELIVERY
15	Evaluation units
15	Evaluation criteria
16	Project organisation
16	Preparatory phase
17	Project elements
18	Evaluation phase
20	Panel reports
21	5. CONCLUSIONS BY THE RED19 PROJECT GROUP
21	Follow-up and next actions
23	PART II: PANEL REPORTS
25	University Management
43	FACULTY OF ARTS
61	Department of Cultural Sciences
87	Department of Historical Studies
103	Department of Languages and Literatures
127	Department of Literature, History of Ideas, and Religion
145	Department of Philosophy, Linguistics and Theory of Science
163	Department of Swedish
181	FACULTY OF EDUCATION
199	Departments of Education (IPKL, IPS, IDPP)
227	Department of Food and Nutrition, and Sport Science
241	FACULTY OF FINE, APPLIED & PERFORMING ARTS
275	FACULTY OF SCIENCE
303	Department of Biological and Environmental Sciences
333	Department of Chemistry and Molecular Biology
361	Department of Conservation
383	Department of Earth Sciences
409	Department of Marine Sciences
435	Department of Mathematical Sciences
445	Department of Physics
465	FACULTY OF SOCIAL SCIENCES
493	Department of Journalism, Media and Communication
511	Department of Political Science
523	Department of Psychology
539	Department of Social Work
557	Department of Sociology and Work Science
579	School of Global Studies
615	School of Public Administration

639	IT FACULTY
651	Department of Applied Information Technology
665	Department of Computer Science and Engineering
687	SAHLGRENSKA ACADEMY
703	Institute of Biomedicine
719	Institute of Clinical Sciences
719	Clinical Sciences Panel 1 – Orthopaedics; Biomaterials; Anaesthesiology and Intensive Care
733	Clinical Sciences Panel 2 – Surgery; Urology; Plastic Surgery; Gastrointestinal Research and Education; Transplantation
767	Clinical Sciences Panel 3 – Radiation Physics; Radiology; Oncology; Dermatology; Otorhinolaryngology
781	Clinical Sciences Panel 4 – Paediatrics; Obstetrics and Gynaecology
795	Institute of Health and Care Sciences
815	Institute of Medicine
847	Institute of Neuroscience and Physiology
847	Neuroscience and Physiology Panel 1 – Pharmacology; Physiology
859	Neuroscience and Physiology Panel 2 – Clinical Neuroscience; Psychiatry and Neurochemistry
877	Neuroscience and Physiology Panel 3 – Health and Rehabilitation
889	Institute of Odontology
909	SCHOOL OF BUSINESS, ECONOMICS AND LAW
923	Department of Business Administration
949	Department of Economics
963	Department of Economy and Society
983	Department of Law
1017	PART III: CROSS-CUTTING PANEL REPORTS
1019	Gender Panel Report
1037	Collaboration Report
1049	PART IV: REFLECTIONS ON THE RED19 PROCESS
1052	Communication with the departments and faculties
1052	Communication with the panels
1053	Resources and budget
1053	Evaluation units
1054	Self-evaluations
1054	Data and metrics
1055	Cross-cutting panels
1055	Final Remarks
	PART V: APPENDICES (Online only)
	Appendix A: Background Data
	Appendix B: Self-Evaluation Instructions
	Appendix C: Panel Instructions
	Appendix D: The Swedish HEI System and University Context
	Appendix E: Panel Membership

FOREWORD

RED19 – Research Evaluation for Development 2019 was a major review exercise with the primary aim of driving improvements to research quality at the University of Gothenburg. Rather than focusing on benchmarking of research outputs, RED19 identifies, explores and evaluates the preconditions that underpin a high-quality research environment.

The RED19 evaluation process centred around self-assessment exercises across 37 academic departments, 8 faculties and the University Management. These were reviewed by 141 peers – world experts drawn from the international research community. Today it would have been impossible to perform a site visit and I am very grateful that we were able to welcome panelists to Gothenburg in April 2019.

It's been a long journey – the preparation phase for RED19 began in 2016, self-evaluations developed during 2018, with input from the external panels during 2019 and extensive follow-up work since. The RED19 project thus represents a major undertaking, and a significant investment of time and energy by colleagues across the University's academic and professional service community.

This book presents key highlights, outputs and recommendations from RED19. Behind the work presented here there is a considerable additional volume of detailed data and analysis, which provided a rich body of information to the panelists. The material generated to support RED19 therefore offers a unique set of up-to-date insights into the culture, strategy and operations of a major Swedish University.

RED19 generated a comprehensive and extensive set of recommendations, which are now in the hands of the University Management, faculty boards and department heads. I look forward to seeing the critical analysis by these leadership teams as they work to transform the outputs from the RED19 process into action plans that will inform and steer the future direction of the University. This activity will underpin the delivery of positive change and I'm aware that the process of self-evaluation has already resulted in new initiatives for quality improvement.

In recent years, the value of challenge-led research and the adoption of coordinated approaches to align academic activity towards delivering positive change has become increasingly acknowledged. The Covid-19 pandemic has drawn particular attention to the importance of research for the benefit of society. In this context, I firmly believe that a thorough evaluation of research quality and evaluation of research environments by peers is hugely valuable.

Staffan Edén, *Project Leader*

PART I

INTRODUCTION AND SUMMARY

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1. SUMMARY

RED19 is a comprehensive evaluation of processes and prerequisites for performing research of high quality at the University of Gothenburg. The overall purpose of RED19 is to strengthen research quality and enhance the research environment through the production of a series of recommendations that will inform future planning and management activities. The evaluation is based on background data covering staff, finances and bibliometrics, together with a self-evaluation produced by each academic department, faculty and the University Management. 141 external experts were asked to identify strengths and weaknesses of the ways in which the units they evaluated worked to create an environment that supports the delivery of high-quality research, and to provide recommendations for improvement and further development. In addition, two cross-cutting panels were recruited – one analysing the quality of processes at the University of Gothenburg regarding cooperation with society, including impact and social relevance of its research, and another exploring the role and influence of gender in the evaluation.

RED19 was preceded by a one-year preparation period – six months for the self-evaluations and a further six months for the peer review process. The outcome of RED19 shows that research produced at the University of Gothenburg is consistently of high quality, and in some instances outstanding and internationally leading. RED19 has also identified several areas where improvements could be made, and the expert panels have provided the University with a series of recommendations to address these.

The results of RED19 are owned by the heads of the evaluation units participating in the project, who take responsibility for developing and implementing action plans based on the recommendations set out in the panel reports. Action plans was submitted in December 2019, the implementation of which will be assessed during 2022. RED19 forms part of an ongoing research quality assurance system at the University of Gothenburg and it is anticipated that there will be future comprehensive evaluations carried out approximately every six years.

2. SAMMANFATTNING PÅ SVENSKA

RED19 är en utvärdering av förutsättningar för god forskning och samverkan vid Göteborgs universitet. Syftet är att stärka och vidareutveckla universitetets forskning och samverkan. Utvärderingen baserades på ett bakgrundsmaterial för en nulägesbeskrivning och en kritisk självreflektion. Med dessa underlag identifierade externa experter styrkor och svagheter i universitetets förutsättningar och processer för att utveckla forskning av hög kvalitet. De externa experterna har därefter presenterat konkreta rekommendationer för vidare utvecklingsinsatser.

Göteborgs universitet har utvärderat universitetets forskning en gång tidigare, i RED10. Syftet den gången var huvudsakligen att bedöma forskningens kvalitet vid den aktuella tidpunkten, men identifierade samtidigt flera förbättringsområden. RED10 var ett viktigt underlag för det efterföljande arbetet med universitetets strategidokument, Vision2020. Den ansågs också vara så värdefull att universitetsstyrelsen i anslutning till att Vision2020 fastställdes beslutade att en ny genomlysning av universitetets forskning skulle genomföras före år 2020. Ytterligare incitament för att genomföra en forskningsutvärdering var behovet av att utveckla ett kvalitetssäkringssystem för forskning i likhet med det som redan finns för utbildning och som uppfyller de krav som UKÄ kommer att ställa i kommande utvärderingar av universitetets kvalitetssäkringssystem.

RED19 föregicks av en förstudie 2016–2017. I denna förstudie gjordes en litteraturgenomgång för att identifiera kriterier och faktorer av betydelse för att skapa goda forskningsmiljöer. Erfarenheter från internationella system beaktades och framför allt Standard Evaluation Protocol (SEP) i Nederländerna påverkade utformningen av RED19. Därtill hade Uppsala universitet nyligen genomfört en utvärdering av sina forskningsmiljöer, Kvalitet och Förnyelse 2017 (KoF17), som vi också inspirerades av. Inför RED19 genomförde vi även semistrukturerade intervjuer med samtliga prefekter, dekaner, universitetsledningen samt forskningsgruppsledare för att hämta in synpunkter på och förväntningar av en forskningsutvärdering. Med detta underlag utarbetades ett konkret förslag till genomförande av RED19 som presenterades för universitetsstyrelsen i juni 2017.

RED19 bygger på tre delar: 1) bakgrundsmaterial, 2) självvärdering och 3) extern granskning. En resursgrupp för RED19 tog fram bakgrundsmaterialet (i form av personaldata, ekonomidata och bibliometri) i dialog med en av fakulteterna nominerad referensgrupp under våren 2018. Institutioner, fakulteter och universitetsledning fick tillgång till materialet före sommaren 2018, och arbetade med sina självvärderingar under hösten.

Självvärderingarna behandlade följande teman

- Institutionens/fakultetens verksamhet och organisation, en egen bedömning av pågående forsknings kvalitet i ett internationellt perspektiv, visioner och planer för framtiden;
- Beslutsprocesser, rekryteringsstrategier och karriärvägar;

- Ekonomistyrning och uppföljning;
- Samarbeten inom och utom akademien samt samverkan inkluderande avtryck och betydelse av forskningen utanför universitetet;
- Samspel mellan forskning, forskarutbildning och grundutbildning;
- Hantering av etiska frågor och oredlighet, lika villkor och jämställdhet;
- Publiceringsstrategi;
- Förutsättningar och infrastruktur;
- Behov av stödfunktioner;
- Reflektioner över resultaten av RED10 och hur dessa hanterats.

Den externa granskningen genomfördes av 141 experter varav huvuddelen rekryterades från de nordiska länderna. Det fanns en panel för varje utvärderingsenhet (institutioner, fakulteter och universitetsledningen). Utöver dessa rekryterades 2 tvärande paneler, en för att samlat bedöma samverkansaspekter och en för att på samma sätt bedöma jämställdhetsperspektiv.

Panelledamöterna rekryterades på förslag av institutionerna. Den samlade kompetensen inom varje panel innefattade

- Ledningserfarenhet, detta gällde främst ordförande;
- Internationellt framgångsrika och väl respekterade forskare;
- Erfarenheter av arbete med framgångsrika forskningsmiljöer;
- Bred ämneskompetens;
- God förståelse för tvärvetenskaplighet;
- God förståelse för samverkan;
- God förståelse för det svenska systemet.

Samtliga ordföranden (42 st) fick detaljerad information och instruktioner om utvärderingen och förväntningar vid personliga möten som genomfördes i december 2018 och januari 2019. Till dessa möten bjöd vi även in övriga panelledamöter som fanns i samma stad. Sammanlagt kunde över 80 av panelledamöterna ta del av sådana möten. Under januari till mars arbetade panelerna med det utskickade materialet. Platsbesök genomfördes i början av april 2019. Ordförande i varje panel deltog även i intervjuer med fakultets- och universitetsledningarna. Platsbesöket avslutades med en preliminär återkoppling till respektive utvärderingsenhet (institution, fakultet, universitetsledning). Efter platsbesöket färdigställde panelerna sina rapporter. Utvärderingsenheterna faktagranskade före publicering.

Resultatet från RED19 visar att forskning vid Göteborgs universitet generellt håller hög kvalitet och att vissa miljöer vid olika fakulteter och inom olika ämnesområden beskrivs som internationellt ledande. De två tvärande expertpanelerna kunde fördjupa sig i sina perspektiv vilket gav ingående och mer sammanhängande rekommendationer kring dessa aspekter för universitetet som helhet.

Varje utvärderingsenhet har haft att hantera panelernas rekommendationer genom att handlingsplaner togs fram under hösten 2019. Dessa kommer sedan att följas upp om 3 år (2022). År 2024 är sedan tanken att påbörja planering av nästa RED, som i så fall går av stapeln år 2025 – RED25.

Vi anser att processen med RED19 i sig har ett värde. Dialog med dekaner och prefekter under förstudien bidrog till ett erfarenhetsutbyte mellan olika delar av universitetet och var en viktig del av förankringen av utvärderingen. Arbetet med att ta fram bakgrundsmaterialet i samråd med referensgruppen gav ytterligare erfarenhetsutbyte och förankring, men visade på svagheter i våra befintliga system. Självvärderingen i sig bidrog till kritisk reflektion över den egna verksamheten. Slutligen har den externa granskningen gett konkreta förslag på hur verksamheten kan vidareutvecklas och förbättras. Det är nu av stor vikt att systematiskt följa upp utvärderingen för att säkerställa att alla dessa värden tas tillvara, så att RED19 kan bidra till utveckling av ytterligare förbättring av forskningens kvalitet vid Göteborgs universitet.

3. INTRODUCTION

‘Research Evaluation for Development 2019’, or RED19, is an evaluation of the University of Gothenburg’s research capabilities and research environments over the period 2013 to 2017. The university carried out a first comprehensive evaluation in 2010, entitled ‘Research Evaluation for Development of Research 2010’ (RED10), which analysed research quality over the period 2004 to 2009.¹ The RED10 evaluation panels made the following five general recommendations:

1. foster **national and international collaboration** and recruitment from outside the University of Gothenburg;
2. strengthen the flux of postdoctoral and early-career scientists from and to the University;
3. review **departmental and faculty-level structures** and, where appropriate, reduce the number of highly specialised and under-staffed research groups;
4. foster the **dissemination of best practice** within the University in relation to research and research planning;
5. promote **interdisciplinary research** both within the University and in collaboration with European and international partners.

1. Information on the RED10 project and link to the full evaluation report is available at <https://medarbetarportalen.gu.se/projekt-process/avslutade-projekt/red10/?language-id=100001&skipSSOCheck=true>

Following RED10, and partly based on the panels' recommendations, the Vice-Chancellor led the development of a new set of university-wide strategies, resulting in the 'Vision 2020' strategic plan.²

The RED19 project forms part of the delivery of Vision 2020, which states that:

Research at the University of Gothenburg shall be of high international quality across the board. This implies that we shall undertake continuous quality development efforts and that the results shall inform practical interventions.

Therefore, the aim of RED19 is to identify the conditions and strategies that foster high-quality research capabilities, and best environments in which to flourish. As such, it is complementary to the University's existing quality development exercise for education.

During the planning of RED19, the Swedish government assigned the Swedish Higher Education Authority (UKÄ – Universitetskanslersämbetet) the task of assessing the quality assurance systems of Swedish higher education institutions (HEIs). In its assignment to UKÄ, the government emphasised the statutory obligation of Swedish HEIs to interact with and contribute to the surrounding society.³ In light of these developments, RED19 was also designed to align with the planned criteria for UKÄ's assessments.

University of Gothenburg's Vision 2020 characterises the 'complete academic environment' as the interaction between research, education and cooperation, where all education – regardless of level – is linked to research, and all research is linked to education. Such environments contribute to cross-disciplinary research and collaborative education, and support cooperation with public and private actors from across society. With these criteria in mind, RED19 includes an evaluation of those aspects of research quality and environments that relate to collaborative, translational and interdisciplinary research.

4. PROJECT STRUCTURE AND DELIVERY

A preliminary study for RED19 was conducted in 2016–2017.⁴ This study included a review of the literature on research quality criteria, an investigation of national and international systems for quality assurance, and interviews with 110 colleagues at the University of Gothenburg and representatives from peer institutions.

2. Information on and links to the full Vision 2020 document are available on <https://medarbetarportalen.gu.se/vision2020>

3. An outline of the UKÄ system for quality assurance of higher education and research in Sweden is available at <https://english.uka.se/quality-assurance/quality-assurance-of-higher-education.html>

4. The full preliminary study (together with the project plan and list of the interview groups) are attached to the board protocol excerpt with the formal decision to conduct RED19 and the PM regarding this decision on https://medarbetarportalen.gu.se/digitalAssets/1658/1658760_utdrag-ur-styrelseprotokoll-2017-06-07----9-1-.pdf Only available in Swedish

The study highlighted the value of quality assessment exercises within the university sector, both to demonstrate the return on investment of public money and to provide an evidence base to support continuous improvement within the University of Gothenburg and across the wider sector. Although there was a consensus that such an evaluation must be labour- and cost-effective, most interviewees agreed that both self-evaluation (labour) and external peer review (cost) were necessary elements of an effective evaluation framework.

The main conclusion of the preliminary study was that the overall purpose of carrying out RED19 should be to identify ways of enhancing the quality of research and research environments at the University of Gothenburg. The evaluation should not primarily serve to grade results or research output per se, but rather to identify the conditions and strategies that foster high-quality research environments that are conducive to the strategic renewal of research. The study also concluded that head of each evaluation unit owns the results, and will take responsibility for evaluating and acting-on any recommendations that emerge.

Evaluation units

The University's departments were designated as the primary evaluation units of RED19 in order to ensure clarity of management oversight and leadership, both of the evaluation exercise and of the follow-up actions. This approach also ensured that research infrastructures and interdisciplinary centres, which are managed at departmental level, would be included in the evaluation. The departments' research environments were evaluated from a national and international perspective, while taking into account the context of the departments' activities. It was agreed that evaluations of research environments should be carried out in a manner that reflected the diverse nature of academic endeavour.

Faculty- and University-level management teams were also included as evaluation units to reflect the important role that institutional strategies and the wider management context play in the creation of a strong research environment.

Evaluation criteria

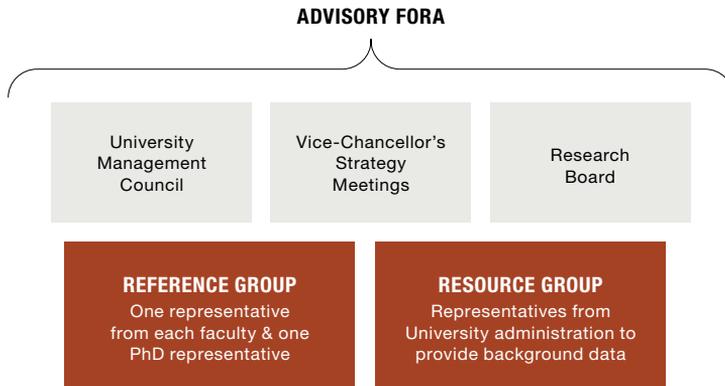
The preliminary study identified the following four characteristics of a high-quality research environment at the University of Gothenburg:

- that it provides the conditions for conducting successful research;
- that the research impacts our understanding of the world about us and/or on our way of thinking;
- that the research has practical benefits for society;
- and that the research interacts with education in a mutually beneficial way.

Reflecting the above characteristics, RED19 therefore sought to evaluate research standing, leadership, academic culture, support, and the interaction between research and education, as well as the interaction between research and public outreach, and their respective contributions to research quality.

Project organisation

A proposal to proceed with RED19, based on the conclusions from the preliminary study, was presented to the University Board on 7 June, 2017. The Board accepted the proposal on the condition that the proposed budget should be scrutinised in order to make the evaluation as cost-effective as possible. The Board allocated SEK 12 million for the project.



The Vice-Chancellor is the client of the RED19 project and University Management its steering committee. At the project's initiation, a Project Group was formed, with former Deputy Vice-Chancellor Staffan Edén appointed as project leader and membership comprising Sigríður Beck, Kristoffer Collin, Rebecca Blease and Rangnar Nilsson at the Grants & Innovation Office.⁵

The University Management Council, the Vice-Chancellor's strategy meetings (in which all heads of departments, deans and University Management participates), and the Research Board (from January 2018) have served as advisory fora throughout the process. A Reference Group, comprising one representative from each faculty and one PhD representative, assisted in the preparatory phase. Similarly, a Resource Group provided administrative expertise and the background data requested during this period.

Preparatory phase

The structure of the project was devised over the autumn of 2017 and spring of 2018. Close dialogue was maintained with the Reference Group to ensure that departments and faculties had an input into, and were informed about, the design of the evaluations. The evaluation included three components: background materials, self-evaluation, and external review by expert panels. These components required the production of background materials, including staff data, financial data and bibliometrics (Appendix A), self-evaluation instructions and templates

5. Ulrika Hjelm was the project coordinator from the start of the project to the summer of 2018.

(Appendix B, i-iii), and panel instructions and templates (Appendix C, i-iii).⁶ There are three versions of panel instructions, since we had two extra panels assigned to analyse cross-cutting perspectives in the self-evaluations (see below, in the “Evaluation phase” Section). We also provided our panels with short descriptions of the Swedish HEI system and of our own university (Appendix D). In addition to discussions with University Management, the University Management Council and the Research Board, the Project Group frequently held meetings with faculties and departments, and arranged open meetings to engage with the wider academic community. The project was presented and discussed on over 30 occasions during this period.

Project elements

The preparatory phase concluded that RED19 should be based on the following elements:



Background materials. Following discussions with the Reference Group to define the scope, the Resource Group delivered background data for the RED19 evaluation period of 2013–2017. Where possible, these data were disaggregated based on gender. The following materials were delivered to the evaluation units to form the basis for self-evaluation, and later to the expert panels for their review:

- **Staff data.** Information on the number of employees, their job titles and possession of doctoral degrees.
- **Financial data.** Information on income and expenditure for research and education, unused contributions, and the evaluation unit’s largest sources of funding.
- **Bibliometric data.** Bibliometric data was reported based on the Norwegian model⁷, which is used at five of the University’s faculties and, in principle, has the capacity to cover all academic disciplines. The number of publications per year was reported separately for each evaluation unit and year, divided into

6. Appendix A-E, see the RED19 website <https://medarbetarportalen.gu.se/projekt-process/aktuella-projekt/red19/report/appendices> or the digital print of the appendices (GUPEA REF).

7. This model for bibliometric analysis is described with links to relevant details on https://dbh.nsd.uib.no/publiseringsskanaler/Forside.action?request_locale=en

the categories of: books, book chapters, and journal articles for each quality level. Additionally, the total number of points was reported per evaluation unit and year. The Norwegian model categorises publications within two quality levels, with level 2 ranking higher than level 1, and therefore provides limited granularity in the assessment of publication quality. Reflecting the intention of RED19 to embrace discipline-specific quality indicators, when individual departments expressed a wish to adopt alternative bibliometric models, these were met as far as possible within practical and/or economic constraints. For example, departments that normally use Web of Science (WoS) were able to access and reflect-on this data (e.g. field-weighted citations and top-10 publications).

- **Strategy and policy documents.** Evaluation units were invited to provide relevant department-specific documentation, examples of which include research strategies, resource allocation models and staffing and recruitment strategies.
- **Other evaluations.** Examples included ALF⁸ accounting evaluations of Sahl-grenska Academy, accreditation evaluations of the School of Business, Economics and Law, as well as UKÄ evaluations of postgraduate programmes.

Self-evaluation. The self-evaluation instructions and templates composed during the preparatory phase are available in Appendix B.

Peer review and site visit. The panel instructions and report templates composed during the preparatory phase are available in Appendix C. Further information is also provided in the following sections.

Evaluation phase

During the autumn of 2018 all evaluation units, including the faculties and University Management, undertook self-evaluation exercises. The themes of the self-evaluation were

- Background with a description of the department/faculty, its organisation and a self-evaluation of the quality of evaluation of ongoing research in an international perspective, visions and plans for the future;
- Department leadership and decision making;
- Recruitment;
- Career structure;
- Funding;
- Feedback and evaluation;
- Collaboration within academy and with external stakeholders including relevance and impact of such collaboration;
- Research-teaching linkages;
- Doctoral education;
- Academic culture including handling of research misconduct and other unacceptable practices;

8. <https://www.sahlgrenska.se/forskning/alf>

- Publication strategy;
- Facilities and research infrastructure;
- Equal opportunities;
- Internationalisation;
- Research support;
- Reflection over RED10 and how the results of RED10 were handled.

The units' writing processes are described in Section F of the self-evaluation form. In most cases, a writing group was created and many units held seminars and other discussion fora. Within a small number of units, the self-evaluation was written in a closed group.

The evaluation units were invited to nominate experts, with the aim of selecting peer review panels that encompassed the following characteristics, competencies and experience:

- Strong international research reputation;
- Experience of working in successful research environments;
- Management experience (mainly applicable for the chairperson);
- Experience of delivering interdisciplinary research;
- Strong understanding of research impact and collaboration;
- Knowledge of the Swedish higher education system;
- Broad subject competence – covering all represented fields within the respective evaluation unit.

The core of each panel consisted of three experts, with additional members in cases where this was required to cover the criteria mentioned in the previous paragraph. The chairpersons from each department-level panel evaluated the faculty-level management; then, the chairpersons from each faculty-level panel convened to evaluate university-level management. A Coordinating Chair, Lena Gustafsson was appointed to oversee the work of the panels.

A total of 141 external experts were recruited to deliver the assessment, most of whom were drawn from the Nordic countries. One panel was assigned to each evaluation unit (departments, faculties and University Management), and two additional panels convened to consider cross-cutting perspectives. The cross-cutting panels were asked to undertake a comprehensive examination of panel reports and self-evaluations from across the University; exploring gender and utilisation perspectives - including cooperation with and the impact of science and research in society. The instructions to these panels are available in Appendix C, ii-iii. A list of panel members, not including transverse panelists, is available in Appendix E, i, and an overview of country of origin and gender in Appendix E, ii.

The expert panels received the background materials and self-evaluations in December 2018. In addition, personal meetings were held with panel chairs and, where possible, with other panel members, connecting with 86 panellists in total.

These meetings were held either in person or, in some cases, via Skype. During the meetings, panellists were presented with detailed information about the aims of the RED19 project and guided through the self-evaluation documentation and background data. The meetings were followed by a site visit to Gothenburg, 1–5 April 2019.

The panels describe how they approached the evaluation in the ‘Introductory remarks’ section of the Panel Reports. Most panellists followed the roadmap included in the panel instructions document (instructions in Appendix C) and contacted their fellow panel members by email or Skype to plan ahead of the site visit. Many panels requested additional materials, which were provided by the evaluation units. A number of panel chairs contacted the departments for clarifications, whilst some also sent their intended interview questions for the site visit in advance. Chairs were asked to arrange the details of the site visits with departmental contacts.

The early part of the site visit focused on academic departments. Panellists conducted interviews with departmental staff and management teams, and visited research facilities and infrastructure. During the last two days of the site visit, the panel chairs convened to interview the eight faculty management teams and the University Management. During the final session of the site visit, the faculty panels listed the strengths, weaknesses and recommendations for their assigned faculties and the University Management level. The preliminary results were presented to the University Management, together with a series of observations provided by the Coordinating Chair.

Panel reports

After the site visit, the panel reports were finalised and coordinated by the panel chairs. Panellists were invited to review and comment on the reports, prior to distribution to the evaluation units for fact-checking. In some instances, this process resulted in some points of clarification, which were considered and resolved by panel chairs. Finally, the reports were published on the RED19 website.

The panel reports, presented in Part II of this volume, are based on the background materials, self-evaluations, any additional materials provided by the evaluation units before the site visit, and the information provided during the site visit (Appendix A). The panel reports and self-evaluations are based on an identical template, and it may be of value to refer to the self-evaluations when reading the reports in order to gain a deeper understanding of the panels’ conclusions and recommendations.

5. CONCLUSIONS BY THE RED19 PROJECT GROUP

RED19 has been a major undertaking by the University of Gothenburg and has engaged many colleagues at the University. We conclude that RED19 has fulfilled our expectations, to define the prerequisites for performing high quality research, to identify strengths and weaknesses in our processes, and to produce concrete recommendations and suggestions for improvement. The panels observed that research quality at the University generally is of high quality and in many instances at the international forefront. Nevertheless, the University has been provided with a number of recommendations that can underpin further improvement of research quality and the research environment. These varied greatly both in scale and scope; some were specifically related to the wide range and type of activities represented by the individual departments; others highlighted important reflections on funding structures, setting of strategic priorities and management across the University. The panel reports and recommendations together with the self-evaluations by the departments, faculties and University Management are rich sources for information to support further analyses of the diverse and productive research cultures at the University of Gothenburg. Delivering the benefits of RED19 will depend on effective follow-up of the panels' recommendations at the central University Management, faculty and departmental levels.

Follow-up and next actions

Aside from the general aim of providing management data to support improvements in the research environment at the University of Gothenburg, RED19 was also designed to form part of a quality assurance system for research. As mentioned above, the Swedish government assigned the Swedish Higher Education Authority (UKÄ – universitetskanslersämbetet) with further developing their quality assurance system for research at Swedish HEIs in 2017.⁹ This system will be based on the following six assessment areas:

- governance and organisation;
- preconditions;
- design, implementation and outcomes;
- student and doctoral student perspective;
- collaboration and impact;
- gender equality.

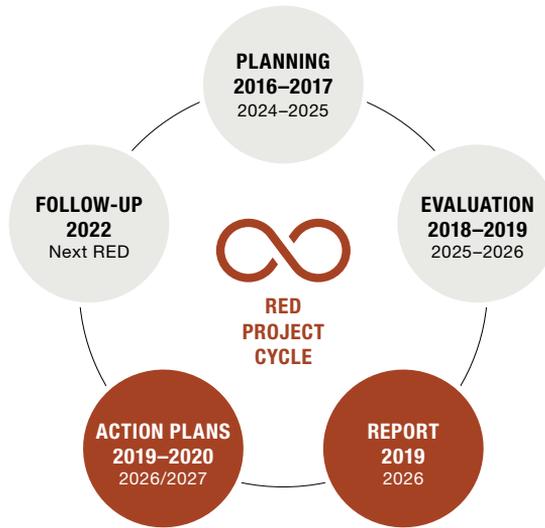
Thus, UKÄ's assessment areas are well aligned with the assessment areas of RED19.

UKÄ is performing a pilot assessment in 2020 and has stated that one important area of consideration will be whether HEIs conduct regular assessments of their research and research environments that are supported by peer review to identify strengths, weaknesses and recommendations for improvement. HEIs should also

9. <https://english.uka.se/quality-assurance/quality-assurance-of-higher-education.html>

have systems in place to identify and manage the information provided by such reviews.

The head of each evaluation panels composed an action plan based on the recommendations of the expert panels. The actions plan was presented in December 2019. Responsibility for implementing and costing the plan lies with the evaluation units. After three years, the action plans and their respective outcomes will be addressed in the follow-up phase. Looking ahead, research evaluation exercises should occur at regular intervals (around every six years), both to meet government requirements and to form part of the University of Gothenburg’s quality control and continuous improvement activity.



This process will have a major impact on institution-wide decision-making processes, shaping strategy and policy, and informing future investment decisions. The University Management will incorporate the findings of RED19 into future institutional strategies, the Research Board will oversee scrutiny and implementation of the unit-level action plans and provide a mechanism for sharing experience and best practice.

Finally, the project group would like to thank everyone involved in planning and delivering RED19 - colleagues across the University, the Resource Group for helping us with the background materials, and all the expert panellists. Many people have been very engaged in the process and we are impressed by the efforts of our panels with special thanks to the panel chairs and Lena Gustafsson, who managed hold the last part of the evaluation together. We also would like to especially thank Anders Malmberg, Åsa Kettis and Camilla Mahdi, from the project group of KoF17 at Uppsala University for generously sharing their experience, and to Iain Robinson for sharing his vast experience to the design of the evaluation and drafting of the instructions to departments and peers.

**PART II
PANEL REPORTS**

**UNIVERSITY
MANAGEMENT**

UNIVERSITY MANAGEMENT

26	Introductory Remarks
28	Section A – Background and Research Standing
28	A1. Background
29	A2. Research standing
31	Section B – Leadership
31	B1. University leadership
32	B2. Recruitment and B3. Career structure
34	B4. Funding
36	B5. Feedback and evaluation
36	Section C – Complete Academic Environment
36	C1. Collaboration and networks within the University, other Swedish universities, and internationally
37	C2. Collaboration with external stakeholders, and relevance and impact on society
37	Section D – Academic Culture
37	D1. Academic culture
37	D2. Publication strategy
38	D3. Facilities and research infrastructure
39	D4. Transverse perspectives
39	Section E – Support
39	E1. Central research support
40	Concluding Recommendations

INTRODUCTORY REMARKS

The primary aim of RED19 is to:

- Evaluate contextually how research environments *promote* and *support* research quality.
- Provide input to further develop *systematic quality assessment* and offer information and recommendations for how to promote this.

The concrete objectives of RED19 are therefore to:

- Identify *structures* and *processes* that create good conditions for high-quality research.
- Evaluate *conditions*, *processes* and *structures* that underpin quality and renewal.
- Evaluate how a *complete academic environment* contributes to high-quality research.

In so doing, RED19 panels will **scrutinise** self-evaluations and other material for their:

Ability (*to be able*) and capacity (*to have the resources*) to:

- self-reflect (reflexivity);
- recognise strengths, weaknesses, and opportunities;
- propose constructive remedies and developments.

The panel is impressed by the general commitment to RED19 throughout the University of Gothenburg, including departments, faculties, and the university management. The RED19 project group deserves a special mention for its time, effort, and service-minded approach. The panellists' engagement has also been remarkable in preparing all the preliminary reviews, in participating in the site visits in Gothenburg, and in finalising their concluding reports.

In general, RED19 was well prepared and well organised by the university, and the overall impression of the process and the outcome is positive. Results show that it is evident that individual researchers, research groups, and whole departments at the University of Gothenburg show high dedication to their work in producing internationally competitive and even outstanding research.

The RED19 project is very ambitious and complex given the wealth of material for each of the three management levels – departmental, faculty, and university management – and its aim to produce an integrated evaluation. The actual review process turned out to be rather complicated, especially for panellists who were involved in all three levels and who had the mandate to coordinate multi-level work. At the same time, such comprehensive engagement allowed for a thorough

understanding of the whole university and its united efforts to produce high-quality research in high-quality research environments.

As a starting point for our evaluation, it should be noted that all RED19 panellists (132 in total) had access to the University Management self-evaluation, including supplementary data. In our panel, we reviewed all that material before the site visit.

Under the chair of Professor Lena Gustafsson, our panel comprises eight international experts who also served as panel chairs for the eight faculty-level evaluations. After the faculty interviews during the site visit, all panel chairs met for a preparatory meeting in advance of the meeting with University Management. The following day, at the closing panel of the RED19 site visit, we shared our preliminary feedback with the university management group.

In sum, we see the University Management self-evaluation as ambitious, informative, and well written; and given our overall positive impression of the RED19 process and outcome, we will focus below on areas where there is scope for improvement.

On behalf of the panel,

Lena Gustafsson
Panel chair

Panellists:

Leif Andersson
Anne Edwards
Hans Petter Graver
Arne Jönsson
Deborah Power
Sharon Rider
Anita Seppä
Kerstin Svensson

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

We conclude that the university organisation is formally representative and inclusive of the diversity at the University of Gothenburg (UGOT), with a certain degree of autonomy delegated to faculties and departments. The organisation follows a common structure with a university board whose overall composition and responsibility are regulated by Swedish law. We will comment briefly on the role of the teacher representatives in the board below, under section B1 Leadership.

Sahlgrenska Academy is the largest faculty in terms of both resources and research, especially if we include the ALF-contribution (governmental resource for clinical research). With basic funding, external grants and ALF-funding for research, Sahlgrenska Academy receives more than half of the total resources for research at UGOT. In contrast, the Faculties of Education and Fine and Applied Arts, for example, have very limited research budgets. This creates an imbalance between faculties as regards their capacity to engage in strategic investments in research.

In the longer term, the university might consider having fewer larger faculties comprised of broad cognate areas, for example all the social sciences including business, economics and education. This could simplify the organisational structure in order to achieve potential benefits, not least the facilitation of interdisciplinary activities. Furthermore, distributing larger amounts of funds to fewer stronger faculties would allow them to allocate core and initiative funding more directly linked to departmental research strategies, which in turn would allow for a greater faculty-level focus on the development of stronger research environments and on creating improved and sustained long-term conditions. However, one should be cautious to suggest major organisational changes since this might take the focus from other issues. A reorganisation should be a consequence of the new strategies and not vice versa.

The separation of research, education, and cooperation and outreach between the three Deputy Vice-Chancellors may be a risky division if linkages and synergies between education and research are not ensured. The presence of the Deputy Vice-Chancellor for Outreach in the education and research board is a good initiative to circumvent this risk.

Structure/ Decentralised decision-making/ Collegiality vs line management

Our general impression is that researchers are devoted not only to their research (and teaching) but also to the university as a whole as expressed in the collegial atmosphere at UGOT. However, we recognise a lack of proactive initiatives and strategic thinking. Although individual freedom is appreciated it may come at the cost of seizing and coordinating strategic opportunities. Within the given

structure, the university should decide and clarify tasks and competences for each of its levels: university, faculty, and department. Nevertheless, the role of the university level is not well defined: should it mainly serve as central management or as central leadership? Given this lack of clarity, we recommend that faculties become strategic actors and engage more in boundary work. As such, they could support the central level while assisting heads of departments, who must tend to everyday tasks and to whom the university level may be rather invisible. We will elaborate on this topic under section B1. Leadership.

Structure/ New buildings/Research infrastructure

One priority is the need for new/renovated buildings for the university. This is a major investment and an opportunity for strategic thinking. Unfortunately, this has become an area of urgency. Both the complex transition phase, during which research groups have to temporarily move to other locations, as well as the detailed planning of new buildings, must be professionally handled. If this is not done in an efficient and trustworthy way, the research as well as the education of affected departments will suffer significantly. Projects will lose momentum, opportunities for collaborations will be missed and trust in the different management levels will be damaged to a degree that employees will be inclined to prioritise self-interest over the common good. The result may be devastating for the future collaborations and success of the departments that are involved in this complex process. Consequently, the university leadership must act to provide professional assistance and leadership in the planning and construction of new buildings. We will elaborate on this topic a little bit more under the heading B4. Funding.

Researchers at UGOT have access to excellent research infrastructure. However, the reassignment of responsibility from upper management to the department level for infrastructure that is part of a national system, such as the Swedish NMR centre, must be reconsidered. Since national infrastructure is part of a competitive national system, the host university needs to be a highly active participant in the national discussion, in order to not lose out on opportunities for national resources, whether for funding or other aspects of development. This is extremely difficult to handle at the department level. In general, research infrastructure represents a large investment for the university, and UGOT needs a clear strategy for all types of research infrastructure.

A2. Research standing

The UGOT research standing is evaluated in the reports from each of the department-level panels. Suffice it here to say that there are outstanding researchers at the University of Gothenburg, some of whom are supported by world-class infrastructures.

It is a strength that the university has a clear concern for planning, and that it is prepared to meet future national and global challenges. However, the complexity of the research portfolio at UGOT (including centres, infrastructures etc) makes it difficult to prioritise funding, recruitment and support.

Although questioned by some, UGOT Challenges is an interesting strategic initiative that has created new arenas for internal collaboration and that has resulted in high-quality research that would not have occurred without this project support. But it is unclear if these trans- or interdisciplinary research initiatives will continue. It is also unclear whether UGOT, whose researchers in many instances are dedicated to contributing to a sustainable future, has a clear strategy to support this engagement. Furthermore, AI is mentioned as a future area of priority, but to us it seems as if this initiative is a reaction to outside pressure. To address the need and call for more interdisciplinary research (as suggested in RED10) by setting up multidisciplinary centres – which are limited in time to 3+3 years – seems a relatively weak initiative for promoting interdisciplinary research. UGOT Challenges is a good complement, but it is just a beginning and is unlikely to be enough to encourage, promote, support and improve the conditions for interdisciplinary – even transdisciplinary – research. Overall, this signals that there is a lack of strategic thinking (and strategic resources) at all levels in the organisation.

We are aware that the new management has just recently taken office and has started the process of formulating new strategies for the university. The vision of being world-leading, and of being highly specialised in every research area in all faculties is an inclusive ambition. However, in the self-evaluations from the university management and from the departments, there is a strong emphasis on organisation and economy, at the expense of reflection over what the university is for. For instance, many strategies are concerned with the goals of expansion (increased external funding, student enrolment, etc) and prestige (international recruitment, publication in top-tier journals). But universities do not exist to expand and win reputation competitions; rather, these are, one hopes, effects of performing its primary mission of higher education and research well. We hope that the university will be aware of this foundational principle in its endeavours to stimulate high-quality research and teaching.

The timing of RED19 is therefore perfect. In conclusion, there is a need for strategic planning at UGOT.

We recommend a coherent vision and strategy for “building a new university for the future”. Certainly, the opportunity is there.

SECTION B – LEADERSHIP

B1. University leadership

The structure of the university is clearly defined in the self-evaluation. The ultimate decision-making body is the University Board, composed of the chair and 14 board members. Teaching staff appoint three members and students appoint three members; the remaining members are appointed by the Swedish Government. The board must ensure an appropriate use of public funds, which are distributed to the eight faculties. The chain of command for implementation of the board's decisions is the Vice Chancellor with support from the Pro-Vice Chancellor and the three Deputy Vice-Chancellors. The composition of the board is decided by the government; the collegial influence on the board therefore lies in the hands of the three representatives of the teaching staff (which in the Swedish system includes professors, lecturers and assistant professors). It is not clear how these three staff members can fully represent the diversity of faculties and their research priorities on the board. In fact, many departments have pointed out a lack of communication between the University Board and those involved in the everyday activities of departments, which indicates a lack of collegial influence at the level of the board.

At present, communication between the board and the faculties and departments lies in the hands of the Vice-Chancellor and the management team. The Vice Chancellor meets with the management team every two weeks and with the deans of the faculties every two weeks. Four times a year, the Vice-Chancellor meets with the deans and the heads of department for strategic discussions. Twice a year University Management meets with each faculty and with its department heads for follow-up and feedback. Since the major reform in 2013, which decentralised decisions to heads of departments, the role of the faculties has become less clear and articulation in relation to decision-making is not ideal. There is a faculty board with elected members and formal decision-making power, but no such decision-making body is present at the department level. This means that although the department level takes most decisions, central management most frequently interacts at the faculty level.

In the yearly planning cycle, University Management first writes its planned activities based on Vision 2020. The faculties then write their plans based on the University Management plan and finally, departments are advised to write their action plans based on those of the University Management and the faculties (but in some instances, departments do not write such plans). Thus, the perspectives of independent departments and research groups are not directly involved in this yearly planning cycle. This might explain why, from our impression, the faculties seem to have little strategic role and the university level is mostly invisible at the departments.

We recommend that University Management revise the procedures for strategic planning and action plans in order to clarify the roles, responsibilities and

decision-making powers at the different levels of the organisation as part of a unifying strategy for the university.

Since research quality is based on the creativity of the researchers, we ask for more collegial strategic influence at the university management level. One example could be the formation of a “senate” in which strategic research issues are discussed among colleagues. Such fora could be complementary to the Research Board and a forum for open discussions and the presentation of bottom-up initiatives. In such fora, the teacher representatives of the University Board could also be active in ensuring a bottom-up perspective on issues set before the board.

We recommend that University Management investigate the opportunities for creating fora for collegial discussion of constructive ideas at various levels of the organisation.

We also have the impression that there is a very slow or even non-existent communication pathway between University Management and the day-to-day running of the departments. It is a real weakness that the university level is slow in reacting to requests and in giving clear policy signals. There is a high risk that long-term strategic decision-making gets lost in the line management structure.

We therefore recommend University Management to consider the paths of communication, both top-down and bottom-up. More open fora for debate, information and suggestions would likely be helpful for both the staff and the management.

Below we would like to point out some of the strengths of UGOT with respect to leadership which we found commendable.

Strengths

- The REAL training programme is a valuable initiative that should be expanded, if it is economically feasible.
- The GULD training programme for Deans (a copy of SUHF training) is a valued support function.
- Several structures are in place to support young scientists, scholars and research leaders.
- The recent formation (2018) of a Research Board that includes faculty representation for discussing and setting the research agenda, as well as the two Deputy Vice-Chancellors, so that cross-cutting issues for research, education, and cooperation and outreach are considered.

B2. Recruitment and B3. Career structure

The career system does not seem to be harmonised between the three levels of the university (central, faculty, and departmental) nor across the different faculties. Recruitments and attractive conditions for employees, including the career system for young researchers, form the backbone for the success of a university. An

increased focus on this important issue, spanning the eight faculties and the three levels of the university may be key to the further development of the university.

Many research groups/departments now recruit fewer PhD students. We believe that a mixture of PhD students, younger investigators and senior scientists is essential for a creative and high-quality research environment. The university should take measures to ensure a better balance. In this context, it also became evident that many of the leading and international researchers were approaching retirement. The generational shift is challenging and presents a risk for loss of key research competencies.

Strengths

- The university is in the process of becoming HRS4R (HR Excellence in Research) certified.
- International recruitment has increased.
- Real employment contracts with a full salary for PhD students, following recent national legislation, constitutes a major improvement.
- The recently established tenure track career position is an excellent means for attracting promising young scientists to the university, as illustrated by the Wallenberg Centre for Molecular and Translational Medicine.

Weaknesses

- There is a decline in recruitment of PhD candidates due to the current funding model. Several departments thus risk stagnation.
- External recruitment is still relatively low in some departments.
- Mobility is still slow.
- The university formally requires that all teachers conduct research but in point of fact research time for teaching staff is often quite limited and varied.
- The “retirement time-bomb” is not mentioned in the management report and even if the major impact is expected in a few years’ time there is an ongoing need for new staff. The engagement and involvement of management in this process is urgent. This could be a tool to enhance research standing and a strong incentive to faculties and departments.
- While the recently established tenure track career positions are an excellent means for promoting promising young scientists, recruitment at such an early career stage runs the risk of filling positions on the basis of expectations that may not be fulfilled, thus blocking the way for others.

Recommendations

- Harmonise the career system over the three management levels and between the faculties. This requires a systematic approach. Faculties and departments should develop coherent strategic plans that outline overall short- and long-term goals for recruitment.
- Take a closer look at the system of hiring and promotion, in particular in terms of lack of mobility. This requires a strategy, and a transparent plan and process.
- Formulate a strategic plan for the recruitment of key competencies to replace

- retiring research leaders and to strengthen the support for career progression.
- Establish a tenure track system that is subject to regular evaluations.
 - Increase the number of top-level international visiting professors.
 - Introduce a sabbatical system to enhance mobility where it is lacking.
 - The suggestion that participation in boards and committees should contribute to the qualifications of researchers may be a double-edged sword. If administrative work can outweigh scientific merits in applications for a research position, it will have a negative impact on the building of top-level university environments. A broadened merit system that does not undermine high-quality research and education should be the goal.
 - Phased teaching (low levels to start with and increasing) for young researchers may improve their performance and consolidate their research position while improving research/teaching integration.
 - Secure further recruitment of PhDs and make sure the programmes are up to the required standard. This might well be done by earmarking money at a higher level than the department.

B4. Funding

The relatively high proportion of external funding at Swedish universities, i.e. the sum of governmental funds distributed in competition via the research councils and other governmental agencies together with other sources of external funding (EU, private, semi-governmental etc.), in relation to the direct governmental resources for research (“basanslag”) to universities and university colleges, is a direct challenge to the autonomy of universities. In the current system, the degree of freedom necessary for the university management to set the long-term conditions for the university’s ultimate goals of providing the highest possible quality in education and research, is diminishing. If the relative aims set or tools employed to achieve these goals, such as a high degree of collaboration, publications in high impact journals, or successfully attracting external grants, start taking on a life of their own, then the autonomy of the university is restricted and even undermined. Collaboration, for example, should instead be viewed as a way of achieving the more fundamental purpose of improving research; publication in prestigious journals and grant capture from major funding agencies should be seen as signs that the research conducted is high quality, not as ends in themselves. Collaboration in particular is often described as an aim in itself. However, if collaborations, whether internal or external, do not lead to increased quality in research and/or education for the collaborators involved, their value is highly questionable. In the worst case, it could even be detrimental.

The allocation of basic funding at the University of Gothenburg is 20% performance-based, 65% fixed-rate and 15% is kept at the central level for strategic investments. The fixed funding rate is based on the estimated number of professors per faculty who were in place decades ago. The model needs to be reviewed and replaced by a more updated and rational system that better reflects realities in 2018. In the mid-80s the national system was changed so that basic funding was allocated as block funds for research and research training, at the same time universities

were given the right to recruit full professors and other staff. During the 1980s and 1990s there was actually a decrease in block funding for research due to the economic crisis in Sweden, while undergraduate education increased dramatically without a corresponding increase in research funding. In the first decade of the 21st century, research funding increased again. This increase was associated with the introduction of performance indicators (bibliometric indicators and external grants) for funding allocation (20%). The major increase in government research funding was, however, allocated via the research councils. This model of resource allocation is maintained throughout the system. Faculties and departments also seem to use variations of this model. Only small changes in block funding have occurred thereafter. With this background, we understand why there is a reactive rather than a proactive atmosphere at the university. We also conclude that these models for resource allocation may be the basis for our impression of a lack of strategic culture at the faculty- and university management-level.

The Swedish government is now investigating the possibility of changing its resource allocation system. This is positive, but the outcome of this investigation is not yet clear. However, again we see that there is a golden opportunity for the university to revise and modernise its own resource allocation model within its planned work on new strategies. One idea could be to test a model varying the proportion between activity-related allocation, basic allocation for research-based education (teachers' research time), PhD programmes, strategic investments etc. Nonetheless, Swedish universities need long-term and stable conditions, which calls for advanced analysis and caution when changing the model for resource allocation.

Recommendation – *revise the present model for the allocation of block grants and adapt it to the goals of the university. An internal investigation should be initiated. The results of this study should be of great help to the revision of the present model for the allocation of block grants. The revised resource allocation model should enable greater responsiveness to rapidly changing circumstances. The university should be prepared to face the consequences of a revised model's impact on stability and long-term conditions.*

With this general recommendation, we would like to point out specific issues that need to be addressed:

- Given the huge investments being made over the unforeseeable future, there is a case for the university management to develop a sustainable model for funding larger investments (buildings and infrastructures). See also A1. Background.
- The on-off funding system in Sweden is unpredictable and creates much uncertainty. When coupled to one-off co-funding, the risk of imbalances in the system becomes all the greater. There are many examples from departments where larger grants and co-financing ends without strategic thinking about how to terminate the planned activities and maintain and exploit the competencies the project has generated. Moreover, the co-funding system is conservative.

- There is not much in the way of EU grants at UGOT compared to the other larger Swedish universities. Not only does this result in fewer resources, but it can lead to research quality being less competitive in the long run.
- A new funding system should take into account the points raised in this RED19 report, such as:
 - PhD programmes;
 - Strategic recruitments;
 - Research time for teachers.

B5. Feedback and evaluation

We refer to this aspect under section B1 Leadership and B2 Recruitment and B3 Career structure.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- UGOT is a comprehensive university with research of generally high standing, and a great deal of internal and external academic collaborations. The experiences from UGOT Challenges and the research centres across the university are clear examples.
- There is a strong and well-established collaboration with Chalmers.
- Communication with other universities in Sweden appears to be excellent, with regular meetings with research universities and all HEIs in Sweden, and a willingness to cooperate on several issues.
- UGOT is a member of several international networks and the Vice-Chancellor has many years' experience in international collaboration and networking, for example U 21.

Weaknesses

- Again, we do not see a coherent strategy for collaboration at the university management level.

Recommendations

- Take advantage of the experience from the evaluation model of UGOT Challenges and other centres for future policies and investments.
- Develop further strategic collaboration with Chalmers and perhaps another comprehensive university in Sweden.
- Focus on fewer international networks and try to select them based on clear research goals, e.g. encourage wider participation in international research collaboration within the EU.

C2. Collaboration with external stakeholders, and relevance and impact on society

Strengths

- Many departments are very active in collaboration with non-academic partners. There seems to be a genuine engagement.
- The recent appointment of a Deputy Vice Chancellor in charge of outreach activities is a promising initiative.

Weaknesses

- There appears to be a lack of strategy and unified policy.
- There are few incentives for outreach activities as long as these are not seen as merits. They are not compensated for in terms of time, etc.
- There is no follow-up (apart from RED19).

Recommendations

- There is a need for a strategy and policy for external collaboration as well as incentives related to the research goals of the university.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Our thoughts regarding academic culture are summarised in the sections below, D2 to D4.

D2. Publication strategy

Strengths

- The University promotes open access publication.
- Part of the research funding to faculties is performance-based – thus taking external funding and scientific publications into consideration.

Weaknesses

- There is no university-wide publication strategy (There might also be strengths in this, as the cultures differ widely between faculties/areas of research).
- In comparison with other comprehensive research universities in Sweden, UGOT has the lowest share of co-authored publications.
- Emphasis on publication in journals with high JIF can be a problem for multi-disciplinary research centres, and penalises individual researchers.

Recommendations

- Publication policies need to be based on the overall goals for research, while taking into account differences in disciplinary cultures and practices.

D3. Facilities and research infrastructure

The panel has become aware of two areas in urgent need of development at the University of Gothenburg. One area of concern is the delegation of responsibility for heavy infrastructure to the departmental level, which may be devastating both for the infrastructure but also, depending on the conditions, for the department responsible. The other area of concern is of an even greater magnitude in foreseeable negative consequences. The university is in the process of launching several long-term investments in new buildings. If not professionally handled, this may not only incur long-lasting economic consequences for the whole university, but it could also have a negative impact on the quality of research and education, as well as on the trust of leadership at all levels, which in turn could have very negative consequences for the long-term development of the university. (See also A1. Background for further discussion of these two areas).

Strengths

- World class, well-equipped and easily accessible core facilities, together with first class research infrastructures, are strong assets for high quality research and when recruiting international researchers.
- The university is active in national and international collaboration.

Weaknesses

- There seems to be no long-term strategy, nor any university system in place, for large investments and the planning and construction of new buildings. This is especially serious at a time when the university seems to be in the process of making major investments in new buildings.
- Large infrastructure demands larger shares of co-financing, clear rules and clarified responsibilities at the different management levels of the university.
- The responsibility and management of heavy (national) infrastructures, including the national Swedish NMR centre, has been moved to the departmental level. Depending on the circumstances (handling, funding etc.) the consequences could be devastating, not only for the infrastructure but also for the department responsible.
- Without information about to what extent MAX IV is used by researchers, it is difficult to judge whether co-financing the facility really gives value for money.

Recommendations

- The university is advised to immediately start developing a system for the complete planning and processing of new buildings. This requires professionals for the planning and building process, such as temporary re-allocation of staff, students, laboratories and infrastructure.
- Make the planning and construction of new buildings a platform for long-term strategic thinking and continued work with collaborative research initiatives.
- University Management and the faculties should together have a stronger hold on managing infrastructures, since the responsibilities embrace not only funding of the infrastructure (including running costs), but also agreements, rules and fees for the accessibility of the infrastructure by different stakeholders

(internal and external). A common university system for heavy infrastructure may very well be combined with departmental operation when it comes to the daily handling of the infrastructure. Continuous updating of all components of the infrastructures and core facilities is recommended.

- Hosting a national infrastructure (accessible to internal and external users) requires engagement at the university management level, which needs a clear university system for transparency and clarity as concerns distributed responsibilities and conditions.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- UGOT follows Swedish legislation in all its efforts to ensure fairness, equal opportunity and equality before the law.
- UGOT has made substantial progress in terms of internationalisation.

Weaknesses

- There is a risk that initiatives for equal opportunity and gender equality are limited to isolated temporary projects or to a certain part of the organisation.
- At the same time, there is also a risk that management may fall into a general practice of “developing support and control systems”, as well as “writing policies, rules and plans”.

Recommendations

- Continue the good work on developing strategies for equal opportunities, gender equality and diversity. Keep up the good work for this throughout the university, while making sure not to make questions of quality in education and research into issues to be decided by administrators.
- Use the data from RED19 for further analysis of gender equality and include this aspect in recruitment planning, which will intensify as more staff retire.

D4.2 Internationalisation

We have no further comments but refer to sections B and C.

SECTION E – SUPPORT

E1. Central research support

Strengths

- The Grants and Innovation Office provides excellent grant-writing support.

Weaknesses

- The level of support provided by the Grants and Innovation Office does not cover all levels of support and does not reach out to all departments.

Recommendations

- Investigate the needs of departments and address gaps in grant-writing support. It may be necessary to reinforce the staff of the Grants and Innovation Office as several departments/faculties are contemplating hiring personnel in this area – which suggests that a need exists. It would be more effective if all staff in this area are located in a central office.
- Establish mechanisms to maintain administrative staff levels when they decline due to prolonged illness or other impediments. Furthermore, depending on the funding success of departments, administrative staff requirements may vary from year to year. The management should consider addressing this situation by having a pool of “extra” staff or by adopting a more flexible approach to staff mobility within the institution.

CONCLUDING RECOMMENDATIONS

Below we summarise the most important points.

Organisation

With the decentralised management structure at UGOT, departments have gained more autonomy at the cost of the faculty level, which has lost part of its decision-making power when faculties were turned into vessels between levels. In order to strengthen the conditions for long-term strategic thinking and work, we recommend that the faculties regain some roles and become nodes for medium and long-term strategic planning and thinking.

Leadership

The line management structure in its present form, which features a weakened faculty level, has put departmental collegiality at risk, especially in cases where decision-making bodies are converted to advisory boards. In order to balance an overemphasis on top-down management, collegial bodies should be established.

We therefore recommend that University Management think more creatively, inclusively and effectively about how such bodies and/or channels can be established. We also recommend that University Management think carefully, and in consultation with faculty managements and departments, about the procedures for recruiting members to these bodies.

As regards communication with faculties, we recommend that University Management take immediate measures to become more effective in responding to issues raised and to questions asked by this level. By turning faculties into more strategic entities, the incentives for University Management to engage with them would increase, whilst also giving faculties more leverage and credibility with departments.

The appointment of a Deputy Vice-Chancellor responsible for issues regarding outreach and cooperation is very promising. University Management is urged by

the panel to implement forward planning directed towards the societal contribution of UGOT at the regional and national level (outreach to stakeholders). The piecemeal outreach activities currently ongoing appear to be mainly bottom-up. University Management should prepare a strategy that, through outreach actions (to society, politicians, industry and other stakeholders), identifies UGOT as a strategic partner of choice.

Recruitment and generational shift

Given the fact that large cohorts of staff are retiring and will be retiring across the university in the coming years, and given the fact that recruitment to post-graduate education is decreasing or stagnating in many departments, University Management need to think strategically about the demographic structure and generational shift. Staff renewal represents a significant opportunity to stimulate and strengthen research standing and internationalisation.

A worrying decrease in the recruitment of PhD students has been reported in most faculties. The university should secure further recruitment of PhDs and ensure the programmes live up to the required standard.

Career paths and conditions

In order to live up to the ideal of research-based teaching, and as an important ingredient in a smooth generational transition, University Management must introduce and ensure a policy where lecturers are guaranteed research time (forskning i tjänsten).

In this context, we also recommend that University Management think seriously about how to compensate researchers and teachers who dedicate part of their precious time to outreach activities.

Harmonise the career system over the three management levels and between the faculties. This requires a system approach, a transparent plan and process. Also take a closer look at the system of hiring and promotion, in particular with respect to mobility and strategy.

Make a strategic plan for the recruitment of key competencies to replace retiring research leaders and establish tenure track career positions for attracting promising young scientists to the university. The tenure track efforts should be subject to regular evaluations.

Funding

The models for resource allocation may be the basis for the lack of strategic culture at the faculty- and university management levels. There is a golden opportunity to revise and modernise the resource allocation model within the planned work on new strategies.

We recommend revising the present model for the allocation of block grants and adapting it to the goals of the university. The revised resource allocation model should enable greater responsiveness to rapidly changing circumstances.

In times when competition for grants offered by agencies and funds in Sweden are increasing, and for the sake of augmenting the research standing of UGOT, we recommend that the university level increase support for researchers intending to apply for EU funding.

Infrastructure and Investments

There seems to be no university system in place for large investments and the process for planning and building new buildings. This is especially serious at a time when the university seems to be in the process of several large investments in new buildings. In general there appears to be no long-term plan for larger investments. It is urgent that these issues be addressed.

UGOT has some exceptional and world-renowned research infrastructures. University Management should strategically consider, in partnership with faculties (and users), their sustainability and new models for functioning. There was clear evidence during the site visit that staff were looking at alternative functional models.

PART II
PANEL REPORTS

FACULTY OF ARTS

FACULTY OF ARTS

46	Introductory Remarks
47	Section A – Background and Research Standing
47	A1. Background
47	A2. Research standing
48	Section B – Leadership
48	B1. Leadership
49	B2. Recruitment
50	B3. Career structure
51	B4. Funding
52	B5. Feedback and evaluation
52	Section C – Complete Academic Environment
52	C1. Collaboration
53	C2. Relevance and impact on society
53	C3. Research-teaching linkages
55	Section D – Academic Culture
55	D1. Academic culture
55	D2. Publication strategy
56	D3. Facilities and research infrastructure
56	D4. Transverse perspectives
57	Section E – Support
57	E1. Internal research support
57	E2. University-wide support
57	Section F – Other Matters
57	F1. RED10 evaluation
58	Concluding Recommendations

INTRODUCTORY REMARKS

Panel

Sharon Rider (Chair), Uppsala University
Annelie Bränström-Öhman, Umeå University
Per Ditlef Fredriksen, University of Oslo
Frans Gregersen, University of Copenhagen
Johnny Kondrup, University of Copenhagen
Mathilde Skoie, University of Oslo

In preparation of the site visit, the chair and some of the panellists submitted preliminary reflections and/or questions to bring to the table. The RED19 project group aided the panel's work with the greatly appreciated support of Rangnar Nilsson, who meticulously documented all written and oral comments throughout the process, and skilfully synthesised them into the template. Various versions of the present report have been circulated between the panel members since the site visit, to ensure that each member had the opportunity to make the emendations that s/he deemed necessary, to which the other members could respond. The panellists' original remarks, as well as the ensuing discussion both during and after the site visit (the latter conducted by email), reflected substantial disagreement on certain issues between panel members. Thus, the report contains analyses and recommendations that are at times in conflict with one another. The report has been constructed so as to communicate all the perspectives represented in the panel on those issues. The panel chair integrated the panellists' editorial comments, revised the report, and disseminated it to all members of the panel for approval before submission.

The Faculty of Arts has submitted a coherent and balanced self-evaluation report, which insightfully confronts the challenges it faces. Unlike many of the self-evaluations from other levels of the university that members of this panel have evaluated during the RED19 process, the Faculty of Arts did not emphasise organisational and financial questions at the expense of reflection over what the university is for. The panel commends the Faculty of Arts for this, and recognises that the faculty is in a particularly difficult position regarding the negotiation between the demands of the university as an organisation in the service of stakeholders, on the one hand, and as a collective of teachers, researchers and students concerned with cultivating and sustaining professional norms, on the other.

That having been said, there were panel members who expressed the view that the Faculty Board should demonstrate more vision and strategic leadership in working toward common goals based on shared principles and ideals through collegial decision-making processes. Other panellists found the model of minimal interference from the faculty in departmental matters of strategy and decision-making promising and propitious. Nonetheless, there was general agreement in the panel that both overview and coordination are needed to ensure the quality of research development throughout the faculty. This calls for both careful analyses of the

future challenges facing the humanities at the University of Gothenburg (UGOT) enterprising new ideas and practical, concrete measures. However, decisions must be grounded in dialogue with the aim of achieving a broad consensus, while also ensuring a transparent process and that the status and import of decisions made are clear and straightforward.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Many of the departments' self-evaluations and site visits involved discussions about the re-organisation of the faculty in 2009, when current departments were formed. In most cases, it appears quite clear that the process of consolidating the new departments is still ongoing. Similarly, the faculty is not quite consolidated either. This is an issue that the faculty has to keep working on in the years to come, both in itself and in support of the departments. The move to the new Humanities Centre could be considered a golden opportunity also in this respect. The grounds for and justifications of planned activities should be made explicit, and serve as the governing principle according to which the day-to-day tasks of research and teaching should be organised. The current organisation and structure of the faculty still requires long-term pro-active efforts to optimise its functioning.

A2. Research standing

The Faculty of Arts recognises that research initiatives should grow organically, and thus refrains from drawing up top-down research plans. This is a wise strategy, which should be maintained. But it must be balanced by bodies that can secure overview, coordination and quality.

Coordination and overarching bodies must be transparent, and the reasons for priorities and strategic decisions should be clear to all faculty members. Transparency regarding the use of strategic funds, for instance, is important. Knowing how money is being used is essential for understanding what the leadership's priorities are, what it is doing and why. For the same reason, the vision and goals of the faculty should be clearly formulated, and the process leading up to that formulation should be unambiguous.

In their self-evaluation, the faculty wrote: *“One possible internal strategy could thus be to stimulate research towards these goals by financial incentives, e.g. to strategically promote certain types of publications or collaborations.”* While this strategy does not necessarily conflict with the promise not to *“develop a hands-on policy with the aim of promoting certain research areas or research profiles”*, there is a risk that it is perceived by staff as doing just that through “soft power”.

The ambition to establish a system that will allow teachers to plan for concentrated periods of research is commendable, but not easy to realise. The faculty should work together with the departments to devise guidelines that are flexible enough to allow for variation between departments depending on “local” conditions, while sufficiently coherent so as to constitute some kind of transparent, predictable and effective strategy.

The panel suggests that the faculty take a closer look at the reward system in its entirety, and seek a faculty-wide system for crediting substantial contributions to public discourse and interchange over disciplines, professions and specialisations (“samverkan”).

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Faculty leadership

Strengths

- The panel has full confidence that the faculty leadership is ambitious in its efforts to address the existing issues and problems.

Weaknesses

- Some panel members consider the structure of responsibilities and decision-making powers, especially the relationship between the Dean and the Vice-Deans, on the one hand, and the Faculty Board, on the other, somewhat unclear.

Recommendations

- If the panel is in doubt, there is some risk that employees at UGOT are as well. We recommend that the faculty work on clarifying the delegation of responsibilities to different bodies and functions within the faculty and communicate the organisational structure on its webpage.
- Multidisciplinary projects or programmes have been described as part of the vision of the faculty, both in relation to the new Humanities Centre, and as part of the strategy to consolidate the structure of the faculty’s organisation. If this is the case, the faculty should have an explicit policy with regard to such initiatives. Multidisciplinary efforts could be provided with substantial seed money through a collaboration between relevant departments, for example.

B1.1 Faculty leadership

Weaknesses

- Some panel members expressed the view that the structure of decision-making and the allocation of responsibilities between UGOT’s central management and the leadership of the faculties in the new line organisation is not entirely clear.
- Some panellists suspect that the difficulty in ambitious, long-term strategy

in decision-making is an effect of the far-reaching decentralisation of the decision-making structures at UGOT. In the opinion of some, the process of decentralisation at UGOT seems to have been implemented too strictly, and thus to have led to an incumbrance to leadership and accountability at different levels. Other panellists have expressed concern that the current model runs the risk of encouraging micromanagement on the part of leadership. On this view, decentralisation can be seen as a positive development, and a promising way to structure the organisation of research and higher education.

- It is mentioned in passing under B1.2 that the initiative “*to stimulate new, cross-disciplinary constellations with the power to address great societal challenges*” has led to more funding being awarded to already established groups/profiles/centres. While the faculty may be applauded for its good intentions, it is clear both from its self-evaluation and that of University Management that one of the consequences of the Matthew Effect (more resources to those who already have a great deal) is that it creates hindrances for multidisciplinary or cross-disciplinary work. And the Matthew Effect cannot be avoided as long as top-tier journals are discipline-oriented, a state of affairs that no faculty or university leadership can control. Furthermore, studies have indicated that top-ranked journals are becoming more homogeneous in both form and content, rather than moving toward heterogeneity. Thus, there is reason to think that the conflict between rewarding publications in journals with high JIF and encouraging multidisciplinary will not disappear any time soon.

Recommendations

- The details of the division/distribution of responsibilities through the “University of Gothenburg Renewal model” are currently under review by the Vice-Chancellor. The faculty leadership is encouraged to lend its support to this work, and, in consultation with central management, to strive to ascertain what is or is not within the remit of the Faculty Boards.

B2. Recruitment

Please see strengths/weaknesses for B3 below.

Recommendations

- The faculty should have unambiguous guidelines for the departments regarding mid- or long-term (5–10 years) recruitment plans. The extent to which departments may recruit new members of staff without these appointments being anchored in such a plan must be discussed. Similarly, the faculty might consider to what extent it should be involved in the recruitment process at the departmental level. The outcome of these considerations should be made explicit in a faculty strategy document, which ought also to include gender equality goals and plans. Of particular interest is a plan for the recruitment of promising early-career researchers, whether they are identified at UGOT itself or through applications in open calls. This will require routines for helping these researchers adjust and be integrated in the university. Such routines are best anchored at the faculty level.

B3. Career structure

Strengths

- The faculty wholeheartedly endorses the system of personal promotion from reader to professor (“*an important career step offered by the University of Gothenburg*”, p.13). Some of the panellists agree that this is fruitful. The security offered by promotion can lead to very successful and daring initiatives on the part of promoted professors, resulting in eminent international and interdisciplinary research networks, large research grants from funding agencies, publication in leading journals and research-based teaching in inventive new programmes of study. At the same time, there is also a risk that remaining throughout one’s career at the same department leads to an “institutionalising” of the research conducted. But it is by no means the case that internal promotion and renewal are necessarily at odds with one another. Like any other instrument, the possibility of promotion can be very useful, if it is applied carefully.

Weaknesses

- Other panellists find this system of personal promotion highly problematic. In their view, the system promotes career security, predictability and loyalty among the present staff, and it makes it possible to attract senior lecturers without giving them more than 10% research time (since they can look forward to promotion). Seen from the point of view of attracting the best candidates, the personal right to promotion is infelicitous, since it means that many professorships are filled without competition. Potential consequences include decreased mobility, and impeded strategic planning in the distribution of professorships between departments and disciplines within the faculty. There is also a risk that some see the professorship as a personal reward for earlier achievements, rather than as a platform for taking on new responsibilities and projects. Thus, some panellists view the personal right to promotion as a threat to renewal in the academic environment and to the quality of the research conducted.

Recommendations

- The faculty needs a clear and consistent policy for the balance between personal promotions and open calls; the panel is in agreement in recommending that open calls be used significantly more than they are at the moment. At the same time, it should be kept in mind that it will be difficult to attract highly-qualified senior lecturers if the right to promotion is abolished without revising the formula for the allocation of research time.
- Should the system of personal promotion be restricted to favour open calls, the faculty should make sure to follow up on the risk of gender bias in the recruitment process, as men tend to be more successful than women in open calls.
- All things considered, some panellists recommend as the best way forward that the faculty retain the possibility for promotion to professor for lecturers and readers, provided that i) the department and faculty see the need for or desirability of a professorship in the applicant’s area of expertise as part of its overall strategy, and ii) the standards set for promotion to professor are high

and maintained through a stringent peer-review process. The aim should be that every member of the academic staff has his or her position as a result of an open call and an explicit and rigorous process of evaluation, which means that the faculty needs in the first instance to make sure that the positions of reader/lecturer are always filled on such a basis and no other.

B4. Funding

Weaknesses

- The faculty emphasises that increased external funding is of the utmost importance in light of its “current fragile economic situation”. Researchers in some departments, however, report that if a teacher secures external funding for research, the department cannot recruit a substitute. This is a problem that needs to be addressed. Another risk attached to the emphasis on grant capture is that a disproportionate amount of time is devoted to preparing applications, of which only a handful will be successful. Thus, one consequence of this model is that what little research time is available to readers is spent on the application process itself, rather than research or scholarship. This issue is related to a reflection made in the faculty’s self-evaluation with respect to the use of resources, especially faculty members’ time, for administration. If the core activities of the university are teaching and research, one gets the impression that the university’s current organisational model is an inefficient use of the funds available.

Recommendations

- The self-evaluation states that the faculty is currently reviewing the model for allocating funds to the departments. The faculty should conduct an analysis of the consequences, in the long and short term, before any decision is made.
- The model considered is a reinforcement of the Matthew Principle, insofar as it amounts to more resources to those who are already funded. The motivation for this is understandable. But there are risks involved. For one, it means that the faculty may find that it has put all its eggs in one basket, which constrains their capacity to maintain a diverse profile of potentially innovative research orientations. The model also entails that the responsibilities of the future course of the research at the faculty is de facto outsourced to the funding agencies. Another danger is that funding tends to pile up around certain successful networks and individuals, which may mean that the money is not being put to work in the optimal way. However difficult and complex the challenge of balancing the advantages and disadvantages may be, any plan of action that is developed and implemented must be preceded by prudent deliberations as well as ambitious aims.
- The faculty might consider earmarking funding for successful individuals and groups for proposals on how to bring in other colleagues from the faculty whose areas of competence are germane. Another suggestion would be to earmark the extra funding for “master classes” for advanced level and PhD students in the research area in question, out of which new research initiatives could emerge. This would also contribute to strengthening the link between research and teaching.

- The faculty could also consider the possibility of co-funding mainly externally funded PhD students (since funding agencies are often unwilling to finance the year of course work) as a strategy to bring more PhD students into the system.
- To the extent that money is reserved, whether at the level of the UGOT central administration or at the faculties, it is important that the use of these funds and the reasons for the investments made are transparent, i.e. that they are not perceived of as ad hoc, but understood as an organic part of an overall vision. It is thus crucial that the budget model be accessible and unambiguous to the staff. They need to know what is being prioritised and to what ends, where resources are going and when. Ensuring this understanding is key to the legitimacy of collegial bodies. It has a powerful effect on incentive, and, in the long run, on research and teaching activities as a whole.
- Regarding reports that external funding creates a need for temporary staff to take on the teaching load of the grantee, the faculty might consider a buy-out system, such as exists in Norway, which entails that personnel costs for the staff who move from teaching to research are used to cover the expenditures of recruiting temporary teacher replacements.

B5. Feedback and evaluation

Recommendations

- We endorse the faculty's wish for a central system provided by the university for the collection and processing of information about research output, collaborations etc. At the same time, such a system should be a support to the staff, not another administrative burden.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Recommendations

- The allocation of SEK 500,000 per year to each department for bringing in international guest researchers is a good instrument, but perhaps a bit extravagant in a context of strained finances. The money could be used for other purposes – e.g. for supplementing PhD stipends, or creating a fund for sabbaticals abroad (see below and C3.2).

C1.2 Collaboration with external stakeholders

Recommendations

- UGOT has an impressive tradition of public outreach. This tradition has been strengthened by some of the strategic initiatives taken by the faculty, notably, the Centre for Critical Heritage Studies. While building local and national support

for the continuation of this tradition in the humanities is important, such efforts must also figure in the workload of employees. Outreach activities should be internally documented, made externally visible, and be rewarded. “Outreach” should be defined broadly to include dissemination of new knowledge to active teachers through focussed courses or thematic days.

C2. Relevance and impact on society

Strengths

- The faculty enjoys a strong position in this area. Many staff members have developed local, national and international networks and research collaborations with a variety of external stakeholders.

Weaknesses

- This strength does not seem to be integrated into the faculty’s reward system, presumably because the impact of outreach in the humanities is difficult to measure in terms of practical applications. But difficulty is not the same thing as impossibility. The faculty self-evaluation states the need to “revise the meaning of impact”. The panel agrees.

Recommendations

- It is in the faculty’s own interest to address, in an articulate, active and innovative way, the importance of “samverkan” and the value of the staff members’ eminence in this area. In short, the faculty is encouraged to find ways of accounting for the value of the work being done without relying solely on quantitative measures. A first step might be to gather a number of good examples of outreach that have brought attention to the faculty’s research outside of UGOT.

C3. Research-teaching linkages

C3.1 Undergraduate and master’s education

Strengths

- That UGOT is so focussed on education is a strength insofar as research has an immediate impact on society through teaching at all levels.

Weaknesses

- At the same time, teaching threatens to devour working hours, which must be seen as a weakness if teachers have no time to maintain or broaden their expertise or improve upon their teaching. This is a general problem for the humanities, but seems to be particularly pronounced at UGOT.
- Similarly, diminished student enrolment is a serious threat to the humanities and it is difficult to see how increased focus on publications, often of a technical nature, in international subject-specific outlets, aids student recruitment. This potential dilemma between the incentivising structures at work and the articulation of one of the core challenges of the faculty should be discussed both at the departmental and faculty levels until some sort of *modus vivendi* and plan of action can be reached.

Recommendations

- The policy that *all teachers shall have research experience*, not only as a prior achievement (in the form of a PhD), but *also in their current employment*, is commendable. For this reason, the panel recommends that the model for the allocation of research time be revised so that senior lecturers have more than 10%. In addition, the faculty might consider how they can ensure that teaching faculty have access to a period of research, such as a term of sabbatical. The faculty should also discuss how research results can best be disseminated.

C3.2 Doctoral education

Weaknesses

- Major weaknesses at the doctoral level appear to be due to structures arising out of the current financial model at UGOT. The main problem is the lack of funding for PhD students in many subjects. Insofar as postdoctoral programmes are dependent on external funding, small disciplines run the risk of losing their accreditation or simply evaporating when senior staff retire. It should be the responsibility of the faculty to play an active role in deciding which disciplines and areas of research and teaching are vital to the humanities and which are not, and not simply allow present economic conditions to determine the future course of research and scholarship. This is a system failure that needs to be adjusted.
- It is also worrying that many departments' PhD programmes consist largely of independent studies ("*läskurser*"). This is not a satisfactory state of affairs, as it deprives graduate students of a solid academic and collegial research environment.

Recommendations

- Earmarked allocations to safeguard PhD programmes should be part of the financial planning of UGOT both centrally and at the faculty level. To expect the humanities to survive through external funding is not realistic; to expect them to thrive under such conditions is even less so.
- The faculty should consider working out a plan for enhancing the "employability" of PhDs in the humanities outside of the academy, and for mobility within it. Such plans might include courses in popular science writing, research administration etc, but they should not detract from the disciplinary substance of the PhD programme.
- The plans for a framework for shared faculty-level courses may be a viable solution to both the problem of small and unstructured PhD programmes at the departments, and to the problem of employability, if it is well devised. The faculty is encouraged to seek examples of similar attempts at comparable universities that seem to have accomplished their aims.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Recommendations

- The decision to terminate two of the three networks and centres initiated in 2015 (Medical Humanities and Environmental Humanities) in order to concentrate on the Centre for Digital Humanities is not questioned; nonetheless, regret has been expressed at the departmental level that a great deal of time and effort was lost or made invisible in that process. The faculty should have a policy for securing the continuation of achieved competences and invested work, if a similar termination of other short-term initiatives should become necessary.

D2. Publication strategy

Recommendations

- The faculty takes a wise approach to publishing research insofar that it sees value in working in both English and Swedish, and in writing journal articles as well as monographs. Such a strategy is not only beneficial to the societal impact of the faculty, but also contributes to safeguarding the use of Swedish as an academic language and preventing domain loss. Yet at the department level, where the same approach is taken, one hears the opposite view, i.e. that the allocation system of the Faculty of Arts tends to reward publication in international journals, which makes it difficult to support the publication of books and articles in Swedish. This issue should be resolved, and the resolution should be clearly communicated and implemented at the faculty level (See also A2).
- To some extent, the issue may be linked to the direct import of the “Norwegian list” for evaluating publications and their value and/or impact. The panel does not see why UGOT has not adapted the Norwegian list to support publication in Swedish. That foreign languages other than English are mentioned as important publication languages in the future is to be commended.
- The panel recommends that the faculty continue to reward publications both in international channels, and in national ones in Swedish. The Norwegian system should be fine-tuned to the needs of UGOT, in order to balance international and national publications, as well as to the various needs of the different disciplines. This could be done as a UGOT system that integrates the most relevant features of the Danish version of the Norwegian system and the European systems used elsewhere. In any event, the mechanisms should be made better known throughout the faculty.
- While several panellists think that bibliometrics primarily measure productivity, others stress that in many areas in medicine and the natural and social sciences, but increasingly even in certain humanist disciplines, Journal Impact Factor and citations are the relevant bibliometric indices; thus, while bibliometrics do quantify output, they do so in terms of evaluation rather than productivity. Nevertheless, the panel as a whole agrees that bibliometrics cannot measure quality as such in the humanities; in particular, research falling outside

of the mainstream and its publication channels is disfavoured, which means that reliance on bibliometric measures can have a homogenising effect on the kind of research encouraged and produced.

- The faculty has taken an active part in the *Kriterium*-initiative, in which UGOT has played a leading role. *Kriterium* provides a structure for peer-review and open access for publications in both Swedish and English, and is seen by many as a model for how the humanities can take a proactive rather than merely reactive role in response to the challenges of digitalisation, bibliometrics, etc. But the faculty should also have a policy regarding open access in general, ideally one based on national or international alliances with other universities, especially given the new requirements of the research councils.

D3. Facilities and research infrastructure

Recommendations

- It is not clear to the panel (and apparently not even to some key staff members) where the policy for data management at the faculty is drawn up. This matter must be clarified. Perhaps a faculty-level infrastructure council should be formed.
- Even though the new master's programme in Digital Humanities at the Department of Literature, History of Ideas, and Religion is expected to build a bridge between the department and the Centre for Digital Humanities, we recommend that further efforts are made to integrate research at the department and the centre, where it is relevant, and thereby secure the continuation of the centre.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Recommendations

- In many humanist disciplines (literature, art history, gender studies) there is an increasing dominance of female students, indicating a risk of a substantial gender imbalance within the faculty over time in the recruitment of doctoral students and, eventually, faculty. Current approaches to gender equality might need to be reconsidered in light of new conditions in the not so distant future. We may also add that equal opportunity is not strictly a question of gender equality. It goes without saying that also other forms of discrimination and/or harassment, not mentioned in the RED19 form (against handicapped/disabled, non-native ethnic groups, sexual minorities, etc.), have to be taken into account and addressed.

D4.2 Internationalisation

Recommendations

- The allocation of SEK 500,000 per year to each department for bringing in international guest researchers is a good instrument, but perhaps a bit extravagant in the context of strained finances. The money could be used for other

purposes – e.g. for supplementing PhD stipends or stipends for people wanting to spend concentrated time for research abroad (see above and C3.2).

- The climate issue must be considered, and the benefits of internationalisation should be weighed against the environmental consequences of increased long-haul travel.

SECTION E – SUPPORT

E1. Internal research support

The panel has not separately addressed this question.

E2. University-wide support

Recommendations

- The panel is pleased to note that the faculty is quite satisfied with the support it receives from the university-wide office for research applications to the European Research Council. This form of support could be used as a model for supplementary support at the faculty level for cross- or single-discipline applications to the Swedish Research Council (VR) and the Swedish Foundation for Humanities and Social Sciences (RJ), since such applications cannot be supported without in-depth knowledge of the humanities nor financed by the departments themselves.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

It is not within the remit of the faculty to make decisions regarding the size of research groups. Thus, the faculty cannot and indeed should not take it upon itself to reduce the number of highly specialised, ‘under-staffed’ groups. Research groups should not be judged merely by the number of their members, but also by their ability to engage in fruitful collaboration with like-minded scholars abroad and at other Swedish universities.

CONCLUDING RECOMMENDATIONS

We recapitulate below a number of the panel's main recommendations.

Recruitment: The faculty should have unambiguous guidelines for the departments regarding mid- or long-term (5–10 years) recruitment plans. The extent to which departments may recruit new members of staff without these appointments being anchored in such a plan must be discussed. Similarly, the faculty might consider to what extent it should be involved in the recruitment process at the departmental level. The outcome of these considerations should be made explicit in a faculty strategy document, which ought also to include gender equality goals and plans. Of particular interest is a plan for the recruitment of promising early-career researchers, whether they are identified at UGOT itself or through applications in open calls. This will require routines for helping these researchers adjust and be integrated in the university. Such routines are best anchored in the faculty level. The faculty needs a clear and consistent policy for the balance between personal promotions and open calls. The panel is in agreement in recommending that open calls be used significantly more than they are. At the same time, it should be kept in mind that it will be difficult to attract senior lecturers if the right to promotion is abolished without revising the formula for the allocation of research time. Should the system of personal promotion be restricted to favour open calls, the faculty should make sure to follow up on the risk of gender bias in the recruitment process, as men tend to be more successful than women in open calls.

Funding: The faculty might consider earmarking funding for successful individuals and groups for proposals on how to bring in other colleagues from the faculty whose areas of competence are germane. Another suggestion would be to earmark the extra funding for “master classes” for advanced level and PhD students in the research area in question, out of which new research initiatives could emerge. This would also contribute to strengthening the link between research and teaching. The faculty could also consider the possibility of co-funding mainly externally funded PhD students (since funding agencies are often unwilling to finance the year of course work), as a strategy to bring more PhD students into the system.

To the extent that money is reserved, whether at the level of the UGOT central administration or at the faculties, it is important that the use of these funds and the reasons for the investments made are transparent, i.e. that they are not perceived of as ad hoc, but understood as an organic part of an overall vision. It is thus crucial that the budget model be accessible and unambiguous to the staff. They need to know what is being prioritised and to what ends, where resources are going and when. Ensuring this understanding is key to the legitimacy of collegial bodies.

Outreach, societal impact and collaboration: UGOT's impressive tradition of public outreach has been strengthened by some of the strategic initiatives taken by the faculty, notably, the Centre for Critical Heritage Studies. While building local and national support for the continuation of this tradition in the humanities is important, such efforts must also figure in the workload of the employees.

Outreach activities should be internally documented, made externally visible, and be rewarded. “Outreach” should be defined broadly. It is in the faculty’s own interest to address, in an articulate, active and innovative way, the importance of “*samverkan*” and the value of the staff members’ eminence in this area. The faculty is encouraged to find ways of accounting for the value of the work being done without relying solely on quantitative measures. A first step might be to gather a number of good examples of outreach that have brought attention to the faculty’s research outside of UGOT. The panel suggest that the faculty take a closer look at the reward system in its entirety, and seek a faculty-wide system for crediting substantial contributions to public discourse and interchange over disciplines, professions and specialisations.

Research-Teaching linkages: the panel recommends that the model for the allocation of research time be revised so that senior lecturers have more than 10%. In addition, the faculty might consider how they can ensure that teaching faculty have access to a period of research, such as a term of sabbatical. The faculty should work together with the departments to devise guidelines that are flexible enough to allow for variation between departments depending on “local” conditions, while sufficiently coherent so as to constitute some kind of transparent, predictable and effective strategy.

Doctoral programmes: Earmarked allocations to safeguard PhD programmes should be part of the financial planning of UGOT both centrally and at the faculty level. To expect the humanities to survive through external funding is not realistic; to expect them to thrive under such conditions is even less so.

The faculty should consider working out a plan for enhancing the “employability” of PhDs in the humanities outside of the academy, and for mobility within it. Such plans might include courses in popular science writing, research administration etc, but they should not detract from the disciplinary substance of the PhD programme.

Publication strategy: The panel recommends that the faculty continue to reward publications both in international channels and in national ones in Swedish. The Norwegian system should be fine-tuned to the needs of UGOT in order to balance international and national publications, as well as to the various needs of the different disciplines. This could be done as a UGOT system that integrates the most relevant features of the Danish version of the Norwegian system and the European systems used elsewhere. In any event, the mechanisms should be made better known throughout the faculty.

DEPARTMENT OF CULTURAL SCIENCES

62	Introductory Remarks
63	Section A – Background and Research Standing
63	A1. Background
64	A2. Research standing
65	Section B – Leadership
65	B1. Leadership
68	B2. Recruitment
68	B3. Career structure
70	B4. Funding
71	B5. Feedback and evaluation
71	Section C – Complete Academic Environment
71	C1. Collaboration
73	C2. Relevance and impact on society
75	C3. Research-teaching linkages
78	Section D – Academic Culture
78	D1. Academic culture
79	D2. Publication
81	D3. Facilities and research infrastructure
82	D4. Transverse perspectives
84	Section E – Support
84	E1. Internal research support
84	E2. Faculty and University-wide support
85	Section F – Other Matters
85	F1. RED10 evaluation
85	F2. Other matters
85	Concluding Recommendations

INTRODUCTORY REMARKS

The panel included three members: Annelie Bränström-Öhman (chair), Professor in Literary Studies and Gender Studies at Umeå University; Johannes Brusila, Professor in Musicology at Åbo Akademi in Turku, Finland; and Bjørn Sørrensen, Professor Emeritus in Film Studies at the Norwegian University of Science and Technology in Trondheim, Norge.

Our work procedure consisted of the following steps: a sketch of the report was written in collaboration before our site visit in Gothenburg. During the site visit we proceeded with the report, adding reflection and analysis based on additional information that was presented in interviews at the Department of Cultural Sciences. We consider the meetings and interviews a crucial part of our work, since the self-evaluation from the department, for given reasons, lacked documentation of these lived experiences from the everyday life of different work positions within the organisation.

Another factor of great value for our work was the differing academic backgrounds of the panel members, including experiences from different disciplinary fields but also from universities in three Nordic countries. This allowed us to start out with a general set of questions: *is the current finance model for research and research education (focused mainly on measurable and quantitative results), the best one? Is the implementation of this system self-evident at department level as well as faculty level? Are there alternatives?* These questions permeate our reflections throughout this report, in articulate or implicit ways.

It has also been in our task as panellists to reflect upon possible differences and progressions from the results of the RED10 evaluation, where the department received the assessment “poor” in two areas: *organisational capacity* and *future plans*. The RED19 evaluation, however, has a different design and did not demand a similar final rating. Therefore, we have integrated our views on this in our observations, reflections and recommendations under each relevant section in the template.

The report was finalised in collaboration with all panel members after the site visit in Gothenburg.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department is a relatively new constellation consisting of seven disciplines within the main strands of culture aesthetics and gender. With the exception of children and youth culture, all disciplines offer education on all levels, including PhD education. These are: art history and visual studies, cultural studies, ethnology, film studies, gender studies, and musicology.

The department, thus, consists of a wide compilation of disciplines with various academic contacts in fields inside and outside the department, as well as with external stakeholders (mainly in the area of culture). In practice, the disciplines are organised in a complex structure, consisting of candidate programmes and master's programmes, but also freestanding courses, various disciplinary entities and master's or "magister" programmes. This structure appears to be a result of historical development rather than a planned strategy and it remains to be seen whether it will be an optimal structure in the future.

The variety of disciplines offers possibilities for innovative approaches, but also challenges because of the heterogeneity of the disciplines. At best, the disciplines have found ways to cooperate successfully, as in the annual "Research Day", which brings together scholars to present and discuss current work as well to get the chance to present their research for non-academics. On the other hand, the higher seminar, for example, has not yet managed to continuously engage scholars, seemingly because of their disparate interests.

When the current department was formed in 2009, the disciplines were roughly of equal size and this appears to have been one of the reasons for the particular constellation. Other reasons mentioned were practical and economic and not primarily due to disciplinary affinities. There was a core consisting of three disciplines (musicology, film studies and cultural studies) which had already started to collaborate, but the other four disciplines did not have any comparable affiliations with each other. However, the disciplines have developed in different ways and now, for example, gender studies seems to be much larger and ethnology smaller than the rest. The disciplines seem to be fairly content with the current structure as the bigger disciplines have been able to develop freely, while the departmental organisation has offered a possibility for the smallest to continue with their activities. So far, the department has, for example, managed to prevent the negative effects of the "Matthew effect", which is embedded in the current finance structure, where as much as 53% of the faculty allocation depends on publications (according to the measurements of *The Norwegian Register for Scientific Journals, Series and Publishers*, referred to as the "Norwegian List"), external funding and PhD exams. Instead of splitting this added allocation between the most successful disciplines and/or individual researchers/research groups, the department shares it evenly for

joint projects or strategic investments such as employment of doctoral students. Still, in fluctuating situations, we may predict that this model might change or at least be questioned. With more decisive and even daring visions for future research strategies and goals this, in many ways, exemplary collective accountability may develop to a solid basis for the department's research environment.

Recommendations

In order to meet these and other future challenges in a successful way, we recommend the department to intensify its internal discussions on premises, aspirations, strengths, weaknesses and formulate a strategy of its own. From our perspective, the department is more than ready to meet these challenges, even though it is not yet articulate. It has already taken crucial steps in this direction. Our recommendation is that the department should be more pro-active in planning its future so that it can strive to foresee structural vulnerabilities and counter the negative effects of, for example, departmental or disciplinary funding cuts, or situations where single successful researchers leave the department etc.

A2. Research standing

Strengths

In the self-evaluation report, the department announces that teaching has previously been considered the main activity of the department, but adds that this has been rectified as a result of an action plan for 2017–19. This includes a better scheduling of the work task plan, promoting collaboration, increasing the amount of external funding and internationalisation, and offering mentor support. The strategy has been successful and now the department hosts several externally-funded research projects (four major projects, two in gender studies, one in musicology and one in cultural studies). Further, it scores well in publication statistics, both of which are important criteria for the faculty allocation. The current standing of the department's research is clearly above average.

It is obvious that foremost gender studies has managed to position itself as a central driving force in the department's research development, as well as providing the department with international expertise in the field. One reason for this might be that gender studies is in itself an interdisciplinary discipline (or "post-discipline", as some choose to label it). In other words, they are already used to collaborating within and between different theoretical traditions.

Regarding publications, it is also notable that – in addition to the publications registered under gender studies – a considerable number of publications in the other disciplines are also clearly informed by theories and methodologies pertaining to gender studies. Furthermore, external financing has been secured for projects in musicology and cultural studies.

In the development of a functioning infrastructure the department has prioritised support for research projects, application procedures, and publication processes

without steering or being involved in the formation of the research projects. As a result, several different forms of collaboration have been born (on the educational level through the creation of interdisciplinary candidate programmes), of which some have been active and found formalised structures, whereas others seem to exist in very loose, and almost passive forms (an example of the latter is the research groups mentioned in the self-evaluation, which are not the same as the groups formed by the externally financed projects). As already mentioned, the annual “Research Day” also serves as an important meeting place for constituting future collaboration.

Recommendations

- An active support without too much steering clearly has advantages as it offers individuals the freedom to conduct research autonomously.
- An improved and more clearly formulated strategy for the future might support the development of research at the department in general. This could involve discussions on how to support the various disciplines in their aims so that the cooperative potential of the disciplines could be maximised without losing the subject-specific areas of strength. It could also offer ways of countering the Matthew effect, as mentioned above (section A1).
- On a more general level, a thorough discussion on the current steering mechanisms and national policies could lead to proactive departmental actions and strategies.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- First, we must mention a few things about the general postulations: in accordance with the “line structure” organisational model for all levels at the University of Gothenburg (UGOT), as well as in many other Swedish universities, the leadership of the department is largely delegated to the Head of Department (*prefekt*). This form of leadership, referred to as “*prefektstyre*”, has its advantages as well as its obvious downsides and has been criticised for being in conflict with the tradition of “collegiality” and for promoting an enforcement and reconstruction of hierarchical power structures within academia.
- The particular organisational model chosen for this department can be said to function both as a safeguard and means of fending off the consequences. On one hand, the managing board (*ledningsgruppen*) functions as an advisory board, even though the formal leadership is divided between the Head of Department and one Assistant Head of Department for each main area (research, education, doctoral studies) alongside a Deputy Head of Department and an Administrative Manager. Each member of the board is handpicked by the

Head of Department. On the other hand, there seems to be a good practice for delegation within the managing board. For instance, the Assistant Head of Department for Research works 25% with questions related to research. This includes overseeing the research done at the department and allocating smaller resources for research. The department also has a department council (*institutionsråd*) with elected members representing the different employee groups and disciplines at the department. The function of this body is, however, also understood to be mainly advisory in relation to the Head of Department, who has the final say in most decisions. On the upside of the current model for leadership is also the fact that the managing board also indirectly forms a multidisciplinary group, which may be one of the explanations – or at least incitements – for their notable ability to embrace collective solutions, as mentioned above (A1). Another example is the decision to share the responsibilities of Deputy Chair of Research between two persons from two different disciplines, which marks an articulate ambition of encouraging responsibility for research activities among the members of the staff.

- In its daily practice, the current system mostly seems to work to general satisfaction, which may be seen as a good result of the negotiation between the Head of Department and the various parties involved.

Weaknesses

- The downside of this organisational model is that the present leadership at times tends to stand back and delegate responsibility for research education and research activities to the separate disciplines (shown for instance in the low grade of participation in the higher seminar as well as in the PhD seminars). On the other hand, it is obvious that new organisations need a lot of time to find working structures. It became clear during our site visit that the decision-making processes were not fully known, or understood, among all members of staff. Some persons stated that they felt it was a relief to be able to avoid the labour of administrative tasks. The former collegial leadership was also described as not necessarily being very democratic as it could also include unwanted power structures. This may, to some extent, be related to the fact that the procedure for recruitment for this board is not fully transparent.
- In the interviews, the concentration of power to the Head of Department was described as both an understandable (due to the “line structure”) and a risky structural feature. Most scholars emphasised collegiality as a guarantee for quality and commitment, and explained that it can be harder to create transparent structures and disciplinary equality within the current system of leadership. Some can also feel that they have a possibility to influence on lower levels, for example, when it comes to individual questions regarding teaching and research, but harder to influence more substantial strategic questions on a higher level. This can lead to frustration and passivity.

Recommendations

- We recommend intensifying the work on articulating concrete aims for structures/work methods and routines that increase transparency and engagement,

including a clearer vision of future research activities formulated by the leadership.

- The department is currently discussing restructuring the organisational model. We recommend including an aim directed towards strategies for minimising the risks that the current concentrated power structure can lead to, such as lack of transparency.

B1.2 Faculty/University level leadership

Strengths

- In accordance with UGOT's general decentralisation strategy (*Göteborgs universitet förnyas*), implemented in 2013, the faculty has promoted structural means to allow the departments a relatively advanced level of independency in making strategic plans for prioritising between different aims, research projects, employment of doctoral students etc.

Weaknesses

- One of the most problematic consequences of the decentralisation and delegation of decisions for research strategies etc. from university and faculty level is a highly increased administrative workload on the departmental level. The change in funding system to block grants, including the abolition of earmarked resources for recruiting doctoral students, have already resulted in deeply disturbing weaknesses in the quality of research education.
- The faculty's means of measuring research quality, mainly in terms of productivity and publication achievements in accordance with the Norwegian list (= base for 53% of the total faculty allocation), is highly problematic. Since this is a very distinct and hands-on steering-model we are surprised to see that the faculty states that they refrain from strategic decisions. We can only assent to the question raised in the faculty's self-evaluation, when they reflect on whether they *"have adhered too strictly to the decentralising and/or therefore not found the best way of implementing strategic work within the new organisational model"*.
- During the department visit we got the impression that a common feeling among the staff we met was that the possibilities for influencing structural, strategic and economic matters were small because most decisions were made on a higher level. This sense of a lack of proper influence has also resulted in a decreased interest for participating actively in administrative tasks and leadership.

Recommendations

- Initiate and renew strategic discussions on university and faculty levels in regard for how to secure research quality and continuous recruitment of new doctoral students. The latter is currently a red flag-area, in acute need of revision and strengthening – if UGOT wants to continue to meet national requirements and goals for high quality in research education.
- The funding systems for the allocation of faculty block grants should be scrutinised and revised, with disciplinary differences in research and publication

traditions taken into account. Is the Norwegian list the most effective and just measurement of research quality? Are some disciplinary areas/research profiles favoured on behalf of others? Are there other forms for measuring quality in, for instance, the field of collaboration?

B2. Recruitment

Strengths

- As a rule, the majority of the staff has been promoted to their current position (without recruitment procedures). However, the possibility of promotion is also seen as a positive thing as it offers security and opportunities for long term planning. The recruitment of PhD students, when it was done last time, also increased the amount of staff recruited from outside the department, which has evened out the balance between internal and external recruitment.

Weaknesses

- The internal promotion policy mentioned above can also increase the risk of stagnation and has been discussed, e.g. based on the RED10 report. The recruitment of new staff has been rather small as a result of the department's large teaching staff in combination with a decrease in the number of students. Thus, although research has been emphasised in job advertisements for the most recent recruitments, the effects have been relatively small.
- A general problem related to recruitment is the lack of funds for PhD students (see below). This also relates to the problem of not being able to recruit postdocs and only offering a two year recruitment for them, which is a short period for e.g. somebody from abroad.

Recommendations

- We recommend the department make a strategy for future recruitment in order to strive towards a better balance between internal promotion and external recruitment.

B3. Career structure

Strengths

- It is possible to be promoted without recruitment procedures (as noted in B2). The department also has a mentor programme, which offers advice and feedback for those who want to apply to become docent or professor. It may be noted that it is still a right for employees at UGOT to apply for promotion to professor (in many Swedish universities this is now only a "possibility"). The research time granted for every professor (35%) is also relatively generous, by national comparison. In addition, there is regulated "competence development time" (currently 10% for professors). All teaching staff has the possibility of developing their competences as a part of their job, which should support career development. The possibility of being promoted is a positive thing in general and creates stability and a sense of security in the workplace for those already

employed. In other words: the department's policy is conducive for researchers wishing to apply for more senior positions.

- In terms of gender equality, we noted that there is a 50/50 balance of women and men in the professor's group and, moreover, the department has strived – with success – to adjust the gender salary gap.

Weaknesses

- The downside of the department's choice to prioritise internal promotion strategies is that it may turn out to be counterproductive when it comes to recruitment of new researchers and teachers. Only one of the eight professors at the department has been employed as a result of external recruitment, the other seven are "homegrown". But the sense of belonging that this creates is conditional, since it does not include postdocs and other limited employments.
- Another consequence is that there seems to be no established incentive to encourage international mobility. The initiatives for international collaboration are more or less given over to the major research projects and their participants, and is indeed conducted with good results, such as visiting scholarships and inviting several international guest researchers.
- For lecturers and senior lecturers, the resources for research are overall meagre. As research is highly dependent on external funds, many choose to use the competence development share of their job (10–20%) for own research instead of using it to increase their professional know-how in other fields (which is originally the purpose of competence development). Due to the current finance system for education (*studentpeng*), the decreasing number of students also creates the unfortunate effect that it is not self-evident that the disciplines can hire teaching staff to fill-in for those who have received research funding, as the department already has a large teaching staff in relation to the number of students. The work pressure on the teaching staff is therefore at risk of becoming disproportionately heavy.
- A "major weakness", as the department states in their self-evaluation, is also the lack of continuity in funding for PhD education. There are no earmarked resources, only the block grant from the faculty. In reality this means that the department must weigh the recruitment of new doctoral students against the needs of senior staff members, such as competence development and research time for professors.
- Most of these weaknesses are results of structural prerequisites and system failures which are out of the department's reach to change. Within the current system there is no realistic way to secure funding for PhD education. The opportunities to receive funding through external research projects are also very weak, since most research councils are very restrictive towards allowing PhD funding.

Recommendations

- Improve incentives to encourage international mobility.
- Discuss possibilities for teachers to accumulate competence development time in order to stimulate career development.

B4. Funding

Strengths

- The department has been successful in its attempts to increase external funding, nurture successful research projects, and publish in esteemed fora. As a rule, the income generated by the successful research has benefited the whole department as it has been incorporated in to the departmental budget. This has countered the negative consequences of the ‘Matthew effect’. On a more general level, research funding can still generate an imbalance in the relationships between disciplines.
- Notably, since 2010 the department has received external funding for several major projects, including a prestigious Wallenberg Academy Fellowship.
- The faculty’s emphasis on bibliometric statistics (particularly based on the ‘Norwegian list’), is regarded among both the managing group and the individual researchers at the department as having both possibilities and risks. External funding and measurement procedures can offer means for supporting groundbreaking high-class research, but from the perspective of older, smaller disciplines in the humanities it can also direct the views on what is considered to be valuable research and neglect the amount of small-scale research being done by the staff as a part of their daily work. During the departmental visit, a balance between the two was expressed to be ideal. By supporting both the possibility of including research in the basic working duties of staff and successful externally-funded projects, the variety and extent of research could be preserved.

Weaknesses

- The department shares, with similar departments in the humanities, the problem of attracting external funding for research. As underlined above (B3), there are also major problems with securing means for PhD funding and, by extension, securing the survival of research education in all disciplines.
- The performance-related allocation from the faculty is not balanced in relation to the percentage allocated to the share of research in different positions. As already mentioned, the disciplines also have possibilities to arrange their teaching if somebody in the staff focuses on research for a period of time.
- In this context, the reliance on funding based on bibliometric data defined by the standards of the Norwegian Publication Indicator (NPI) becomes apparent. This is, however, a problem dependent on solutions at a higher institutional level.

Recommendations

- There is no “quick fix” for the problems connected to external funding in the humanities, other than to encourage new interdisciplinary collaborations, as well as securing research time for staff members and elaborate strategic support for writing grant applications, in various forms.

B5. Feedback and evaluation

Strengths

- The department focuses largely on publications and the yearly bibliometric report when e.g. the managing board discusses the annual production and individual researchers receive feedback on their performance.
- The ‘Norwegian list’ has a crucial position when the department evaluates its success. This is a logical result of the general evaluation procedures on faculty, university and national levels, as well as among external funders. A general concern among many smaller disciplines in humanities is that this tool of measurement does not fit their disciplinary tradition and influences the direction of research in an unwanted direction. It is obvious that the department alone cannot change the development, but it could make a strategy for diminishing the negative effects of the process on university level, and for creating a Swedish national list that would at least be easier to edit and adjust to fit the Swedish context.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Being consistent with the interdisciplinary character of the department, it has been an active part in different constellations of research collaboration within the University of Gothenburg. The department has a relatively strong network of international collaborations, mostly through the endeavour of individual researchers. The emphasis, however, is on collaboration between other departments or faculties at UGOT, as well as other Swedish and Nordic universities. Obviously, there are natural connections between the aesthetic disciplines (foremost musicology, art history and visual studies) and their artistic counterparts at the Faculty of Fine, Applied and Performing Arts (Valand Academy), which has resulted in several collaborations. Several researchers are actively engaged in the new Centre for Digital Humanities at UGOT. Among the many examples of interdisciplinary collaborations mentioned in the department’s self-evaluation are the network for Nordic Scenography and the Centre for Critical Heritage Studies (CCHS), which both hold a broader scope and international connection, as well as the network for Youth and Popular Culture (with collaboration between film studies scholars and researchers from comparative literature, educational sciences). Several staff members are also engaged in international research networks as well in editorial boards for national and international journals.
- A particularly good example of an innovative form of research collaboration is the recent establishment of the ‘GPS400’ digital collaborative platform,

in which the department has been actively involved in cooperation with the Department of Applied Information Technology and the Department of Journalism, Media and Communication. The centre is intended to be a platform for both education and research, and in addition provide the means for developing infrastructure within the field of *'samverkan'* (see below, C1.2).

- The question of financial support is of foremost importance to all forms of research collaboration. According to the interviews, the faculty previously offered financial support for collaboration, but these funds have subsequently been cut – or included in the block grants. Through strategic planning the department has still been able to offer financial support if the aim is deemed important. For example, PhD students are offered SEK 30,000/year for travels to conferences, archives etc.

Weaknesses

- In its self-evaluation, the department states that it does not provide any specific incentives to promote collaborations, besides travel grants for staff members. This seems a surprisingly passive approach, given the fact that this is an area where the department is strong and has a good potential of becoming much stronger. Leaning on initiatives from individual researchers is a fragile strategy, even in a short-term perspective.
- Despite the diversity of disciplines within the department, collaboration seems to be stronger at the university and national levels than at the departmental level. Thus, the varying characters and potentials of the different disciplines can have a large impact on how well they are integrated in networks. Although some of the disciplines, such as gender and cultural studies, have natural linkages to e.g. social sciences, concerns were expressed during the interviews that the potential of these connections was not fully developed due to the structures at the university level.

Recommendations

- The interdisciplinary connections are expected to be strengthened when the department moves to new premises (the rebuilt *Humanisten* centre), where most humanist disciplines are to be located. The department could support these processes by planning a new and pro-active strategy for cooperation and collaboration, which could also include the national and international levels. This would minimise the risks of relying solely on individual researchers and their personal contacts, which can collapse if the persons in question are no longer in their current positions. A separate concern is the development of national PhD cooperation (see C3.2)

C1.2 Collaboration with external stakeholders

Strengths

- The department's self-evaluation foregrounds collaboration with external stakeholders as one of its strengths. And rightly so. Many of the department's ongoing, as well as previous, research projects include this form of collaboration

as a vital component. Over the years this has resulted in development of innovative and functioning collaborations with museums and archival institutions and various other institutions and persons within the public sector. In some cases, the research projects have also started to include reference groups including civil servants and planners in their organisational structure. The above mentioned (C1.1). GPS400 centre is an illustrative example of this.

- A new system for including collaboration in the general funding system is under discussion at UGOT and is to be launched later this year – it is an important signal that one of the Deputy Vice-Chancellors has a special responsibility for this area.

Weaknesses

- Still, it is a general problem expressed by the members of the department that there is currently no reward system for measuring collaboration with external stakeholders within the university. Thus, collaboration is not assessed when the department plans its future activities, nor when projects have finished. This lack is largely ascribed to the fact that developing a functioning system for measuring collaboration is deemed to be hard. This is, of course, a structural change that must be implemented at faculty and university levels, but in regard of their vast experience within this field the department should be able to be more pro-active than they are today and organise internal discussions/seminars on how they want to proceed and promote future collaborations.

Recommendations

- The department holds a solid experience from successful collaborations with a broad variety of external stakeholders and should be regarded as a key actor in the ongoing discussions at the faculty as well as university level about the lack of a proper reward system for '*samverkan*'. Many of the staff members could give important contributions by sharing their experiences, as well as by underlining the importance of not limiting credits and other forms of reward only to results of research that can be counted and measured, such as publications.
- The department itself could also be more pro-active and, for instance, improve its own evaluation of experiences in this area as well as initiate internal discussions on how it wants to promote the inclusion of collaboration in future projects. It is crucial for the department to plan a strategy – and a vision! – of its own for this field, in order to secure their strong position.
- It could also be important for the department to plan how to improve and systematically develop collaboration in such ways that it would help increase external funding and social impact.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- Social impact is an integrated part of the practices of many of the department's disciplines and research groups. Finding suitable arenas for research commu-

nication, and strengthening collaboration with civic society by taking part in public discourse, are also identified as aims in the department's action plan.

Weaknesses

- There appears to be a tension between the various understandings of social impact and the consequential aims formulated in strategic documents. The emphasis on revenues from other sectors of society are more frequently emphasised in, for example, national university comparisons. However, they do not hold the same status in the department's self-evaluation, where general collaboration with various fields of society are stressed, and finding external funding partners outside academia is considered hard due to the tradition and nature of the disciplines. Generally, it would have been useful to have more concrete examples of this.
- Currently, our impression is that the role of social impact in the daily activities of the staff largely depends on the interests of the person in question. The fact that there is no structure for measuring social impact is an obstacle for developing this area, just as the lack of structures for assessing how meritorious working with social impact is when, for example, employing staff and negotiating salaries. Attempts to introduce such systems have never been successful, according to the staff.

Recommendations

- The department would benefit from a strategy based on its views on how the disciplines of the department approach impact, which would then be carried out at the centre for collaboration, which the university is currently forming.
- Simultaneously, new methods for assessing and supporting social impact and how these aspects should be notified when creating work plans, employing staff and setting criteria for salaries could be developed.

C2.2 Research relevance and impact on society

Strengths

- As already mentioned (C1.2), the department has a long history of collaborating with various parties in order to present its research findings. In the interviews many members of staff, including doctoral students, highlighted the importance of the department's annual "Research Day" as a site not only for presentation and information about ongoing research, but also for sharing experiences and participating in interdisciplinary dialogue. Of high impact value is the fact that the "Research Day" is also open for public participation. In addition to this, many staff members often give public lectures, participate in panels and debates, and cooperate as experts in media. We also want to mention that alongside this, several staff members are engaged in research collaborations resulting, for instance, in art historians participating as experts in research-based art and design exhibitions, and musicologists developing new forms for musical learning (the El Sistema project) as well as constructing innovative prototypes for solving problems in "urban soundscapes".

- Furthermore, there are several good examples of researchers contributing to public authorities and healthcare providers, such as Migrationsverket as well as LGBTB-related activities in Region Västra Götaland.

Weaknesses

- Due to the general research traditions of the disciplines included in the department, e.g. concrete products, plans of operations or strategic documents are not a common aim or end result of research projects. At the same time the department's researchers are aware of the increasing societal expectations for integrating such aspects of cooperation in scholarly work. The department surely shares this lack of internal evaluation and "recycling" routines for the results of research projects with many other departments – as well as Swedish universities at large – but nevertheless, this clearly is an area for improvement.

Recommendations

- The department could pro-actively seek to form a strategy for meeting the expectations of society and funders by investigating its current strengths and weaknesses in the field and incorporating new approaches to the general planning of operations.
- Development of internal routines and work forms for discussing how experiences from research projects can be better taken care of and integrated in work plans – and visions! – as a means of securing sustainability in an area where the department is already strong, but in lack of "recycling" routines.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- In the interviews many of the staff members underlined the importance of the interdisciplinary collaborations that have been initiated since 2010, from within several disciplines, for new undergraduate and master's programmes. The master's programme Culture and Democracy serves as a good example of this. In turn a couple of these cross-disciplinary educational collaborations have resulted in new research projects. The integration of research in education therefore comes as a more or less natural result, since many researchers are also involved in teaching. Besides the programmes, there are also interesting examples of educational collaboration with external stakeholders, such as the collaboration with the National Regional Archives in Gothenburg, which will result in a number of workshops as well as a forthcoming interdisciplinary course with archives as a common denominator.
- It is also important, on a structural level, that the faculty emphasise the importance of including own research in the work plans of teaching staff. By doing this, it also ensures the possibility to incorporate research in teaching.

Weaknesses

- A structural problem is that external funding for research projects can lead to

situations where the department cannot afford to employ substitutes to take care of teaching for staff members who are conducting research (due to the “*studentpeng*”-based funding system).

- In regard to recruitment aspects, it is notable that only very few students who have received an MA degree from the department have been enrolled as PhD students at the department. It is obvious that receiving good applications from other universities and from abroad is a good sign, but if the current trend prevails it might be good to assess the MA studies from this perspective.

Recommendations

- Several structural features mentioned above, and the challenges they raise, need to be taken into consideration in future planning, in the form of pro-active strategy-thinking. Severe problems are not unlikely to occur if the current balance between research and teaching comes under threat and if the cuts in teaching that are caused by successful external funding persists.
- The structure of the department’s disciplines and programmes on BA and MA levels are currently rather complex and might become a problem if, for example, the general funding decreases or disciplines perform differently in the future. Considering future risks, it might be good to assess the various possible future scenarios from the perspective of their consequences for research.

C3.2 Doctoral education

Strengths

- One of the foremost challenges that the new Department of Cultural Studies had to face at its start in 2009 was to find forms for establishing a research environment, including high-quality doctoral education in six previously non-related disciplinary fields. Efforts have been made, all disciplines now have their own PhD seminars and there is an interdisciplinary joint higher seminar at the department, to which doctoral students are invited as well. In the interviews with doctoral students they stated that they were satisfied with most parts of their education, including supervision as well as material means (including a guaranteed shared part of office space and annual money for expenses). In 2017 the department employed one new doctoral student in each of the disciplines (with the exception of children and youth culture, which does not have PhD-level education). The intention was to implement this as a recruitment strategy, and offer new positions every second year. But due to the financial situation they will not be able to fulfil this ambition in 2019.

Weaknesses

- In 2012, the funding structure for doctoral education was radically changed at UGOT, when all faculties started providing resources in the form of block grants to the departments. In other words, there are currently no earmarked resources for PhD students, which means that decisions regarding new recruitments have to be made in concurrence with other needs and strategies at the departmental level. The departments depend on funding from externally-financed research

projects. However, this has proven to be quite hard, not the least for disciplines in the humanities, since most of the funds open for the humanities do not allow applications for employing doctoral students.

With a partial exception for gender studies, this constitutes a growing problem for all the disciplines in this department as well. Currently there are only 11 active doctoral students at the department (notably, only one in cultural studies). Taken altogether they might be considered as a critical mass, but in practice there are too few individuals in the separate disciplines to give basis for courses, seminars etc. There are some mutual / interdisciplinary courses at the faculty level, but the majority of demanded courses are taken in the form of independent studies (*läskurser*). The uneven recruitment makes it hard to make plans for improvements in course development and other strategic investments in the education. This is a serious lack in the research environment, which is mirrored in the low level of attendance (and consequently collegial responsibility) at the PhD seminars.

- In its self-evaluation, the department states that it regards the current organisation, funding and structural prerequisites for doctoral education as a “major weakness”. We can only agree. Doctoral education at the department is not approaching a critical situation, it is already in an alarming “red flag” situation. We consider it a high and foreseeable risk that some of the disciplines would not pass future evaluations by the Swedish Higher Education Authority (UKÄ) with an acceptable quality level. Particularly for smaller disciplines with only one doctoral student, it would be important for the students to receive discipline-specific support from, for example, national PhD networks or “PhD schools”.
- However, we want to underline that we see these weaknesses as a direct consequence of the block grant system. Most solutions are, in other words, resting on the structural level, out of reach for the department to change. What the department can – and should – affect is the internal infrastructure for research education, and make it a priority and visible goal in annual operational plans.

Recommendations

- We recommend the department to immediately strengthen their work on implementing a working internal infrastructure for research education and make it a priority and visible goal in annual operational plans.
- Ensure that the smaller disciplines can also form structures that on a national level secure sufficient support for the doctoral students (e.g. in the form of national discipline-specific PhD networks).

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Background: In this section of the self-evaluation, the department chose to put an emphasis on achievements rather than prerequisites for the making and “nurturing” of a good academic culture. Perhaps this can be regarded both as a result of the instructions of the template and the focus that in academia today is continuously set on results, on counting merits and points, rather than content work place conditions as an important part of creating new research ideas? Anyhow, the panel’s conclusions here are notably in debt to the additional information we received through the interviews during our site visit.

Strengths

- The highlighted examples in the department’s self-evaluation (e.g. the annual “Research Day” , seminars for encouraging research applications) shows that there is no lack of will-power and good ideas. Another area of improvement is the higher seminar where a lot of effort has been put towards finding forms for making the seminar the pounding heart it ought to be in the department’s academic culture. During the interviews, a seminar series on theoretical concepts from different disciplinary areas was mentioned as a good example of how the higher seminar could work. A slow progress in regard to participation was noted, even though the attendance rate was still a problem (not only at the higher seminar, but also at the application seminars). Some voices wanted to underline that a major concern might be to “facilitate but not force” collaboration, the joint seminar culture included.
- Also, we got the impression that there is a sense of principal loyalty among the staff of different categories (not least the doctoral students) to promote a deepened discussion on work forms for facilitating the creation of a good academic culture.
- An incentive for interdisciplinary exchange was the development of new interdisciplinary master’s programmes, which has been an important factor for successful collaboration in new research projects.

Weaknesses

- The lack of discussion on the principal questions in regard to what the criteria for a good academic culture might be stands in relation to the lack of visions for the research environment at the department. For instance: what are the implications of shifting from seven monodisciplinary unities to one multi-disciplinary department? What concepts of “academic culture” are carried within each discipline? What are the similarities – and the differences? What creates intellectual enthusiasm? Today it still seems like the whole is smaller than the separate parts – and that the interpretation of a good academic culture equals the quantitative measurements of academic success.
- The foremost example of this dilemma, is the gap between the strikingly ambitious programme for the higher seminar (including guest lecturers, thematic seminars and text seminars) and the low attendance. As previously mentioned

(C3.2), there are also severe problems with finding forms for inclusion in a vivid research environment (occasionally unacceptably low attendance from senior researchers at PhD seminars) for the doctoral students.

Recommendations

- Continue and intensify strategic discussions on how to make the higher seminar a vivid and functioning part of the joint research environment.
- Initiate discussions (thematic seminars?) on different academic cultures.
- Find forms for a shared responsibility among the staff for establishing a good research environment for doctoral students.

D2. Publication

D2.1 Publication strategy

Strengths

- From both the self-evaluation and the interviews during our site visit we got a strong impression that the department is struggling to find forms for a more beneficial publication strategy. Taking into account that monographs have been the predominant genre in many disciplines within the humanities (in several disciplines also monographs written in Swedish), it is clear that the current funding system is not fully profitable. This is a complex strategic challenge since, as already mentioned, a substantial share (53%) of the faculty's block grants depends on publications (alongside external funding and PhD defences), according to the measurements and credits in the 'Norwegian list'.
- The department is fully aware of the complexity, but has made a pragmatic choice in its internal planning to adjust to the situation, in line with the faculty's (inarticulate) strategy, and encourage the staff to foremost prioritise international publications in highly-ranked international journals. In terms of measurement of credits, this has proven to be successful, since the department as a whole has significantly increased its publication rates in the last couple of years. In general, the staff finds it positive that the importance of referee publications is taken into consideration. Many also appreciate that publishing in English is given credit in the current system.
- There are also good examples presented by, for instance, gender studies of applying a two-fold-strategy, in regard to both forms/genres for publication as well as choice of writing language. If an article is written in English, it can be published in a popularised version in Swedish.

Weaknesses

- A common fear for the department is that the focus on bibliometrics has been unfavourable for the humanities, as the system is modelled on publishing traditions in the natural sciences. The quantitative focus fosters a mechanistic view on impact and affects the objectives of research. Furthermore, publishing only in international scholarly journals is counterproductive to the aim of reaching out and having a societal impact. As we have repeatedly underlined in our report: these problems are aggravated by the fact that the 'Norwegian

list' is compiled in Norway, which in reality gives the department, as well as the academic community in Sweden in general, only minor opportunities to influence its formation.

- The expectations created by the current bibliometric systems of measurement also lead to a complex paradox, which is born out of the simultaneous demands to publish both in high-ranked journals and in open access fora. This creates a pressure to use an increasing amount of the research projects' and university funding for publishing costs or to publish in free fora.
- One particularly unacceptable consequence of this system, seen from the department's perspective, is that doctoral students are under indirect pressure to choose the most profitable publishing form for their dissertations. In practice, this means that their choice is limited to very few publishing houses – including the paradoxical effect that they, for instance, cannot choose the department's own Acta series.

Recommendations

- The department should actively initiate and/or take part in efforts to influence the formation of bibliometric assessment systems on the faculty, university and national levels. A long-term goal could be to form a national Swedish list that could be adjustable according to the aims and demands of the local research community.
- We also recommend that the department take an active part in and support the national publication project *Kriteritum*, initiated at UGOT, which strives to combine peer-review procedures with open access strategies in collaboration with established publishing houses, through a nationally valid quality mark.

D2.2 Analysis of bibliometric data

Strengths

- Since RED10 the department has impressively improved its publication output in regard to peer-reviewed journals and publishers noted in the 'Norwegian list'. The number of international publications in esteemed journals and publishers' catalogues has increased following the strategic choice to develop this area (see more above: D2.1).

Weaknesses

- While the new bibliometric system manifested in the 'Norwegian list' has enhanced the output according to certain criteria, other criteria have become overlooked. It may be argued that bibliometrics primarily measures productivity and quantitative achievements, not quality per se. This is particularly obvious within the humanities. All research falling outside of the mainstreamed and financially prioritised publication channels therefore runs a crucial risk of being disfavoured and even overlooked.
- The lack of sufficient bibliometric means to measure other forms of impact can, in the long run, lead to a narrowing of the aims and influence of research. One, already mentioned, example of a current dilemma is that a PhD dissertation

published in the department's branch of the university's own book series does not get credits, whereas those published by external publishers do get credits, which makes it harder to make the theses available as open access.

- The homogenising effects of this overemphasised importance of bibliometrics is a risk factor which must be taken into serious consideration, both at faculty and university level.
- Another structural disadvantage that has not been considered enough is that the 'Norwegian list' is actually not necessarily compatible with other internationally applied equivalents. This means that an internationally-recruited researcher with previously excellent publication merits also runs the risk of falling out of the system and receiving few or no credits.

Recommendations

- A long-term goal (cf. D2.1) could be to establish a national Swedish list that would be adjustable according to the aims and demands of the local research community.
- The faculty needs to actively engage in discussions of future publication-strategies, including a consequence analysis of how current strategies favours or disfavors different disciplines within the humanities.

D3. Facilities and research infrastructure

Strengths

- The department has managed to form and develop various collaboration structures both in education and research, foremost in interdisciplinary collaborations in the development of new graduate/master's programmes and courses. Some of these have also resulted in actual joint research projects.
- The present facilities (at Chalmers) seem to be appropriate both in size and function. All members of staff have access to office spaces (even though doctoral students share their rooms), and there is a joint lunch/fika space, bright and comfortable, which also serves as a cross-disciplinary meeting place.
- The new *Humanisten* building (planned to be ready in late 2019/early 2020) was frequently mentioned in the interviews, with high hopes and appreciation for its potential to offer opportunities for new collaboration partners within the humanities.

Weaknesses

- All of the interdisciplinary ambitions expressed in RED10 have not yet been fully realised and implemented. The reforms have, to some extent, been more organisational and administrative compromises than bottom-up realisations of research objectives.
- In addition to the high hopes for the new *Humanisten* building and its anticipated benefits, there are also some worries in regard to the raised rental costs and how that will affect the sizing and access to individual office spaces.

Recommendations

- To prevent worries and insecurity in relation to the move to *Humanisten*, the managing board could initiate an information meeting, where a consequence analysis could be presented (including both pros and cons) and representatives from the faculty could be invited to present their vision for the new premises and the synergy effects they hope to see, for both research and education.
- The department could also actively seek to plan for how new synergies can be created – for instance in form of a “wishlist” – before it moves to the new premises together with the other humanities.

D4. Transverse perspectives

The department has a high degree of awareness regarding the importance – as well as the benefits – of taking on the task of integrating aspects of equal opportunities, gender equality and internationalisation in relation to both research and education. Moreover, they have implemented ambitious action plans for raising the quality level of this work. It is obvious that the action plans are well known among most members of the staff, as well as a prioritised as a shared responsibility that unites all of the disciplines, which, for instance, is shown in the integration of gender theory in most courses.

D4.1 Equal opportunities and gender equality

Strengths

- The high level of insight in questions related to equal opportunities and gender equality is high, which is, at least partly, most likely a result of the importance of gender studies for the whole department. The number of women in the staff is $\frac{3}{4}$ and no salary inequality has been exposed. Notably, the department has achieved a gender balance within the professors’ group. The department also has a strategy for counteracting inequality in researchers’ daily work.
- In its self-evaluation the department underlines the importance of integrating gender equality aspects with all other (according to Swedish legislation) grounds of discrimination: sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.
- For the departmental level, a three-fold strategy has been formulated: 1) Knowledge and implementation (including goals for securing gender-balanced committees and raising awareness of normative patterns in all areas – not least in recruitment routines) 2) Practices (including strategies for inclusion in decision-making, planning of seminars, problematising hierarchical structures etc.) 3) Mentor programme (including goals for encouraging and supporting all employees to participate in opportunities for promotion).

Weaknesses

- Even if the department shows an exemplary (and by national comparison: exceptional) gender balance in one category (professors), the staff as a whole is distinctly dominated by women. This skewed gender balance has sometimes resulted in difficulties in establishing equal representation of women and men

in all management committees. The age profile of the staff and upcoming retirements taken into account, there is also a foreseeable risk that the gender balance in the professors' group will change in the near future.

- We lack information on the department's strategies for handling problems at the work place or, for example, statistics on sick leave.

Recommendations

- We recommend that the department further develop strategies for recruitment and promotion routines, in regard to securing gender balance, particularly in regard to upcoming retirements in the professors' group.
- The department could also draw up a plan for handling problems at the work place, in line with the programme for achieving gender balance.

D4.2 Internationalisation

Strengths

- The department's action plan includes internationalisation as one of its main areas. Budget means for participating in conferences and networking has been allocated to all research staff. Individual researchers have been active in networking and research visits to and from the department have been frequent. Several of the ongoing projects also include an international dimension. The faculty has offered funds for carrying through the ideas of such individuals.
- The employment of an educational coordinator with responsibility for internationalisation (mainly for education, but to some extent also for research), is an important contribution to the establishment of a good infrastructure for support.

Weaknesses

- Internationalisation relies largely on personal contacts. This is on one hand natural, as the processes often require a *primus motor* who is engaged and motivates others to participate. On the other hand, this can also lead to a situation where the activities largely rely on the input of single persons and even to situations where all interested parties are not aware of what resources there are for carrying through international projects.

Recommendations

- In order to strengthen the positive trends, the department should improve information on the possibilities available for internationalisation, strengthen international structures and form agreements so that the processes do not rely on networks and other international contacts connected to individual researchers or research projects.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Research is integrated in the planning, routines and practices of the department. The process of creating an individual research plan, including annual follow-up routines, for each member of staff is currently under development and will be implemented soon. This may potentially be an important tool not least for encouraging staff members who are mainly occupied with teaching to plan for research periods.
- The department has also formed application seminars, in which those who plan to apply for external funding can receive feedback on their drafts. In general, the competition for funding has not hampered cooperation between the disciplines.
- The department has managed to allocate 75% of the work input of one administrator solely for assisting with budgets for research proposals.
- To some extent, the new educational coordinator will provide extra support for the internationalisation aspects of research projects.

Weaknesses

- Collegial support for application drafting relies heavily on the interest of individual colleagues.
- Due to the small size of the department it has not been possible to give one specific administrator full responsibility for research support. These work tasks are shared between different members of the administrator group, according to seemingly complex principles.
- The administrative staff can be overburdened when supporting application procedures in addition to their other duties.

Recommendations

- The support for both national and international research applications could be developed by making sure that there is the administrative support required and by using for example external reviewers, with competences in the respective special disciplines, who could comment on the draft during the sketching of the submission.

E2. Faculty and University-wide support

Strengths

- The university has a Grants and Innovation Office (FIK), which, according to the department, offers university-wide research support of high quality.

Weaknesses

- The allocation of administrative staff for supporting grant processes could be secured at the faculty or university level.

Recommendations

- The department could try to influence decision makers at the faculty and university levels in order to ensure required administrative support for application processes.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

In the RED10 evaluation, the department received the quality grade “poor” in two areas: *organisational capacity* and *future plans*. In comparison to RED10, we do not hesitate to say that the department has reached a considerable level of improvement in its organisational capacity, focused on providing means for a functioning research infrastructure.

In terms of making plans for the future the department is, however, still in a state of abidance. The latter is surely a consequence of the time-consuming efforts to establish both infrastructural means (such as seminars, joint courses, research days, support for research applications etc.) as well as initiating forms for collaboration, within and between the seven disciplines.

As we see it, visions are a result of allowing space for slow thinking processes, at least if they are to be transformed to sustainable and concrete future plans. We noticed that there was a readiness as well as an eagerness among staff to enter this phase of development.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

In the time period from 2009 until now the department has made impressive progress in the first area pointed out as problematic in RED10: *organisational capacity*. In regard to the second, *future plans*, much still remains to be done. As stated above, we are convinced that there is a readiness and eagerness among staff to enter this phase of development. Thus, our concluding recommendations are oriented towards the future:

- We recommend arranging joint thematic seminars/workshops to stimulate future plans and vision-making. An improved and more clearly formulated strategy for the future might support the development of research at the department in general. This could involve discussions on how to support the various disciplines in their aims so that the cooperative potential of the disciplines could be maximised without losing subject-specific areas of strength.

- In addition, we recommend initiating an internal discussion on how to handle the differences in size, strength and resources between the seven disciplines in the near future as well as in a long-term perspective. Questions to be addressed could be: what happens if strong disciplines continue to grow stronger? What are the pros and cons? In regard to aspects like priorities of investments in research support and development of new research profiles and strategies? Will it be possible to maintain high-quality research education in all disciplines? Etc.
- We recommend intensifying the work on articulating concrete aims for structures/work methods and routines that increase transparency and engagement, including a clearer vision of future research activities formulated by the leadership.
- We recommend the faculty to actively engage in discussions of future publication strategies, including a consequence analysis of how current strategies favour or disfavour different disciplines within the humanities.
- We recommend that the department participate in, and insist on, strategic discussions at university and faculty levels on how to secure research quality and continuous recruitment of new doctoral students. The latter is currently a red flag area in acute need of revision and strengthening.
- The department has solid experience of successful collaborations with a broad variety of external stakeholders and should be regarded as a key actor to be invited as a dialogue partner in ongoing discussions at faculty and university levels about the lack of a proper reward system for '*samverkan*'/collaboration.

DEPARTMENT OF HISTORICAL STUDIES

88	Introductory Remarks
88	Section A – Background and Research Standing
88	A1. Background
89	A2. Research standing
91	Section B – Leadership
91	B1. Leadership
92	B2. Recruitment
92	B3. Career structure
94	B4. Funding
94	B5. Feedback and evaluation
95	Section C – Complete Academic Environment
95	C1. Collaboration
96	C2. Relevance and impact on society
96	C3. Research-teaching linkages
97	Section D – Academic Culture
97	D1. Academic culture
98	D2. Publication
99	D3. Facilities and research infrastructure
99	D4. Transverse perspectives
100	Section E – Support
100	E1. Internal research support
100	E2. Faculty and University-wide support
100	Section F – Other Matters
100	F1. RED10 evaluation
100	F2. Other matters
100	Concluding Recommendations

INTRODUCTORY REMARKS

In preparation for the site visit, the panel followed the suggested work progress plan. All correspondence before and after the Gothenburg visit was via email. The panel chair was in dialogue with the Head of Department (HoD) from early January 2019. The HoD provided the panel with a suggested meeting plan for the visit at an early stage. She was also helpful in clarifying points in the self-evaluation and providing requested departmental strategy documents that were not included in the original material from RED19. All main points in the list of recommendations, and the rationale behind these, were presented to and discussed with the department leadership during the preliminary feedback session on Wednesday 3 April.

It became clear to the panel during the preparatory reading of the self-evaluation report that there is a notable discrepancy between the RED19 guidelines and questions about future strategy and planning on the departmental level on the one hand, and what the department leadership in question sees as its role and mandate on the other. This divergence was better understood during the site visit. The department interviews were helpful in clarifying that there is less room for strategic planning for the medium-term (5–10 years) than the department leadership wishes for. This issue also needs to be addressed on the faculty and university levels. The panel misses a sense of vision and strategies through collegial decision-making processes and working together towards common goals based on shared principles and ideas. These observations are in line with remarks made in the faculty-level report.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department seems well consolidated since the reorganisation of the faculty in 2009. The composition of the leadership group reflects the overall organisation of the department, its main constituents and research milieus. The ‘flat’ structure ensures adequate representation of all levels within its three main subjects. Furthermore, the composition facilitates cross-disciplinary collaboration in research as well as teaching, which is key given the importance of teaching. The democratic structure is strengthened by each subject having a chair and spokesperson in the leadership group.

The structure promotes transparency and democratic decision processes. This should ideally transpire to department members outside the leadership group, with regard to knowing who is responsible for what in the leadership group, and thus whom to contact when specific issues or questions arise. The model also secures a leadership with contextual disciplinary understanding, which may be key in coordinating researchers who seek to balance their research time with a whole suite of other tasks, not least teaching and supervision. By being sensitive to the needs of various groups within the department it becomes easier to follow up on day-to-day activities.

The panel notes that the Centre for Critical Heritage Studies (CCHS) has a different organisation model than its host department, which makes it important to clarify the relationship between the department and centres and other strong research milieus. The panel strongly recommends the development of a plan for the integration of research centres in the department and the alignment of strategies in a long-term perspective, and that formal agreements or charters be outlined. During the evaluation period the CCHS has had a place in the department leadership group. This should also be secured with the new leader of the CCHS.

From the perspective of achieving the aim of more time for high-quality research, the panel highlights two current challenges:

1. A high degree of permanent staff is involved in various kinds of administrative and committee work, which might not be compensated sufficiently, thus potentially resulting in coming at the cost of quality research time.
2. While roles and responsibilities may be clearly divided internally in the leadership group, it may be more difficult for all department staff outside the leadership to get an overview of responsibilities and decision-making processes. Responsibilities and decisions do not appear as transparent to researchers with less experience of the local university system, such as PhD students, early-career researchers and newly arrived colleagues with a different academic background.

It cannot be overlooked that the issue of quality research time is inseparable from teaching.

The Departmental Council (Institutionsrådet) and *The Working Committee for Research and Doctoral Studies (FOFU)* are of direct relevance to this evaluation, but it is important to include *The Working Committee for Undergraduate and Master's Studies (GRU)* in strategic planning.

The panel recommends that strategic planning for the medium-term (5–10 years) be implemented at regular intervals, and that such planning be conceived more broadly than is currently the case. To refrain from top-down research plans is a wise strategy, but priorities and strategic decisions have to be made. Specifically, the department needs a strategy that includes a plan for recruitment and visions for its future research profile. This offers the opportunity to formulate precisely how and why future positions and research directions fit into the envisioned profile of the department and its affiliated research centres, groups and networks.

A2. Research standing

The self-evaluation report provides a very good overview of the department's research profiles, for the evaluation period and the current status. Organised into the three main subjects *History*, *Archaeology* and *Classical Archaeology and Ancient History*, the report clearly outlines the wide range of research topics within the department, thereby also illustrating the wide range of publication

practices and expectations. The self-evaluation makes clear just how diverse, interdisciplinary and engaged in public outreach the department is as a whole. Significantly, the report overview offers support to the department's decision not to follow the main recommendation of the RED10 report, which was to narrow the number of research areas. Instead, the department has chosen to hold on to its organic bottom-up approach to research development.

In addition to the three subjects, the department includes four research centres and infrastructures. These are the *Biographical Lexicon for Swedish Women* (SKBL), the *Committee for Medieval Studies*, the *Centre for Critical Heritage Studies* (CCHS) and *The Swedish Archive for Rock Art Research* (SHFA).

The CCHS is a national and international success story, and its continued existence as an interdisciplinary hub for critical heritage studies, in whatever form and size, should be taken into account in the department's long-term planning (see pt. A1 above).

History displays a diverse range of research interests, naturally anchored in Swedish history and sources, but by no means limited in terms of geographic and thematic scope or approach. There is a clear focus on social history and gender issues. There is relatively less focus on large projects, and more emphasis on individualised critical reflection, often published as a single-authored monograph in Swedish or in English.

The Medieval History research group is strong within *History*. Within *Archaeology* and *Classical Archaeology and Ancient History*, the Bronze Age Group is particularly strong. The group has an interdisciplinary scope and has been a driving force in the global 'third science revolution' within archaeology in the last two decades. Examples include the Archaeology and Genetics project and the distinguished position of Rock Art research. The focus on the Neolithic is also strong, and the international profile of the department is clear in its long-term engagement in Latin America. Within *Classical Archaeology and Ancient History* most researchers are active in more than one research area. Prominent examples of research initiatives include the ARACHNE network and fieldwork in Cyprus and Thessaly.

From an international perspective, the listed projects and research groups are well above average. The strongest parts of the Bronze Age milieu are world-leading. Importantly, the research quality is also high for several of the more individual single-author projects within the three subjects, including those published in Swedish, but their *international visibility* remains on an average level. There are few indications in the self-evaluation and the publication data provided that any of the research at the department is significantly below average.

As already indicated, a main challenge with regards to evaluating the current research standing is the absence of strategies and plans for the department as a whole. Interviews during the site visit made it clear that such aspirations and

plans certainly do exist, even though they still need to be clearly articulated, and the general impression is that they are relevant and convincing. However, such planning seems to be less systematic and indeed largely 'privatized' into being a matter for the individual researcher, project, research group and research centre.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- A democratic leadership model that is interdisciplinary and sensitive to the needs of individual researchers within different subjects and fields, their advantages and challenges. Challenges and tensions may be identified and handled at an early stage.
- The decentralised structure and relative independence from the faculty level provides the opportunity for local freedom to plan and to act accordingly.
- The annual employee review is taken seriously. This is a valuable arena for dialogue and follow-up of all academic staff members.

Weaknesses

- A reluctance to strategise and prioritise for the medium- and long-term. A clear vision or strategy for renewal and priority beyond the short-term (2–3 years) is absent.
- A reluctance to better integrate strong research environments such as the CCHS, and thus consolidate these within the department in terms of organisation and scientific output.

Recommendations

- A medium- to long-term vision and plan for strengthening the research profile, organisational coherence and visibility of the department. This should include a strategy for how to further develop existing strong research environments, and how to kindle and support new research initiatives.

B1.2 Faculty/University level leadership

Strengths

- The decentralised structure allows for more research decisions to be made locally.
- The communication between the department leadership group and the Faculty Dean and Vice-Dean.

Weaknesses

- An absence of demand for recruitment planning and guidance from the faculty level.

- The decentralised structure may prevent the faculty level from effectively intervening in departments when needed. Less opportunity for the faculty to be the outside voice in departmental conflicts or tensions.
- The decentralised structure may entail an absence of strategic support and coordination provided by the faculty or university levels, in order for departments to be competitive in attracting external funds and projects.

Recommendations

- Medium-term strategy documents should be required from each department at regular intervals, followed by clear guidelines from the faculty level, and subject to a common set of responsibilities. This will facilitate the coordination of research efforts and the placement of department-level planning within a wider scope and time frame.

B2. Recruitment

Strengths

- The department in general has a high standing, internationally as well as nationally.
- A high degree of continuity in strong research milieus and groups. Once recruited, staff members have a clear tendency to stay at the university for an extended period of time.

Weaknesses

- The absence of a clear recruitment plan for the medium-term, in order to guide future hiring of permanent and contract staff.
- A high degree of internal recruitment. Hiring and promotion processes are found to be less transparent by junior staff members and early-career researchers.
- It is challenging to recruit permanent staff beyond Sweden because of undergraduate teaching and ensuing language requirements.

Recommendations

- A strategic recruitment plan for the medium-term (5–10 years) that functions as a proactive tool to address key questions: What kind of positions will be advertised after each retirement? A ‘replacement’ in a similar position, or a new type of position grounded in novel teaching and/or research requirements? And, how should the department approach current challenges to improving inequality and gender imbalances, to increasing internationalisation and to improving recruitment from minority backgrounds?

B3. Career structure

Three issues are emphasised as key to career structure: 1) access to quality research time, 2) allocation of teaching and 3) hiring and promotion processes. Regarding the third point, the faculty is recommended to develop a clear and concrete policy for the balance between promotions and open calls, and one in which open calls should be used much more than they are at the moment.

Strengths

- The opportunity to apply for research funds for a month's research leave.
- The annual research funds allocated to each academic staff member.
- Opportunities given to teachers to improve pedagogical qualifications.
- The leadership's encouragement towards relevant candidates in applying for promotions, and their provision of feedback and practical assistance.

Weaknesses

- Maintaining groups of staff with only 10% and 20% research time may in practice inhibit individuals from these groups from moving up the promotion ladder. The panel notes a worrying asymmetry with regards to research time, which risks a deepening of the sense of division into 'A' and 'B' researchers – with the 'A group' comprising permanent staff members who are relatively more privileged, and who have sufficient quality research time and funds to write and develop new projects; and the 'B group' consisting of lecturers with 10% research time, and non-permanent staff on contracts, who feel relatively more stuck in day-to-day teaching and routines (having, nonetheless, deep knowledge of the everyday workings of the department).
- A high degree of internal recruitment, largely due to the heavy dependence on teaching of undergraduate courses in Swedish, carries the potential for unnecessary divides between 'locals' on the one hand, and 'newcomers' or 'outsiders' on the other.
- A lack of transparency in hiring and promotion processes. Early-career researchers in particular find such processes not to be sufficiently open and clear.
- A lack of transparency and consistency in planning and allocation of teaching, especially for early-career researchers.
- Mentorship and guidance for early-career researchers are mostly informal and found to be unevenly distributed.
- A likely effect of the persistent gender imbalance is that the pushing of quality research time outside of working hours has a particularly negative effect on women.

Recommendations

- The panel supports the recommendation to the faculty for considering systems for allocating research time among permanent staff that are conducive to preventing a division into A and B researchers, and recommends that the department signal its position and take an active role in this regard.
- Planning and management of the academic year that is as transparent as possible. A practical suggestion is to implement a 'year wheel', so that teaching can be rotated and allocated, scheduled, and planned at an early stage for each semester.
- Consider implementation of block teaching, e.g. by dividing each semester in two or three blocks, in order to allow for foreseeable periods of quality research time.
- Strive for transparency in all hiring and promotion processes. In line with the recommendation to the faculty level, the department is encouraged to have a

clear policy for the balance between promotions and open calls, and to ensure that open calls are used when possible.

- Develop an internal mentorship programme for early-career researchers and for new colleagues from other academic backgrounds, taking equal opportunities and gender equality into account.

B4. Funding

The panel acknowledges that the economic challenges the department currently faces must be seen in a broader context, within the faculty and university as a whole, and for the entire Arts and Humanities sector in Sweden.

Strengths

- A highly valuable knowledge base consisting of individuals, research groups and at least one research centre that have been successful in acquiring external funding.

Weaknesses

- Decreased revenues owing to falling student numbers.
- A recent decrease in performance-based research funding, not only in actual funds but also in percentage relative to the other departments in the Faculty of Arts.
- The *Matthew Effect* (more funding to those who already have a lot of funding) may create hindrances for multi-disciplinary or cross-disciplinary work.
- An absence of a clear strategy for the PhD programme. Specifically, the department should develop a strategy for meeting the effects of a) the lack of PhD recruitment, and b) the frequent extensions of PhD projects beyond the 4-year limit, both of which are likely to create a bottleneck effect.

Recommendations

- Consider an internal reward system for committing time to writing external grant applications. For example, by offering teaching reduction or teaching-free blocks while writing an application.
- Formalise application processes for external funding. Promote continuity through a mentorship programme and group activities, and avoid the vulnerability of knowledge and know-how becoming too individualised.
- A long-term programme for career planning and project development for candidates who may compete for international funds, such as the ERC.
- Signal clearly to the faculty that the department would support a solution where the faculty co-funds mainly externally-funded PhD students, in order to get more PhD students into the system.

B5. Feedback and evaluation

Strengths

- The individual follow-up of academic staff members' research performance is integrated into the yearly conversation with the Head of Department.

- The voluntary model encourages and rewards initiative and engagement.

Weaknesses

- Leaving feedback and evaluation to voluntarism and in seminars only is vulnerable, since it depends on staff members' commitment to attend. Site interviews revealed that seminar attendance was unevenly distributed among permanent and senior staff.
- The voluntary and organic bottom-up model makes it easier to avoid binding commitments.

Recommendations

- While keeping the voluntary basis, the department should also consider ways of thinking of feedback and evaluation beyond seminars and more as a long-term process.
- Consider a system where senior staff have formal roles as mentors for younger staff members planning applications for promotion, and offer guidance for less experienced academic staff or offer welcoming mentorship for recently arrived staff.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The department hosts several interdisciplinary projects. Some of these include internal interdisciplinary collaboration, such as research on the Bronze Age, the History of Textiles, Medieval Studies and Cultural Heritage Studies. Several projects are externally funded.

Weaknesses

- No formal medium- or long-term strategy for the department's relationships with external and semi-external research centres, groups and milieus.

Recommendations

- Include a strategy for the department's role in future collaboration with key research networks and centres such as the CCHS in the suggested medium-term visions (see pt. A1 and B1.1).

C1.2 Collaboration with external stakeholders

Strengths

- Within the department's current activities there is a huge potential for expansion of pre-existing collaborations with external stakeholders. Examples in-

clude (but are not limited to) the Heritage Academy, the Antiques Museum and Medborgarskolan, collaboration on non-invasive documentation technologies and visualisation, and projects aimed at co-production of knowledge with disadvantaged groups in the Global South.

Weaknesses

- There is a notable absence of a coherent, medium-term strategy and set of visions behind the many praiseworthy engagements with external stakeholders.

Recommendations

- Include stakeholder communication and interaction in a medium-term strategy (5–10 years) for the department as a whole. A strategy towards common goals based on shared principles and ideas.

C2. Relevance and impact on society

C2.1 Management and support

The panel refers to the faculty report (pt. C2) on this point.

C2.2 Research relevance and impact on society

The panel refers to pt. C1.2 for recommendations on this point, and to the faculty report (pt. C2).

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Most researchers and their projects are well integrated into teaching.
- The motivation for contributing to teaching among early-career researchers is generally very high.

Weaknesses

- The available teaching resources, especially among early-career researchers, seem somewhat underexplored.

Recommendations

- Consider types of teaching that facilitate more research integration and active use of ongoing projects. Examples include group/task-oriented teaching, case studies and experiments.
- Develop a medium-term strategy and guidelines for the department's integration of research teaching, including explicit expectations for future research projects to have an educational profile, where and when this is possible.

C3.2 Doctoral education

Strengths

- The department has an open, inclusive and attractive research profile.

- The department leadership is well aware of the financial and structural challenges, and is proactively seeking solutions.
- All PhD students are required to present their work at least once a year, and to actively participate in discussions at each other's seminars.

Weaknesses

- The recruitment of PhD candidates has stagnated.
- More PhD candidates should finish on time, within four years, than is currently the case.
- An absence of long-term planning and ambitions for the PhD programme.
- The foreseeability for the individual PhD student can be improved. Students experience an absence of milestones and express a wish for a midway evaluation and more career guidance in the final stages.
- Absence of a common knowledge base for the PhD students, a common set of practical guidelines for the procedures involved in the PhD work.
- Uneven attendance and acknowledgement of the importance of PhD seminars among PhD supervisors. The attendance of senior staff members at PhD seminars is generally too low, sometimes resulting in students being left to comment on each other's work without senior staff present.
- The PhD students report that there is too much variation between supervisors in terms of time and energy spent on supervision.
- The PhD coordinator role is unclear to the students.
- Assigning teaching to PhD students is found by several to be unfair and ad hoc.

Recommendations

- Develop a long-term plan and set of ambitions for the PhD programme.
- Introduce a 'welcoming package' for new PhD students, including an introductory seminar and a set of guidelines, expectations and an overview of available resources.
- A formalised midway evaluation.
- Develop a set of general guidelines for the PhD seminars, including the expectations of PhD supervisors and other senior staff.
- Introduce measures to minimise variation in the amount of supervision, and develop a set of transparent guidelines for the role of PhD supervisor.
- Strive for continuity in the coordination of the PhD programme.
- Work towards the best possible transparency and foreseeability in the allocation of teaching responsibilities for PhD students.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- A certain degree of integration of early-career researchers (postdocs and PhDs).
- The social integration of new staff members is generally good.

Weaknesses

- Several early-career researchers feel less included.
- The self-evaluation says little about how to reward creativity and ambition.
- The promotion and hiring processes appear unclear to early-career researchers.
- The use of externally funded staff in teaching appears ad hoc.

Recommendations

- Social integration, especially of temporarily employed staff members coming from different academic traditions, should be a high priority. A plan for integration could, for example, include ways to make more use of the expertise of successful externally funded researchers in developing new funding applications.
- Increase the transparency and clarity of promotion and hiring processes.
- Assign mentors to younger staff and a welcoming contact person for newly arrived colleagues.
- Consider measures to increase transparency and foreseeability for the planning of teaching (see recommendations for pt. B3), especially for early-career researchers.

D2. Publication

D2.1 Publication strategy

Strengths

- The department shows great concern with duly registering its publications, and a publication strategy – demonstrated not least by their launching of monographic series – is a distinct feature of the research centres.

Weaknesses

- However, a unified publication strategy seems not to be characteristic of the department.
- Perhaps too many unranked publications.

Recommendations

- An equal opportunities analysis that results in a medium-term strategy in line with the strategy for the department as a whole. The analysis should seek to understand in detail why there is a consistent pattern of men outperforming women. The strategy should take into account that the current distribution of research time among academic staff most likely contributes to gender asymmetry.
- An open access publishing strategy.
- Consider supporting initiatives such as writing seminars, e.g. ‘shut up and write’.

D2.2 Analysis of bibliometric data

Strengths

- The monograph series initiated by the research centres enjoys international acclaim and is commended.

Weaknesses

- Too few peer-reviewed articles in international journals on Level 2.
- The bibliometric statistics show imbalances as regards the ratio of ranked to unranked publications and as regards the performance of female and male staff.

Recommendations

- Consider including in the overall strategy the goals of a) increasing the number of ranked publications and b) establishing a balance in the scholarly production of men and women.
- Consider measures to encourage relatively more ‘risky’ submissions to high-ranking journals over ‘safe’ edited volumes chapters. An example is organised mentorship, where less experienced researchers can get feedback and evaluation from experienced colleagues (see also recommendation for pt. B5).

D3. Facilities and research infrastructure

The department appears to have access to the facilities and research infrastructure needed for day-to-day work processes. In some cases, these facilities and infrastructures are affiliated to other departments and centres within, as well as outside, the University of Gothenburg.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

The department’s equal opportunities representative is highly engaged and is clear on the employment of a broad and inclusive definition of equal opportunities.

The panel recommends that the department work with the faculty level towards a wider definition of ‘productivity’ in research output (see also comments in pt. D2 in the faculty report). Also, the panel refers to comments and specific recommendations in pt. B3 (career structure) and D1 (academic culture) in this report for measures that relate directly or indirectly to improving equal opportunities and gender equality.

D4.2 Internationalisation

The panel notes that the department has been committed to improving internationalisation since RED10, with concrete and measurable results (see also pt. F1 below).

Recommendations

- Provide information about research mobility and encourage staff members to apply to schemes such as COST or Erasmus Plus exchange programmes.
- Consider international mobility as a requirement for granting the ‘research month’, in cases where this will clearly benefit the researcher.
- Consider having a plan for international mobility as a requirement for acceptance on PhD programmes, e.g. a minimum of one semester abroad.

SECTION E – SUPPORT

E1. Internal research support

Relevant comments and specific recommendations on internal research support are found under pt. B3 (career structure), B5 (feedback and evaluation) and C3 (research-teaching linkages).

E2. Faculty and University-wide support

The panel notes that the department leadership is satisfied with the current meeting frequency with the faculty level and follow-up from the Grants and Innovations Office, although some weaknesses are observed (see pt. B1.2 above). The panel refers to the faculty level report for further comments and recommendations.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The department worked actively with the implementation of recommendations from the RED10 report. An example is the response overview and action plan, which the panel received from the current HoD on request. This plan had four interlinked strategies for developing and strengthening an international research environment, and had a total budget of SEK 1.8 million. With one exception, the recommendations in the RED10 report have been followed up, with visible and measurable results. In RED10 the department was criticised for having too many research areas, and the recommendation was to narrow the number of research areas and focus on those that were regarded as having the greatest potential for international recognition. The department has taken an active stance not to follow this advice. The main reason for this is that it does not sufficiently take into account the importance of the university's economic model and its reliance on student numbers and the importance of teaching. The department sees the breadth of research as a strength and indeed necessary for teaching. However, while RED10 has initiated an active strategic plan for internationalisation, mobility and publication, there has not been such a strategy developed for the research profile of the department, nor a recruitment strategy.

F2. Other matters

None.

CONCLUDING RECOMMENDATIONS

1. A medium-term (5–10 years) strategy for further development of research and the department's publication profile. The panel strongly recommends that this includes an approach for the integration of CCHS and for the department's involvement in future centres, groups and research environments (see pt. A1 and B1).

2. A medium-term (5–10 years) recruitment strategy that seeks to balance replacement after upcoming retirements with the need for renewal and new priorities (see pt. B2).
3. A strategic long-term vision for further development of academic culture, in order to prevent the deepening of a divide into A and B researchers (see pt. B3).
4. Time planning and management of the academic year, to make teaching as foreseeable as possible for all teaching staff (see pt. B3).
5. Consider measures to organise the individual teaching semester into segments, such as block teaching. This would make it easier to free up parts of the semester for carrying out research.
6. To strive for transparency and predictability in allocation of teaching and other departmental roles and responsibilities (see pt. B3 and C3.1).
7. To strive for transparency in hiring processes and promotions (see pt. B3).
8. To formalise a mentorship programme for early-career researchers and new staff members. This should also be a measure against inequality and gender imbalance (see pt. B3 and B5).
9. To formalise knowledge-sharing and measures for integration of less permanent staff. One way forward is to build on the immense strength and success in applying for external funds, and to further develop this, including externally funded researchers as far as possible. The panel suggests a long-term programme for career planning and project development for candidates who may compete for international funds, such as the ERC (see pt. B5).
10. Consider concrete adjustments to the PhD programme (see pt. C3.2).

DEPARTMENT OF LANGUAGES AND LITERATURES

104	Introductory Remarks
105	Section A – Background and Research Standing
105	A1. Background
106	A2. Research standing
107	Section B – Leadership
107	B1. Leadership
108	B2. Recruitment
109	B3. Career structure
110	B4. Funding
111	B5. Feedback and evaluation
112	Section C – Complete Academic Environment
112	C1. Collaboration
113	C2. Relevance and impact on society
115	C3. Research-teaching linkages
117	Section D – Academic Culture
117	D1. Academic culture
118	D2. Publication
119	D3. Facilities and research infrastructure
120	D4. Transverse perspectives
121	Section E – Support
121	E1. Internal research support
122	E2. Faculty and University-wide support
123	Section F – Other Matters
123	F1. RED10 evaluation
123	F2. Other matters
124	Concluding Recommendations

INTRODUCTORY REMARKS

We would initially like to thank the University of Gothenburg (UGOT) for the opportunity to get to know the Department of Languages and Literatures (*Institutionen för språk och litteraturer*, hereafter SPL) and their research. It has been a very rewarding experience and the department has been extremely helpful in providing a good framework for our work. People have been open and responsive to our questions and our input.

This report is based on:

- the self-evaluation of the department;
- the data provided by RED19 (financial data, bibliometric data and staff data);
- Interviews with leadership, Research Areas, subjects (*ämnen*), international newly hires;
- PhDs.

In the interviews we tried to follow a similar scheme, starting with open questions that focused on conditions for research, research ambitions, and obstacles, to then attempt the untangling of more specific issues.

Before addressing the respective issues under each heading below, we would like to point out two factors that seem crucial for the evaluation of SPL's research environment. Firstly, SPL is currently in a difficult financial situation. This naturally gives less room for manoeuvre and even cuts in research funds (for instance, the general allowance for going to conferences etc. and there are no PhD positions advertised this year). Secondly, SPL is primarily a teaching-driven department. Teaching is what generates the major income and what takes up most of the faculty's time, and teaching is the decisive factor in their hiring policy. We have accordingly noted that the self-evaluation normally uses the term "teacher" for permanent academic staff (the title *forskare* "researcher" being reserved for externally-funded staff with 100% research). We understand that these two aspects are outside the control of the department, but we find that they are crucial for the understanding of the current situation and the research environment at SPL.

Finally, we would like to emphasise that our report is a snapshot of the current situation as we perceived it at the time of our visit. In some cases, we have learned after submitting our first draft that the department has already taken measures in the direction we suggest. This is excellent news! However, this might be an indication of the fact that communication should never be underestimated.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

[Describe briefly how the Department is organized]

The department is still a rather recent merger (10 years old) consisting of 12 languages with scholars working in different disciplines within these (e.g. popular culture, linguistics, philology, literature etc.). Needless to say, it is a hard task to organise this in a way that caters for all.

Like the rest of UGOT, the department is managed within the framework of a rather hierarchical line management where the power lies with the *prefekt*. She also has a group of leaders around her. Particularly relevant for research are the Assistant Head for Research and the Assistant Head for Doctoral Education. Still, there is a collegial forum to ensure a certain degree of involvement, the Department Council (*institutionsrådet*), with representatives from staff and students (including PhDs). There are also other fora, subgroups to the council, such as a group for first and second cycle education, and a group for third cycle education and research. There are also subject meetings, supervisor meetings etc.

The department is further grouped in subjects (*ämnen*) and five overarching thematic Research Areas. The Research Areas are perhaps the most important strategic move on the research side made by the department and the result of a long ongoing process in the aftermath of RED10. The current groups are now about three years old.

[Do you have considerations or recommendations with respect to how the department is organised and the structure of leadership?]

While the PhDs feel well represented in the politics of running the department, several among the academic staff feel somewhat less included in the processes. In general, however, they also feel that they are more involved under the current leadership than under the previous one. The framework is, as stated, a hierarchical line management model, but within this the current management seems to try to compensate with open meetings etc. and should continue to do so. Information distribution and transparency with respect to decision-making is crucial.

There is always a tension between top-down and bottom-up initiatives in an organisation like this. Likewise, it is important to strike a balance between dynamic entities and predictability. The Research Areas were apparently the result of a bottom-up process, although the process was started by the previous leadership in the aftermath of RED10. To a certain extent, the Research Areas require continued work and discussion in the department to meet their full potential as an organisational structure.

To the panel the Research Areas seem like a good idea, despite the fact that the general enthusiasm around them appears variable among the staff. They also function rather differently based on the coherence of the groups and the people involved. In general, the more thematically coherent, the more functional – though some also work as functional umbrellas. The fact that these groups are allocated a predictable amount of funding that they can use freely is viewed as a good thing by the staff. As we discuss below (A2), they should be considered as dynamic entities, where some of them may benefit from reconfiguration.

A2. Research standing

Comment on:

- *Research, research profiles, strategies and plans – are they relevant and convincing?*

As far as we can see the department does not have many strategic plans, and what strategies they do have are mostly of a generic nature. That is, the strategies are more general ambitions, such as aiming for more publishing and obtaining external funding rather than prioritising specific areas or means to achieve such goals. Nor does the department seem to have a strategy in terms of profiling or building on specific strengths in a national or international perspective. The ambitions might therefore seem rather modest if the goal is to be an international *research* institute, but in the context of the department's strong tradition as primarily a teaching unit and the amount of time allocated to research it seems perfectly reasonable and convincing.

The Research Areas work as incubators for project proposals and appear to be the department's single strategic instrument to promote collaboration and high-quality research. This instrument seems to us like a good means for doing just that, though some groups might be in need of some adjustments. The success of the respective Research Areas is dependent partly on the people, but also on having the right thematic level (broad enough to encompass a big enough group, but specific enough to be meaningful).

- *The quality of the department's research from an international perspective within its field. Please elaborate on the standing of the department's research. Is it clearly above average, average or below average?*

To answer the question of the department's international standing is a difficult task given the material that we have been given. Nor is the main objective of RED19 to evaluate the quality or output per se. For a fuller picture – still without reading actual publications – it would be interesting to see how many people are used as referees, editors, guest lecturers, etc. Furthermore, it would be interesting to see a placement record for PhDs. However, with the limitations above in mind, we would like to say that we are impressed by what the department achieves within their present framework. When making international comparisons – like the bibliometric analysis – it is important to take into account the heavy emphasis on teaching. When we take this emphasis into account, the output is quite good (cf. D2.2). Likewise, there seems to be an upward trend in securing external funding

from the Swedish Foundation for Humanities and Social Sciences (RJ) and the Swedish Research Council (VR), which indicates that they are doing competitive research on a national level. So far there is no EU-funding, but this is in general difficult to obtain and does involve a major time investment in preparing proposals.

- *The current aspirations for new research initiatives (major new projects etc. – are they relevant and realistic?)*

The current aspirations do not seem very high – with some exceptions – but they appear realistic within the current framework. So far, most of the externally-funded projects are individual rather than collaborative. It would perhaps make sense to be more ambitious for bigger grants which could include PhDs and postdocs. There does not seem to be an ambition regarding EU-funding such as ERC starting grants or Marie Curie individual fellowships.

- *The department's aspirations and vision for the medium-term (5–10 years) future – are they relevant and convincing?*

Again, this is rather modest (“*equal amount or more externally-funded projects gradually applying to all research subjects and areas,*” p.6 of self-evaluation), but convincing and realistic given the available resources. Working towards a system of concentrated research time and internal funding for sabbaticals are very good measures in this respect.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The current leadership is viewed positively by most staff members. There is confidence that the new leadership will do their best to promote positive changes with respect to the current economic situation and with respect to how decisions are made at the departmental level. The department leadership is largely viewed as accessible and present by staff at all levels, and appears to be willing to develop a “culture of explaining” that increases transparency.

Weaknesses

- Despite this generally positive view of the new leadership, many staff members still regard decision-making as non-transparent and as a top-down process that sometimes results in poorly grounded decisions that have an impact on the everyday situation for departmental staff. Several staff think there is a culture at the department, perhaps resulting from a combination of financial issues and tradition, where research is seen as a luxury that the leadership encourages staff to do in their free time, unless they have external funding. From the point of view of research focus, this is an unfortunate situation.

Recommendations

- We recommend that the department leadership continue to work towards making important decisions as “bottom-up” as possible and that they look for ways to include staff in the decision-making process, as much as possible. The troublesome economic situation can possibly be handled by keeping staff in the loop on developments and necessary (negative) changes to resource distribution and support. We realise that the complexity of the departmental make-up with respect to subjects and research orientations is an obstacle to an inclusive management strategy, but it is a challenge that we encourage the department leadership to take on.

B1.2 Faculty/University level leadership

Strengths

- From the implementation of an evaluation programme such as RED19, it is apparent that the university leadership wants the University of Gothenburg to be a leading research organisation, nationally and internationally. University- and faculty-level leadership appear to allow for a large measure of freedom with respect to how departments wish to organise their teaching and research. There are also excellent support structures in place for applying for international (ERC) grants as well as for carrying out individual research.

Weaknesses

- Although university and faculty leadership has not been a focal topic of discussion in our meetings with staff at the SPL, we get the sense that the economic distress that this department is under is shared by other departments of the Humanities. It is beyond our capability to assess this (purported) situation, but if it is indeed a trend that many departments in the Humanities are unable to make ends meet, then this is a situation that the university and faculty must develop coordinated efforts to ameliorate.

Recommendations

- We recommend that university and faculty leadership work towards finding viable solutions to the economic problems that the departments of the Humanities are facing, and that they do so in a coordinated way that involves all relevant parties to ensure that all important decisions in this regard are firmly grounded with staff and department heads.

B2. Recruitment

Strengths

- SPL is a quite large department with many qualified staff. The department also houses a large number of PhD students. This implies that the department is seen as an attractive work place and that it has a unique profile for potential applicants due to its mosaic composition of different subjects.

Weaknesses

- The department has put the recruitment of several key positions on hold for more than two years. This year, no new PhD positions were advertised due to the financial situation. This is a severe problem for the department as a whole and can easily become a downward spiral, resulting in even greater difficulties with respect to hiring new staff and admitting new PhD students (see also C3.2, below). Replacements of staff who are on leave, or who have secured external funding, is not always done in a balanced way. For instance, two full-time lecturers (who are on leave) were replaced by a temporary position with 75% teaching time. The work load for this replacement is likely much greater than the 75% would permit, and should be avoided. When talking to staff there seems to be an apparent lack of strategy for recruiting staff and PhD students. It is not clear to us how recruitment is decided (that is, the profile of the position and the area in which to hire) nor does it appear to be for staff whom we have approached with this question.

Recommendations

- We recommend that the department secure means to hire PhDs for the coming year(s) and that these candidates be well connected to ongoing research and that there are suitable supervisors for these future students (cf. C3.2). There is also a need for long-term planning and strategic decisions regarding hiring of staff, especially professors for subjects that currently lack such positions. It would be beneficial for the research profile of the department if decisions for recruiting new staff would look beyond teaching needs to emphasise research profile/competence of future staff.

B3. Career structure

Strengths

- The department has recently announced that it is ready to grant extra working hours to some of those who are preparing research applications. The department leadership also actively encourages applications for external funding. In conversation with the leadership we learned that there are plans to develop initiatives to support and encourage research applications.

Weaknesses

- There are currently very limited means to support researchers in their academic careers and this is apparent in conversation with staff at all levels, many of whom expressed a certain frustration. We note a lack of explicitly formulated strategies for supporting research and career development. This is connected to the teaching profile of the department and the heritage of the individual components of the current department, which traditionally emphasised research to a lesser extent. Despite the fact that there is a published policy for distribution of research time, the panel still experienced a sentiment among some groups that decisions regarding research time for staff are being made “above people’s heads” adds to this frustration.

Recommendations

- We recommend that the department leadership develop explicitly formulated strategies for career support and career development on all levels of staff (PhD, Lecturer, Senior Lecturer, and Professor). Important components of this strategy should be guaranteeing time for “competence development” (*kompetens-utveckling*), providing possibilities for sabbaticals and expand opportunities for application preparation. We learned that the current coordinator of the PhD programme has plans for more generic career development activities. These should be encouraged and perhaps coordinated with similar initiatives at other departments.

B4. Funding

Strengths

- The department receives block grants for research from the Faculty of Arts and it is free to do what it wishes with these funds. This gives the department a lot of freedom, but any allocation of research time to individual researchers is also restricted by these grants. Moreover, we noticed some gender imbalance in the distribution of such funding (see D4.1). Outside of these block grants, staff members have recently been successful in securing external funding from e.g. VR and RJ. The department offers workshops on writing applications and there is also a climate for reading and commenting on each other’s draft proposals in most of the Research Areas and subjects.

Weaknesses

- The department lacks a clear strategy for funding. The block grants for research have also been reduced recently, which means less funds to distribute in the form of research time for individual researchers. The lack of an explicitly formulated strategy for funding in actuality contributes to a situation where high-quality research is at risk. The department leadership also sends out some conflicting signals with respect to their willingness to support funding of PhDs. There is one reported instance where a researcher who was in the process of applying for external funding was discouraged to include a PhD position as part of the proposal due to the fact that including a PhD candidate would put the proposal over a financial limit where the applicant would get substantially less research time in the proposed project. This might be a misunderstanding or a requirement by the external funding body, but nevertheless points to the importance of communication in these matters. There is also a practice at the department to take away block funding for research provided by the faculty once an individual researcher is awarded external funding. This practice is perceived as a punishment from the point of view of the staff. Funding through collaboration with external stakeholders is a strategy that could also be developed further (see C1.2).

Recommendations

- We recommend that the department formulate an explicit strategy for funding, which clearly signals that research is an important part of the profile of the department, and that staff can expect support to secure external funding. It is important that the reasons for different policies are clearly communicated to all members of staff. The department should also ascertain the reasons for the observed gender differences in terms of the allocation of block grants for research. Possibilities to obtain additional external funding through collaboration with external stakeholders should be further explored.

B5. Feedback and evaluation

Strengths

- The new leadership is viewed as available and open to suggestions and criticisms. The formulation and organisation of the Research Areas have been evaluated in the past as they emerged from the previous “research profiles,” and they are expected to continue to be evaluated in the near future.

Weaknesses

- Many staff feel that they are invisible as researchers and “not listened to”. Such sentiments are very likely resulting from the financial situation of the department, but are also connected to the existing culture of “teaching first” and the university’s departments’ traditional top-down organisation that is institutionalised in the hierarchic “power structure” (with *institutionsrådet* having no “legislative” function). There appears to be a lack of feedback and publicly visible appreciation of successes, such as successful external funding and publications.

Recommendations

- Departmental leadership is crucial for improving feedback and evaluation with respect to research-related activities at the department. Clear strategies and long-term planning should also produce opportunities for regular and publicly visible appreciation of individual and collective research efforts. We think visibility as a researcher is linked to celebrating publications and successful applications for research grants. This should also be taken into account in the design of a new website for the department. We also recommend that the department draw on research strengths in profiling teaching programmes, which is a way of making research activities visible to the outside.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- All staff appear to be part of one, or more formal/informal networks. Such networking takes place within the University of Gothenburg (UGOT), on a national, and on an international level. The most active and fruitful forum for collaboration is the regularly occurring seminars that are organised subject-wise and which offer staff and PhD students an opportunity to present and discuss the research questions they are most engaged in.
- Many researchers at the department participate in workshops and conferences organised outside UGOT. Those whom we asked all feel that they are part of an international research community. The “flat allowance” granted to the Research Areas also makes it possible to invite, every now and then, guest lecturers from abroad. Occasionally, workshops or conferences are also organised at UGOT (externally funded).

Weaknesses

- Due to a lack of a “critical mass” and/or a lack of time, both subject-specific seminars and the events organised by the Research Areas are sometimes not attended by as many people as the organisers would have liked.
- Collaboration across departments and inter-faculty and/or international synergies often face administrative challenges. It may, e.g. require an excessive time investment to issue cooperation contracts, and large amounts of research funding can be swallowed by overheads and indirect costs.
- Collaboration with an aim to secure EU funding is largely absent, either due to lack of time, cumbersome administrative processes, or because of a lack of motivation given that research time gained by obtaining external funding is perceived as detracted from the standard block grants for research. This has resulted in the sentiment that in the long run, it is not worth the effort to get external funding (see also E1, below).

Recommendations

- Seminars could be organised into bundles, or “seminar days” on which people would be exempted from teaching and thus would have the opportunity to participate in several seminars within a more compact time period. This kind of organisation would also free researchers up for other activities in other parts of the semester. Joint organisation of such “seminar days” could possibly be more time-efficient and increase collaboration across Research Areas/subjects.
- In order to encourage interdisciplinary and large-scale collaborative projects, the faculty needs to facilitate the administrative burden associated with such projects. The inclusion of people from another department should be encouraged, and measures should be taken to change existing views that such inclusion

of outside researchers results in giving away money that belongs to people at the department. Interdisciplinary collaboration across the departments should rather be encouraged and the faculty could perhaps even offer some kind of seeding money for inter-departmental and/or inter-faculty collaboration.

- Initiatives coming from the Research Areas should continue to be supported as far as possible, and as soon as the budget situation allows for it, travel allowances should be granted again.

C1.2 Collaboration with external stakeholders

With a noted few exceptions (e.g., a workshop co-organised and co-funded by the Museum of World Culture, and a collaboration with schools in the framework of the Languages and Learning Research Area), there is little official collaboration between the department and external stakeholders. However, in the self-evaluation it is mentioned that the department “is aware of the increasing importance” of such collaboration and that there is already a project (MerSam) that aims to explore the potential of such cooperation. We also note that there may be more informal collaboration going on already, than what has been reported officially and that SPL perhaps does not make enough out of, e.g. ongoing collaboration with schools.

Recommendations

- SPL should make sure that they register and formalise their collaboration with outside stakeholders. Such collaboration is important, not only from the perspective of making research at SPL more visible outside academia, but also in view of the current financial situation. As soon as external stakeholders agree to conduct some activity together with SPL, there should be no administrative hurdles to prevent this from taking place.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- In our meetings with the SPL staff and PhD candidates, we did not regularly address the topic of the social relevance of the knowledge generated by research done at the department. Nevertheless, our conversations touched upon the issue every now and then, and our impression, corroborated also by the self-evaluation, is that both leadership and researchers at SPL seem to be aware in general of the social relevance and impact of what they are doing. In some cases, this relevance and this impact is more or less directly visible (as, for example, in the case of language learning). In other cases, where the impact is of a more indirect (albeit not less profound/long-term) nature, efforts to make this relevance and impact visible (like presentations at the Science Festival) are encouraged and supported.

Weaknesses

- Nevertheless, in cases where relevance and impact on society are not directly visible, efforts to underline the importance, long-term impact and, hence, neces-

sity of research in the respective disciplines still seem less than what one would or could wish for. The general emphasis on teaching rather than research tends to underestimate the societal importance of the latter in favour of the former.

Recommendations

- It seems that more reflection with regard to relevance and impact that are not directly visible could be fruitful, both on the side of the leadership and the researchers. One way of improving the visibility of this impact could be to increase the number of activities of the kind that are already practised (Science Festival, etc.). Given that we are living in the digital age, it is however still more important to improve visibility on the internet. Leadership and staff may also consider creating routines to ensure that the publication of a new book, the granting of funding to certain projects, the organisation of workshops or a conference etc., become topical in the media and are presented there with their relevance for society at large. The role of a public relations officer and a web designer are crucial in this respect. Initiatives like research-related Facebook groups, podcasts, etc. should be further encouraged and supported.

C2.2 Research relevance and impact on society

Strengths

- Arguably, the most important impact that research has on society at present is mediated by teaching: the students are an important part of society, and the research-based, and research-generated knowledge they take internally will contribute to shaping the future of our society. Seen from this perspective, an emphasis on teaching is without a doubt well motivated from the point of view of how research impacts society. Research activities that target collaboration with schools also have the potential to shape the role of language learning in the changing linguistic landscape of contemporary Sweden.
- Moreover, research on “exotic” subjects and languages at SPL/UGOT is of high value in its own right. This value is also especially appreciated by minority language communities that are represented in Swedish society (like Somali) and it can have long-term impact in a changing and increasingly multi-cultural and diverse society.
- Of equal importance is the fact that the role of academic writing and the socio-economic constraints that condition it are being discussed within one of the Research Areas, as there is not only an impact of research on society but also of society on research.

Weaknesses

- As already mentioned above (C2.1), the impact of research on language and literature is not communicated well enough to the outside, non-academic world, or to political decision-makers.

Recommendations

- All disciplines should be (further) encouraged to think about their role in socie-

ty. Efforts to improve the impact of initiatives to popularise research-generated knowledge should be supported whenever possible. The department should work towards gaining better visibility for research on language and literature, in order for it to become part of general public awareness.

- In order for teaching to fulfil its crucial role in the transmission of research-informed knowledge to society, it is important that researchers be granted the possibility to be up-to-date. An emphasis on teaching has to take into account the fact that all teaching is research-driven and that the quality of teaching is jeopardised unless teacher-researchers are given enough time to maintain and expand their knowledge base. In order to really embrace teaching as a way to channel insights from research to society, the department leadership should continue to explore ways of strengthening the link between teaching and research at all levels.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Although we did not have access to data regarding teaching, we have no reason to assume that teaching is not currently informed by up-to-date research. An especially effective link between frontline research and teaching can be found with courses taught by PhD students on subjects related to their own ongoing research.

Weaknesses

- Some staff expressed a concern that decreasing time for competence development and research may result in less up-to-date teaching and a weakened connection between research and teaching at the department.
- As stated, high-quality teaching is not only a matter of pedagogical competence, but also depends on the “freshness” of the topics that are taught. For the time being, teaching appears informed by recent research and the department should strive to keep it that way.
- At present, very slight attention is given to the possibility of students providing inspiration for research. If courses were developed by allowing students to contribute actively from a research perspective, this would be another venue for strengthening the link between teaching and research.

Recommendations

- We recommend that relevant staff at the department explore the possibility of making student attendance at seminars and workshops part of regular courses, wherever possible (MA-level and up). This could result in a win-win situation, where the seminars get higher attendance, while also the strengthening the link between research and teaching. Students would benefit from interacting with guest researchers by attending lectures/seminars while maintaining focused work on running course work.
- Permanent staff who apply for funding, and would see it as a chance to work

towards the application with the help of MA students, should be allowed to do so. The creation of courses with flexible, “empty” titles (such as “New Perspectives in ...”, etc.) would be a way of ensuring a measure of flexibility in creating such adapted courses on a relatively short notice.

- It goes without saying that research requiring a high degree of linguistic and other competence is not easy to link to teaching on BA level where students usually do not have the basic knowledge they would need to relate to research topics that are too specific. It could, however, also be seen as a positive challenge to turn their “ignorance” into a source from which research can benefit (e.g., with regard to plausibility of arguments, the appeal of research questions to a broader non-specialist public, etc.). Teachers should therefore not hesitate to present, wherever possible, their own research questions even to students on BA level. The enthusiasm conveyed by researchers who are “burning” for their research is usually also a factor that increases student motivation.

C3.2 Doctoral education

Strengths

- All of the doctoral candidates we met expressed their satisfaction with the doctoral education programme in general. The possibility of having two supervisors was particularly valued. The sheer number of PhD students means that this group forms a *miljö* in its own right, which is represented in the *institutions-rådet*. There is also the option to teach courses at PhD level. We view this as a positive since teaching experience is a valuable merit, which allows students to develop ideas and advance projects in collaboration with other students.

Weaknesses

- PhD positions are at times announced irrespective of the availability of matching supervisors so that a student, after acceptance in the programme, may be assigned a supervisor whose specialisation is not in the same field as the student’s PhD project. To some of the staff, the assignment process appeared non-transparent. At present, no explicit strategy for career guidance exists.
- We are concerned about the current hiring freeze on PhD positions. This situation can quickly develop into a downward spiral with fewer and fewer admission and a more strained economy as a result given the economic importance of successfully examined PhDs.
- We are also concerned about existing plans to group all PhDs together on a separate floor of the new building, see below (D.3). We don’t think this sounds like a good idea.

Recommendations

- The beneficial practices discussed under “strengths”, above, should be maintained. The department should work actively to cease the hiring freeze on PhD students. New PhD positions should be announced in consultation with representatives for the respective disciplines and should furthermore be made with the availability of suitable supervisors in mind. In order to connect new PhDs to

one or more of the cross-disciplinary Research Areas, it could be worthwhile to ask applicants for an announced PhD position to include in their application a short statement about the relevance of their planned research within the profile of one or more of the Research Areas (see above, B2).

- To enhance formalised career guidance the department may want to consider the pooling of resources for relevant PhD courses with other departments. In general, one should consider thinking about other research activities such as workshops or conferences in the department as well as other departments.
- We also recommend that the department think about the PhDs not only as a group in its own right, but as a part of the overall research environment. With this in mind, PhDs should be located together with their subjects or research groups rather than in a separate corridor (see also D3).

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- A great strength of the department is the seminar culture and the large number of seminar series mentioned above. This tradition of seminars gives ample opportunity for commenting on work in progress, inviting guest lecturers, and creating a sense of community. That some groups even podcast their seminars seem like a very good idea in order to get the most out of this activity.

Weaknesses

- A weakness of the many seminar series is that few people have the time to attend all of them and the respective seminars may end up competing with each other for the attention of departmental staff. Members of staff also report that there is little discussion of research outside the context of the seminars.
- Another weakness we notice is that there is no “culture for praise”. Achievements of research is not always celebrated, or put on display online or otherwise.

Recommendations

- It is important to keep the best part of the very strong seminar culture alive, but one should, as suggested above (see C1.1), consider more synergy and coordination between the seminar series and even cross-listing of individual seminars (having the same seminar announced within two different contexts). Likewise, “thinking smart” in combining seminars with PhD courses or even teaching should be considered, given the limited time for academic staff and the need for a greater audience. Taking environmental and financial issues into consideration, it would also be a good thing to maximise the presence of guest lecturers and external examiners etc. Whenever possible, such guests could be asked to contribute an additional activity to the purpose of their trip to Gothenburg. It might also be useful to vary the format to gather a critical mass for half-day workshops or even conferences from time to time.

- In relation to creating a climate for discussion centred around research, a suggestion would be to dedicate a special part of regular meetings in the subjects to research, or create something like a “Tuesday (or Wednesday, etc.) lunch with research” where current research issues can be presented and discussed informally. This slot could also be used for acknowledging research. The new web design should also make research output more visible. It would be a good thing if research output and externally funded projects were more clearly displayed on the webpages of the Research Areas and the subjects.

D2. Publication

D2.1 Publication strategy

Strengths

- SPL has no publication strategy document, but they aim for “peer-reviewed international publications of good standing”. This is a reasonable goal and the department also wisely emphasises that “international” in this context means more than publications in English. Just as relevant are publications in Spanish, French, German or other languages. The amount of Open Access (OA) publications is increasing.

Weaknesses

- There are still rather few OA publication channels available on a high international level. This is not a weakness on behalf of the department, but of the publishing world in general. The establishment of the *Kriterium* portal is a good measure and it is excellent to support this – not least due to the important task of maintaining Swedish as an academic language – but it is important that this does not turn researchers away from highly-regarded international publication channels.

Recommendations

- We recommend that the department leadership develop publication strategies and discuss publication channels in the annual development talks with staff. It might be useful to invite editors from leading journals to give a seminar on publications strategies, or use visiting scholars who are on editorial boards of international journals to give advice at seminars when they are in Gothenburg in other (related) business. The department should strive to ensure that Gothenburg publication series are OA, and continue to encourage the use of *Kriterium*.

D2.2 Analysis of bibliometric data

Strengths

- In making international comparisons in bibliometrics it is important to take into account heavy teaching loads. When taking this into account, the output is quite good (cf. D2.1) compared to, for instance, ILOS at the University of Oslo, which is both bigger and where senior lecturers and professors have 45% research time. We also think that book chapters in respected publication channels ought to be

valued higher, given the academic standing and distribution of these. The fact that they are not has consequences for the standing of the department in terms of publication output measurements.

Weaknesses

- While it is only natural that the majority of publications are on level 1 in the Norwegian system, it is worrying that there are quite a number of publications that do not count at all (17 in 2017). Some of these might be books and articles in pop-academic journals/books with a wide dissemination outside academia and these are obviously important to maintain. However, non-widely distributed *Festschrifts* and more obscure local series might perhaps be disfavoured for dissemination channels with better visibility. We also note a decrease in the number of book publications, but not a corresponding increase in journal articles or book chapters.

Recommendations

- As long as the Norwegian publication system is used for political purposes, the strategy of the department should be to channel more of the publications in level 0 journals towards journals on level 1 and make sure that more relevant publication channels are listed in the Norwegian system (for level 1 channels this should be a rather easy process as long as the channels have peer review and good distribution). We understand that this is already a theme of the annual conversations with the leadership (that people report their publication channels to the Norwegian list and consider whether something is on the list before publication) and should continue to be so.

D3. Facilities and research infrastructure

Strengths

- Staff members seem happy with the available general facilities and the Centre for Digital Humanities.

Weaknesses

- The radical reduction of departmental libraries without a similar increase in the central library must be considered as a drawback in available resources. We note that this is a general trend across universities in Sweden and not something specific for the University of Gothenburg. Some pointed out a lack of equipment that may facilitate the conduction of, and participation in, workshops and conferences via Skype. Such equipment should be made available for both environmental and academic reasons. There is a plan to put all researchers in one corridor when the renovation of the department locales has finished. Judging from our talks with researchers and doctoral students, this seems to be a bad idea. It might lead to a further emphasis on what we see as an unhealthy divide between research and teaching. Instead, the PhDs and researchers should be integrated into the different subjects so that the research environments can blossom as well as foster the connection between teaching and research (cf. C.3.2).

Recommendations

- The department should continue to ensure access to well-equipped libraries and a functioning library system. It should continue to improve access to, and use of, equipment that facilitates participation in workshops/conferences via Skype or similar platforms (e.g. ZOOM). The department should also consider the consequences of grouping staff in particular configurations once the renovations of the department facilities are finished, in order to ensure an accessible and collaborative atmosphere at the department.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- This is one of the areas where SPL has an action plan. Apart from an unclear asymmetry in the distribution of block grants (see below), we found no indications of gender bias or other kinds of discrimination in the material we have been given, or in the interviews.

Weaknesses

- We observed some gender imbalances regarding the block grants for research for senior lecturers. These are divided into 25% for men and 12.8% for women according to the numbers provided. This imbalance in research time between men and women may be contrasted to a lower percentage of external/other funding for men when compared to women (since 2015). The productivity is also higher for women (Table 5, Publication output). It is unclear what produces this imbalance and people at the department were unaware of this. A similar pattern can be observed for professors and lecturers (17% vs 0%) although there is a higher level of external funding for male lecturers, which may go some way to explaining the observed difference.

Recommendations

- The department should look into the distribution of block grants with respect to the apparent imbalance mentioned above.
- As a marginal note, we may add that equal opportunities are not only a question of gender equality. Other forms of discrimination and/or harassment, not mentioned in the RED19 form, (against handicapped/disabled, non-native ethnic groups, sexual minorities, etc.), should be considered in an equality perspective. We were therefore happy to see that this is part of the department's policy for equal treatment (linked to in the self-evaluation) and also assume that these other forms of discrimination will continue to be taken into account in this spirit.

D4.2 Internationalisation

Strengths

- All job calls are internationally disseminated and most of the staff consider themselves to be part of the global academic community. We view it as a strength

that PhD students often have international secondary supervisors. It is important to maintain special funds for inviting international guest lecturers, although these should be weighed against other initiatives, such as sabbaticals spent abroad (see below).

- Given reduced staff mobility due to budget restrictions and heavy teaching loads, it is good to see that some researchers have come up with creative solutions to reach the outside academic world by means of e.g. podcasting.

Weaknesses

- Cutting travel grants is obviously not conducive to international collaboration. Likewise, predictable possibilities for sabbaticals spent abroad are lacking, though it is positive that this is something the department is working towards amending. Organising international conferences is an efficient means of increasing international visibility within the research community. The panel does not have a complete overview of the department's activities in this respect, but we have the impression that this is not a strength.
- Furthermore, in order to take advantage of the international perspectives brought in by international staff, it is crucial that sufficient measures be taken to integrate them in the day-to-day running of the department. Here, language is essential. The international recruits report that the Swedish language courses offered are so far rather inadequate.

Recommendations

- Once the department or the faculty secures funding for sabbaticals, priority should be given to people who spend these at international institutions.
- The university should work towards expanding and/or improving Swedish courses for international recruits. The department should also try to give newly-hired staff sufficient time to take these courses, early on. This might seem to be a luxury in a pressed situation, but for the integration of international perspectives in the day-to-day life of the department, and the research community, this is absolutely crucial.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Staff members at the department generally appear appreciative of the willingness by the department leadership to support research (though some still feel that research continues to be regarded as a luxury, as under the previous leadership). This support is most clearly visible in the Research Areas and in initiatives to free time for writing applications. The department leadership regards external funding as an important component of maintaining high-level research at the department.

Weaknesses

- There are several problems associated with internal research support at SPL. The most conspicuous problem is the economic situation which is clearly in the red. Overheads also appear to be quite high. Overheads exceed personal costs and constitute almost half of the expenses for teaching and a third of the expenses for research, according to the provided numbers. This has some unwanted effects for securing external funding. In the case of VR, an application quickly becomes expensive when overheads are high, thereby limiting the running time of a proposed project (maybe three years instead of four). For other funding bodies (RJ and the Marcus and Amalia Wallenberg Foundation, MAW) who do not cover overhead costs in the same way, this becomes a financial burden for the faculty, and by extension, for the department, when accepting to host research grants without covered overheads.
- The almost singular focus on the Research Areas and their respective seminar series may also be viewed as an obstacle to more dynamic initiatives that would result in other collaborations and research activities. The department's choice to take away (due to the financial situation) travel support for conference and workshop attendance is counterproductive to supporting research internally, and so is taking away funds provided by block grants for research when an individual researcher has secured external funding. This may produce a low motivation for applying for such funding (see C1.1, above).

Recommendations

- Although a small gesture, we think it is important that financial support for travel to conferences be renewed in particular, as we all know that conference participation can be an important step towards international publication. The financial gains of taking away this support can hardly be justified compared to the disappointment sensed by individual researchers when this resource is taken away.
- Overhead costs should be reviewed to make sure that they are at an appropriate level. For SPL, the overheads seem excessive at present.
- We also encourage the department to find possible synergies and smart solutions to dynamic initiatives by researchers involved in one of the Research Areas. It is possible that complementary activities to the seminar series would result in new and productive collaborations.

E2. Faculty and University-wide support

Strengths

- The faculty supports research at SPL in the form of block grants for research. These funds are not structured beyond their stated purpose, but it is left to the department to allocate these as it sees fit. The university also provides assistance to individual researchers for applying for EU money, most notably ERC grants. The university leadership wishes UGOT to be driven by research and to be competitive in this regard, both nationally and internationally.

Weaknesses

- The biggest problem facing Humanities departments at UGOT is the economic realities produced by decreasing student numbers and (possibly) by organisational structures.

Recommendations

- It is essential to continue supporting a department such as SPL with block funding for research in the long term. It is also important to maintain support for ERC applications at the university level. The stated aim to remain an important research-driven university should be made even more explicit to the departments, and to the public, in order to attract students and collaborative partners of different kinds.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The RED10 report was particularly concerned with stabilising and maturing the organisation of SPL. It was also concerned with vacancies. In the final summary of recommendations for the department the RED10 report furthermore highlights three areas (p.58):

- The need for further strategic profiling and planning.
- Freeing unused research potential through the organisation of teaching and combining research and teaching.
- Encouragement of international publications.

The department seems to have taken all these considerations into account and is aware of them in its self-evaluation. The bibliometric analysis and success rate in grant capture suggest that the department is going in the right direction regarding international dissemination of research. The vacancies which concerned RED10 seem to have been filled, but the recent deterioration of the economic situation has created new ones. The department seems to be looking into ways of organising the teaching better in order to free time for research, and we hope that some of our suggestions might help them with this. In conclusion, the department seems to be working hard in all these areas. Where they seem to have done less is in the area of strategic planning and profiling. Most of their strategic documents are of a very generic nature. Likewise, hiring policies seem to be based on status quo and not on any sense of direction or idea of building particular strengths. This might be a deliberate policy, but in the current climate it might lead to more haphazard decisions and a less transparent general policy.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

The most important thing for the department at present, is to ensure that the current economic deficit is turned around. The economy of the department must be stabilised; all research-related activity depends on it. The current economic situation is not unique to SPL, but plagues Humanities departments everywhere. We encourage the faculty and university leadership to do their utmost to facilitate a stable economy for departments such as SPL.

A crucial feature of the department that has important consequences from a research perspective, is that it is primarily driven by teaching, as this is where most of the funding comes from. It is important for the university as a whole to acknowledge this in its strategic planning and to be clear about these priorities from the start.

We note the absence of explicit strategic discussions of profiling and hiring of staff informed by research objectives. RED10 noted that “*the department needs to pursue the innovative approaches that have already been undertaken and develop a strategic plan for the future*” (p.58). We can only repeat that recommendation. From our perspective, it is crucial to develop strategic planning and to let these be informed by discussions with staff at the department, particularly in a dire economic situation such as the present one.

Compared to other Scandinavian countries, there is very little time allocated for research and this has to be considered in any benchmarking exercise and it must temper expectations for faculty performance with respect to research. It is incredibly hard to get much out of a 10% research quota (half a day a week). If UGOT wants to be a premier league *research* university, more time has to be dedicated to research across the board. The corresponding *arbetstidsavtalet* (which, as we were told, was designed some twenty years ago) seems to be dated and in need of a revision in the light of international practice.

Many of our suggestions in this report are based around “thinking smarter” and exploiting synergies – something which should be welcome in a situation with limited resources both with respect to time and finances. We propose that the following recommendations should be considered.

- “Think smart” about the teaching-research nexus. Organising teaching in clusters, giving people the opportunity to teach more one term and less during another. Try to combine teaching and research and encourage initiatives that have been successful. For instance, giving people free time for writing proposals is not necessarily the only possibility of preparing a good grant proposal. One could consider giving promising applicants an MA course close to the topic of their application where they can get the reading done and test some of their hypotheses. In order to reduce the administrative burden and to avoid having to make new courses, thereby increasing the course portfolio at the department,

we suggest having open or generic courses along the lines of “Recent trends in ...” or “*Forskningsmässiga fördjupningsområden*”. This would promote flexibility and the shaping of courses to fit research objectives at a short notice.

- “Think synergy” between seminar series and between PhD education and research workshops/seminars. Cross-listing of events should be considered.
- Make research more visible to the public: increase outreach activities, seek collaboration with external stakeholders, and improve visibility on the web. In the long run, good publicity can attract more students and influence political decision-makers – the two main factors that may secure sufficient regular funding.
- Try to integrate the PhDs even better in the research environment. Give PhD students responsibility and make them participate in academic workshops; this is important for their future careers, their merits list (CV), and may also be fruitful for the department. Try to link them to ongoing research in the department already in the hiring process.
- Have an even stronger emphasis on communication of policies with staff and as a part of this be more explicit about the rationale behind the policies in question. In communication on for example the allocation of research time for people with external funding it is crucial that the reason behind this policy is clearly stated in order not to take away people’s motivation.

DEPARTMENT OF LITERATURE, HISTORY OF IDEAS, AND RELIGION

128	Introductory Remarks
128	Section A – Background and Research Standing
128	A1. Background
129	A2. Research standing
133	Section B – Leadership
133	B1. Leadership
134	B2. Recruitment
135	B3. Career structure
136	B4. Funding
136	B5. Feedback and evaluation
137	Section C – Complete Academic Environment
137	C1. Collaboration
138	C2. Relevance and impact on society
138	C3. Research-teaching linkages
139	Section D – Academic Culture
139	D1. Academic culture
140	D2. Publication
141	D3. Facilities and research infrastructure
141	D4. Transverse perspectives
142	Section E – Support
142	E1. Internal research support
142	E2. Faculty and University-wide support
143	Section F – Other Matters
143	F1. RED10 evaluation
143	F2. Other matters
143	Concluding Recommendations

INTRODUCTORY REMARKS

The panel has been provided with a written self-evaluation report and supplementary material by the Department of Literature, History of Ideas, and Religion (LIR). A number of questions were sent to the department and answered in writing prior to the panel's site visit. During the two-day visit (2nd–3rd April), the panel carried out interviews with the department's management group, representatives of the administrative staff, the heads of collegiate (*'ämnesordföranden'*), a number of professors, a group of postdocs and other junior scholars, a group of PhD students, and a group of students together with the associate head of education. Work on the panel report commenced during the site visit and was concluded on 24th April, 2019.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The overall impression is a well-working and ambitious department whose management is keen on creating a fruitful and manifold research environment. Regarding size, organisation and management structure, the department resembles similar institutions at other Swedish universities. The initial problems, which not seldom arise when smaller units are merged into larger departments, are experienced in this case, too, but there is also a consciousness that new, creative possibilities of cooperation arise, concerning both research and teaching. The thresholds between the disciplines at the department are experienced as low.

The self-evaluation of the department stated 'bottom-up' and loyalty among colleagues as basic principles or values, and the site visit has confirmed that these values are indeed highly respected among staff and students. The vast majority of the testimonies from the staff and the students were positive. The department is considered a good place of work, and a place where scholars can freely pursue their curiosity and ideas. Satisfaction is most pronounced among scholars with (nearly) sufficient time for research (professors, postdocs, PhD students), whereas senior lecturers feel the heavy teaching load as an impediment to research and development. Yet, there is a general acceptance that some limits are set by the present economic situation. At the same time, there is a readiness to understand that it may be an opportunity for change, since a new increase in the number of students is not to be expected.

The administration seems to be functioning well; its support is highly appreciated by the scholars, and both sides appear to be mutually satisfied with the division of responsibility.

A2. Research standing

Research at the department seems to do well, both nationally and internationally, within subjects that are the profile-areas of major disciplines. Visions, and especially strategies, for the future are weaker and less certain, but it must be kept in mind that the Swedish system of research funding, with its relatively small basic allocation, impedes long-term planning.

The situation for Theatre Studies and Digital Humanities seems unclear in the medium- or long-term perspective. Yet, regarding Digital Humanities, future development is beyond the department's control.

In the self-evaluation report, Digital Humanities is presented as one of five formal disciplines within the department, but in the section on research standing it is subsumed under Comparative Literature. This makes it impossible to evaluate the two disciplines separately. Moreover, the publication statistics from the Theatre Studies discipline are included in the data for Comparative Literature, so it is difficult to evaluate the performances of the respective disciplines. It has not been possible to have the information separated on request.

Research, research profiles, strategies and plans

Comparative Literature

Research groups and projects within Comparative Literature may be grouped in different ways, e.g. thematically, historically and according to media. No matter how, the resulting picture is variegated and reflects a multiplicity of methodological traditions: hermeneutics, biography, sociology of literature, gender studies, welfare studies, didactics, etc.

The digital medium or the computer plays a dominant role, since it is explored not only as a theme in literature and as a laboratory for new methods of investigation and presentation, but also functions as an important medium for publication of research. This is probably due to the fact that Digital Humanities has been subsumed under Comparative Literature in the self-evaluation.

In so far as the overall policy of the department is to support, not to direct research initiatives from individual scholars and research groups, the variety may be seen as an indication of the strategy's relevance.

Religious Studies and Theology (RST)

A basically classical organisation of Theology (Biblical Studies, History of Christianity incl. Practical Theology and Systematic Theology) is combined with classical fields of Religious Studies (Sociology and Psychology of Religion, Didactics of Religion and History of Religion). Diversity of research traditions is strong and fully justified, and it is said to be "cherished". *RST* aims at developing more joint programmes than are currently running. However, the picture of current research projects is quite variegated and not linked to the above-mentioned organisation of fields. It is not easy to get an overview of themes to which *RST* researchers will give

priority. Perhaps such an overview could be established through collegial discussion in order to strengthen *RST*'s research plans (which are in themselves relevant: more external funding, more collaborative projects, more international projects). Some aspects of *RST* are also covered by *History of Ideas and Science* (e.g. "Religion and Politics"). Substantial synergies are recognised by *History of Ideas and Science*. *RST* must be praised for its very high scholarly productivity (measured by bibliometrics).

History of Ideas and Science (HIS)

HIS has three strong research profiles: History of Political Ideas, History of Philosophy, and History of Science and Technology. Research in these areas are at the international frontier. *HIS* has a good level of scholarly productivity and is trying to balance the strong tradition of publishing monographs in Swedish with requirements for international publication. Collaboration projects with *RST* (e.g. Religion and Politics) could be reinforced.

Theatre Studies

The strongest research profile seems to be Gothenburg Theatre Studies, with a larger project and an individual dissertation project in Comparative Literature, but related to Theatre Studies. This profile is relevant for the Gothenburg region and to Swedish historiography.

Quality of the department's research from an international perspective within its field

The externally-funded part of the department's research income has increased from 2013 (SEK 6.1 million = 11%) to 2016 (SEK 9.3m = 18%), yet with a minor decrease from 2016 to 2017 (SEK 9.2m = 16,5 %). That is satisfactory.

Comparative Literature

Although the number of publications from Comparative Literature (including Theatre Studies and Digital Humanities) over the years 2010–18 is below that of both History of Ideas and (especially) Religious Studies and Theology, when compared to research Full Time Equivalent (FTEs) in the respective disciplines, the number is still satisfactory.

It should be added that bibliometrics measure productivity more than quality of research, however the scholars in this discipline have published in renowned international journals.

The number of publications on the Norwegian level 2 – which is only given for the department as a whole – is rather low.

Out of a total of 59 external research grants received by the department over the last five years, a vast majority (39) were received by Comparative Literature (including Digital Humanities). Some were minor grants, indeed, – 13 consisted of less than SEK 100,000 each – but nine grants consisted of more than SEK 1m each, and four

of SEK 2m or more. Out of the received sum total of SEK 52.2m, Comparative Literature with Digital Humanities received SEK 31m. This is very satisfactory. The quality of research, as far it can be assessed from the material provided, seems to be above average.

Religious Studies and Theology is an impressively productive unit (measured in number of publications over the years 2010–18, related to research FTEs) with a fine balance between publications in English and in Swedish and diversity in genres.

But when considering both the research issues and tradition of disciplines at RST, it is striking that there are almost no publications in other languages (two articles in French, no publications in German). In the self-evaluation, there is no reflection about the background for or possible consequences of publishing almost exclusively in only two languages.

The level of external funding at RST is average or below average in 2013–18 with only a few donations exceeding SEK1m (and with the exception of the cross-disciplinary Horizon 2020 award for PhD/'forskar-skola' activities).

History of Ideas and Science

From an international perspective the research in *HIS* has grown and is significantly stronger compared to RED10. Participation in international conferences and networks has increased through the period, as has the number of international publications. The productivity of *HIS* is above average in publication rate and external funding.

Theatre Studies

Student/teacher exchange is ongoing with the University of Plymouth, Silver Jubilee Campus in India, The Freedom Theatre in Palestine and the Academy of Performing Arts in Tel Aviv. Nothing is mentioned on internationalisation in research. There are not enough data available to grade the discipline according to average, below or above.

Current aspirations for new research initiatives

Comparative Literature

The emerging projects are clearly justified and reflect a well-developed sensitivity towards the present cultural and methodological trends, just as they show curiosity towards other disciplines. If one should be the Devil's advocate, one might ask: Who is, in a 'bottom-up' research culture, going to defend the tradition of the discipline in the future?

Religious Studies and Theology

Since the picture of current research projects is quite variegated, one could have hoped for more focused and coherent descriptions of future research, not only on the structural side (regular workshops, establishing of milieus across traditional

borders), but also content-wise, e.g. in relation to the traditional fields or as thematic clusters.

The new research initiatives described in the self-evaluation mostly concern the conditions of research (securing external funding, securing gender balance, securing internationalisation). They are all relevant and realistic goals. *RST* has a number of ongoing projects (some collaborative, some individual), some of which are also quite new. But *RST* has not, in the documentation material, presented a proper research strategy, either on a disciplinary or individual basis, which describes themes, research questions etc. As said above, this leaves one with a picture of research efforts as being perhaps more variegated than it needs or ought to be. Working more with research strategy might also be a way to respond to the special situation in which the department finds itself, with quite different fields and traditions, in order to be able to define and protect the identity of the disciplines in the future.

History of Ideas and Science

The new research initiatives are convincing and will surely further strengthen two of the profiles: History of Science and Technology, and History of Political Thought. Nothing is said in the self-evaluation about research initiatives for the third strong profile, History of Philosophy.

The department's aspirations and vision for the medium-term (5–10 years) future

The 5–10 years visions and expectations of the department mostly concern external funding and the hope to establish milieus across the traditional disciplinary borders. Those are relevant visions, but unfortunately, they are also less concrete than one could wish for.

Comparative Literature

It is difficult to assess whether the expectations briefly expressed in the self-evaluation are realistic.

Religious Studies and Theology has not, in the documentation material, presented its own 5–10 years plans.

History of Ideas and Science

When it comes to long-term visions, no clear strategy is presented. A possible collaboration, with substantial synergies, between *RST* (Religion and Politics) and *HIS* is mentioned. Since the relationship between religion and politics is a burning question today, developing such a research profile has potential and should be strongly encouraged.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- A clear aim is to create high-quality research by securing a maximum of scientific freedom for researchers, and to guarantee research leadership in line with international standards. Research is described as a bottom-up-process where leadership consists of creating the best prerequisites for the scholars to do their work.
- A higher research seminar for the whole department, which is much appreciated by the staff.
- The systematic approach to developing external applications: Two seminars are held every year on department level, where all external applications go through a public evaluation by internal peers. Postdocs and doctoral students participate.
- Administrative support for applications is engaged as early in the process as possible.
- Integration of master's level students in the identification process concerning upcoming projects.
- The support for professional language editing.
- A sum of SEK 10,000 is, on application, allocated to each research group in order to ensure that it can carry out some activities. If more money is needed, the groups must co-finance with the higher research seminar or apply for external funding.
- Everyone is expected to teach, which ensures tight bonds between research and education.

Weaknesses

- Uneven gender balance despite the JiGU initiatives.
- The department aims at “*skapa riktlinjer för längre sammanhållna forskningsperioder (sabbaticals)*”, but has not succeeded until now.
- The department mentions under “Weaknesses” its desire to increase the number of externally funded projects. The evaluation panel sees no reason not to do so, but cannot acknowledge that the rate at present is remarkably low. According to the statistics on financial data it was SEK 9.2m in 2017, i.e. 16.5% of the department's research income. In the preceding years, apart from 2016 (SEK 9.3m = 18 %), it was lower: SEK 6.1m = 11 % in 2013, SEK 6.2m = 12 % in 2014, and SEK 7.5m = 14.5 % in 2015. The tendency is thus increasing, and the panel sees no reason for dissatisfaction.

Recommendations

- Collegial rotation of administrative tasks is considered an important strategy for successful collegial leadership. The panel has not seen any negative consequences of the way this model is practiced, so we recommend that it is maintained.

- If possible within the faculty, the uneven distribution of research funding/time (10% / 20% / 35%) ought to be more strongly reconsidered than it is currently, in order to strengthen the research contribution of all faculty staff members.
- The chairs of collegiate should form a more formal college and meet once or twice per term to discuss issues of common interest. They could, for example, discuss patterns of publication, formulate a language policy, and establish criteria for the distribution of PhD positions among the disciplines. The Head of Department ought to use this college as an advisory board.
- We recommend that the efforts to create sabbaticals (“*sammanhållna forskningsperioder*”) be continued, but they should be supplemented by a consciousness, perhaps best built up in the individual systematic yearly appraisals (“*medarbetarsamtal*”), that it is a shared responsibility to secure periods of time for research.

B1.2 Faculty/University level leadership

Strengths

- Faculty funding for invited international guest researchers is a fine instrument.
- The support from the Grants and Innovation Office.
- It is beneficial that the basic funding from the faculty (10–35%, depending on position) is delegated to the department, where it may be redistributed.

Weaknesses

- Is there a communication gap between the faculty and department concerning the decision to discontinue two of the faculty’s three short-term networks (Medical Humanities and Environmental Humanities)? The department does not question the decision to discontinue the networks, but regrets that much of the work done was lost or made invisible, and should like to see a plan for securing the continuation of achieved competences and invested work after the end of short-term faculty funding.
- It is not clear to some of the key staff members where the policy for data management at the faculty is drawn up, so...

Recommendations

- ...this must be clarified. Perhaps a faculty-level infrastructure council should be formed.

B2. Recruitment

Strengths

- The department has initiated a more open recruiting process: international advertising and a limited use of substitute teachers. This, too, has resulted in a higher level of education among the teachers.

Weaknesses

- Due to promotions, no external recruitments of professors have been made.

The right to promotion, while creating career security, predictability and loyalty among current staff, is infelicitous, since it means that professorships are filled without competition. This is not only restrictive to mobility, but may also be an impediment to strategic planning of the distribution of professorships among the disciplines or subjects of the department. Furthermore, it risks the perception of a professorship being a personal reward for previous scholarly efforts and not as a platform for taking on new responsibilities in the relevant research field. All things considered, the personal right to promotion threatens to drain the environment of dynamics and to weaken the quality of research.

- There are few international staff members, most likely a consequence of the promotion system.
- The milieu of PhD students is thinned out by the absence of stipends in 2018–19 thereby putting the cambium of research at risk.

Recommendations

- External recruitment should not be made impossible by internal professor promotion, even if this may result in the individual right to seek promotion being cancelled. The department should produce a policy for professorships, which includes a decision on which subjects or disciplines must be covered by professors ('chairs'), and a minimum of professorships filled in competition. The panel acknowledges that such changes cannot be made without reconsidering the conditions for senior lecturers with only 10 % research time (in order to secure that these positions become internationally attractive). However, we recommend that initiatives be taken in order to reform the formula for distribution of research and teaching time in the long- or medium-term perspective.
- We strongly recommend that the department make PhD recruitment a high priority, so that new stipends may be announced immediately.
- An agreed-upon (parallel?) language policy, either at the faculty or university level, could support the international ambitions of the department without harming the obligation to teach and disseminate knowledge in Swedish (cf. "*Handlings- och verksamhetsplan 2018*", p. 14).

B3. Career structure

Strengths

- The department has the possibility of allocating extra research time to individuals who are about to finalise a research project or prepare an application for promotion (to docent or professor).
- Both formal and informal mentoring systems are said to exist at the department, but ...

Weaknesses

- ... neither the junior researchers nor the PhD students were conscious that there was a formal mentoring system.

- The didactic courses offered by the university ('PIL'-courses), which are mandatory for those who want to be promoted to 'docent', are described as irrelevant and a waste of time.

Recommendations

- The formal mentoring system should be communicated to younger staff in a more systematic and clear way.
- The department could, as a supplement to the mandatory PIL-courses, offer specialised courses in developing research projects and writing research applications.

B4. Funding

Strengths

- Although the main part of the research funding is distributed by the faculty, the department has been comparably successful over the last decade in obtaining external funding. See also B1.1.

Weaknesses

- N/A

Recommendations

- N/A

B5. Feedback and evaluation

Strengths

- Systematic yearly appraisals ("*medarbetarsamtal*") and salary discussions.

Weaknesses

- N/A

Recommendations

- Due to its diversity of disciplines, the department has not set one decisive policy on how to evaluate research and rank publications. We would encourage the department not to set a policy that would neglect the diversity of disciplines and the generally individualistic culture. Perhaps the satisfactory model is not to have *one* model.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The department acknowledges the need for international, as well as national and local, academic collaboration, in order to secure that its own relatively small milieus can produce high-quality research. Thus, collaboration is supported economically (conferences, travels, planning meetings, invitation of guests to discuss collaboration).

Weaknesses

- Collaboration with other research milieus within the University of Gothenburg is sometimes hampered by faculty boundaries (e.g. between LIR and IDPP).

Recommendations

- N/A

C1.2 Collaboration with external stakeholders

Strengths

- All scholars at the department are engaged in non-academic collaboration with libraries, churches, museums, schools, the annual book fair, media etc.
- Every autumn teachers of Religion and Literature/Swedish in the region are invited to take part in a day of lectures relating to ongoing research and matters of importance to school teachers.

Weaknesses

- N/A

Recommendations

- Time allocation for collaboration with external stakeholders has been discontinued and is included in time allocated for research. Since the department has a strong tradition of, and an ambition to further develop, a network of external contacts, it should try to produce a policy on collaborating with external stakeholders in order to support researchers in their planning.
- Researchers in *History of Ideas and Science* dealing with religion and politics could be invited to participate in the lecture-day for teachers.
- All engagements in non-academic collaborations (popular lectures, articles in newspapers, appearance in media etc.) should be clearly visualised in the “business plan” (*verksamhetsplan*) and get credit in salary discussions. As far as such work should be accounted for, it must be made visible in its own right and not sponge on research time.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- N/A

Weaknesses

- The department has no policy, but relies on the ‘automatic’ utilisation of its research in teaching, publishing and collaboration with non-academic external stakeholders.

Recommendations

- N/A

C2.2 Research relevance and impact on society

Strengths

- There are tight bonds between the department’s research and the public, in the shape of book publishing (in Swedish), articles in newspapers, appearances in the media and other forms of propagation aimed at schools, churches and cultural institutions. Moreover, the research is utilised directly in education and text books, and as reported by *Religious Studies*, is commissioned by the authorities.

Weaknesses

- N/A

Recommendations

- The department aims at attracting more external research funding. When writing applications, especially at the EU-level, researchers must have clear ideas about impact. The department seems to need to support researchers in focusing on impact.

C3. Research-teaching linkages

C3.1 Undergraduate and master’s education

Strengths

- Teaching at the department is clearly research-based, and it is relatively easy to carry out specialised courses, which attract only a few students.

Weaknesses

- N/A

Recommendations

- There are unused potentials to work the other way round, i.e. to base research on teaching and to integrate students in the research process.

- PhD students could present their research for undergraduate students once per term.

C3.2 Doctoral education

Strengths

- The department has maintained the old Humanities tradition, which emphasises independence for PhD students in research questions, completion and writing.
- The department has a long-term strategy to include more PhD students in future research applications.
- The supervising system is flexible: Each PhD student has two supervisors, and the cooperation between them seems to work well. Moreover, it is possible to change supervisor without trouble.
- Postdocs and PhD students can apply for internal funding to start seminars that serve their research interest.

Weaknesses

- It is not mandatory and also not common for PhD students to go abroad (or to another Swedish university) for a longer period during their education.

Recommendations

- We recommend the department to not give up the tradition of independence, but try to integrate it in, or balance it with, the long-term strategy concerning the integration of more PhD students in future research applications.
- PhD students should be strongly recommended or even urged to spend a longer period of time at another Swedish university or abroad during their education, and the department should support them in their efforts to obtain such research stays.
- We recommend that career guidance be offered to PhD students, be it at departmental or faculty level, or perhaps as a combination. The guidance should also involve advice on how to pursue a career outside of academia.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There are places for informal and social meetings at the department.
- The scholars have the liberty to work at home, if that is more convenient for them.
- A diverse, open and inclusive culture is nurtured and highly valued by the department, but ...

Weaknesses

- ... it is difficult to identify the concrete tools the department uses in order to secure this culture.
- Not all scholars have an office of their own.

Recommendations

- N/A

D2. Publication

D2.1 Publication strategy

Strengths

- A systematic follow up, on an annual basis, of publication strategies on department-, discipline- and individual levels.
- With an eye on the disciplinary and linguistic diversity of the department, it must be considered a strength that it does not have an overall, top-down publication strategy, but induces the scholars to be conscious in their choice of publication channels, cf. B5 above.
- Although the allocation system of the Faculty privileges publication of articles in international journals, the Department supports publication of both books and articles in Swedish, because the research results of the humanities are often directly relevant to a broad, domestic public. This is a wise strategy, which also contributes to safe-guarding the use of Swedish as an academic language and preventing its domain loss.

Weaknesses

- It is not clear whether researchers have (individual) publication strategies.

Recommendations

- We recommend that the department nurture a culture where publication in languages other than Swedish and English is recognised.

D2.2 Analysis of bibliometric data

Strengths

- A very productive department (the highest share of all departments in the faculty in the publication-based faculty allocation system).
- The department follows up immediately on changes – ups and downs – in publication rate. In most cases the changes seem to be explicable and justified.
- Awareness about gender-related differences (which then also turned out to be justifiable).
- Although the department supports Swedish as a language of publication, it also allocates SEK 100,000 per year for professional language editing of articles and book chapters (but why not monographs?) in foreign languages.

Weaknesses

- It is not clear whether the department is willing to more or less give up the valuable Humanities tradition of publishing monographs, cf. D3.
- As the department itself points out, more journals should be published in level 2-channels (p. 46).

Recommendations

- Other foreign languages than English should be considered as part of the department's publication strategy.
- One might consider adopting a twofold language strategy, not only in general, but concerning the individual article or book, i.e., encourage scholars to publish (the relevant parts of) their research both in Swedish and in English or German.

D3. Facilities and research infrastructure

Strengths

- The department hosts both the Centre for Digital Humanities and the Swedish Literature Bank.
- It has two series of peer-reviewed publications and one not peer-reviewed, and occasionally hosts ambulatory journals.
- The department's journals are intimately linked to basic education through the focus area "*Redaktionell praktik*".

Weaknesses

- N/A

Recommendations

- Even though the new master's programme in Digital Humanities is expected to build a bridge between the department and the Centre for Digital Humanities, the panel recommends that further efforts be made to integrate research at the department and the centre, where it is relevant, and thereby secure its continuation.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The department follows JiGU standards.
- The department is very conscious about the need to support equal opportunities and gender equality systematically, e.g. it commissioned the "*Arbetssituation och karriärvägar inom akademien*" report.

Weaknesses

- N/A

Recommendations

- N/A

D4.2 Internationalisation

Strengths

- The department is very conscious about the need to support internationalisation systematically, e.g. by providing support for ERC applications, and by having researchers join the ERC panels of experts.

Weaknesses

- The responses from the department concerning this question are confined to a purely economic perspective, i.e. external funding. The perspective could be extended.

Recommendations

- The department should, in as many ways as possible, support and strengthen the internationalisation of staff, cf. B.2 and C.3.2.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The department requires that administrative support be engaged in the early stages of planning an application for external funding.
- The department's administrative staff works effectively and flexibly together with the researchers.

Weaknesses

- N/A

Recommendations

- N/A

E2. Faculty and University-wide support

Strengths

- When it comes to ERC-applications, such as the Marie Curie-scholarships and similar, the department cooperates with the university's Grants and Innovation Office.

Weaknesses

- The department should like to receive better support from the Faculty of Arts and from the university concerning small-scale applications. A more active out-

reach programme from the Grants and Innovation Office would be appreciated. But the faculty management informs in their self-evaluation that the Faculty of Arts offers research support both to individual researchers and to departments, especially concerning applications. Is there a communication gap here?

Recommendations

- N/A

SECTION F – OTHER MATTERS

F1. RED10 evaluation

International collaborations and recruitment of staff has increased since RED10.

In the period 2010–18 eight postdocs have been recruited.

The department opposes the recommendation from RED10 to reduce the number of highly-specialised and under-staffed research groups, maintaining that scholars find their peers and research milieus outside the department as much as inside it. The panel agrees that research groups should not be judged just from the number of their members, but also from their ability to engage in fruitful cooperation with like-minded scholars abroad and at other Swedish universities.

The department has structures to ensure feedback and dissemination of best practice in research planning and applications. Especially one must emphasise the feedback given by the department when an application has been rejected without any constructive comments from the funder.

F2. Other matters

The completion of the new building to house the Faculty of Arts (“*Humanisten*”) seems generally to be anticipated with joy, but the hard fact is that the department’s rent costs will rise from approx. SEK 5.8 million to approx. SEK 12.2m. This will further strain its already negative economy.

CONCLUDING RECOMMENDATIONS

If possible within the faculty, the uneven distribution of research funding/time (10% / 20% / 35%) ought to be more strongly reconsidered than it is currently, in order to strengthen the research contribution of all faculty staff members.

The chairs of collegiate should form a more formal college and meet once or twice per term to discuss issues of common interest. The Head of Department ought to use this college as an advisory board.

We recommend that the efforts to create sabbaticals (“*sammanhållna forskningsperioder*”) be continued, but they should be supplemented by a consciousness,

perhaps best built up in the individual systematic yearly appraisals (“*medarbetarsamtal*”), that it is a shared responsibility to secure periods of time for research.

External recruitment should not be made impossible by internal professor promotion, even if this may result in the individual right to seek promotion being cancelled. The department should make up a policy for professorships, which includes a decision on which subjects or disciplines must be covered by professors (‘chairs’), and a minimum of professorships filled in competition. The panel acknowledges that such changes cannot be made without reconsidering the conditions of senior lecturers with only 10% research time (in order to secure that these positions become internationally attractive). However, we recommend that initiatives be taken in order to reform the formula for distribution of research and teaching time in the long- or medium-term perspective.

We strongly recommend that the department make PhD recruitment a high priority, so that new stipends can be announced immediately.

PhD students should be strongly recommended or even urged to spend a longer period of time at another Swedish university or abroad during their education, and the department should support them in their efforts to obtain such research stays.

Foreign languages other than English should be considered as part of the department’s publication strategy.

The department should, in as many ways as possible, support and strengthen the internationalisation of staff, cf. B.2 and C.3.2.

DEPARTMENT OF PHILOSOPHY, LINGUISTICS AND THEORY OF SCIENCE

146	Introductory Remarks
146	Section A – Background and Research Standing
146	A1. Background
148	A2. Research standing
151	Section B – Leadership
151	B1. Leadership
152	B2. Recruitment
153	B3. Career structure
154	B4. Funding
154	B5. Feedback and evaluation
155	Section C – Complete Academic Environment
155	C1. Collaboration
155	C2. Relevance and impact on society
155	C3. Research-teaching linkages
157	Section D – Academic Culture
157	D1. Academic culture
158	D2. Publication
158	D3. Facilities and research infrastructure
159	D4. Transverse perspectives
159	Section E – Support
159	E1. Internal research support
159	E2. Faculty and University-wide support
159	Section F – Other Matters
159	F1. RED10 evaluation
159	F2. Other matters
160	Concluding Recommendations

INTRODUCTORY REMARKS

The procedure for the preparation of this report was as follows. The Chair collected initial remarks from the panel members and integrated them into a preliminary draft, which was shared in advance of the site visit, and was used by the panel as a starting point for its work. The Chair conferred with the Associate Head of Department, Ragnar Francén, about the programme for the visit, the constellation of groups, etc. The programme for the visit was well devised, and all the details of the visit, including workspace, meals, transportation, etc. were exemplary in their planning and execution. Francén, who was responsible for the organisation of the assessment exercise at the department, is to be commended. At the conclusion of the site visit, the panel worked out a plan for the compilation and integration of the material that it had amassed, and collaborated (largely through email and collaborative authoring tools) on the final revision of the report. The panel's recommendations for follow-up activities are collected in the final section of this document.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department (FLoV) established a sub-division into three units in early 2018. Besides department-level administration, Philosophy and Philology form one unit, and Linguistics, Logic, and Theory of Science another one. These units do not feature very prominently in the self-evaluation, and the role of the heads of units appears very limited in terms of research development. Overall, the department has a highly structured management organisation, with a management team comprised of eight individuals; collectively, the team devotes at least three full-time equivalent person years (FTE) to department management. This does not include the administrative unit, which amounts to 12.5 FTE.

Weaknesses

What the organisational structure introduced in 2018 means in terms of creating synergies, cross-area collaborations and collective identity is not clear. While the three units seem to be primarily administrative entities, the structure beneath this reflects individual disciplines, comprising six or seven “research areas” (which are also presented as separate entities on the department's webpages, though the website is somewhat ambiguous as to whether Computational Linguistics is a research area of its own or part of Linguistics). Neither the department's self-evaluation nor the interviews gave a coherent picture of how much autonomy is delegated to the research areas. Nonetheless, the areas, as distinct from the “units”, are not purely artificial; they have historical precedence, and correspond to degree programmes, seminars, and so forth. Through discussion, it emerged that while they enjoy some sort of organisational presence (for instance, the doctoral students are part of discipline-based PhD programmes), their standing within the formal departmental organisational structure is insufficient. The research areas

seem to lack internal organisation, autonomy and a mechanism for participation in departmental decision-making. Further, there is a danger of a lack of communication or common cause between certain of the areas of the department: e.g. Computational Linguistics and History of Philosophy. The panel did not find much of a sense of departmental identity, and there is reason to ask whether the leadership is succeeding in the difficult (but arguably necessary) task of assuring that the department is united by a shared identity and purpose.

The background materials provided to the panel by the department in preparation for the site visit consisted largely of general data about the department, together with area-specific summaries (presumably authored by representatives from each area), rather than a unified effort to explain what the department as a coherent whole aims for in terms of research and teaching, and how these considerations have weighed into departmental choices regarding recruitment, course offerings, co-funding of research and so forth. As the department's self-evaluation acknowledges (in Sections B.4 and D2.2), the quantitative material provided is not really adequate for assessing the acquired advantages or disadvantages of the organisational form for the research areas and disciplines covered under the mantle of FLoV, since the information about quantitative data regarding publications, grants, doctoral degrees, etc. is not broken down by research areas. The self-evaluation indicates the intention to discuss the possibility of conducting a more fine-grained analysis, but the panel has not had access to such. As a consequence, the panel's evaluation of the research environment of the department reflects the nature of the documentation provided and the interviews at the site visit, both of which suggest that the current organisational structure and processes could be improved.

Strengths

That the department is heterogeneous is also, at least potentially, a strength, especially when lively and productive cross-connections are made across the department and beyond it. In that context, the panel appreciates the emphasis on organic and bottom-up growth, rather than research focus being "forced on the researcher from a top-down perspective". But there certainly is also room and a perceived need for middle-ground here: for example, facilitating projects across areas, making recruitments that can specifically encourage synergies, sharing discussion of the overall direction and purpose of the department, learning from one another's strengths, weaknesses and experiences. Based both on the self-evaluation and the site visit, it is unclear to the panel how the research culture of the department relates positively to the undoubted heterogeneity of the research groupings. If the department does not have a "*hands-on policy of deciding which research to promote*", how in practice is the coherence and shared intellectual culture of the department nurtured? Our suggestions as to how to make the most of the many strong research activities within FLoV are provided in the last section of the panel report.

A2. Research standing

The self-evaluation describes three very distinct high-profile research programmes at the department. Two of these ('The Centre for Linguistic Theory and Studies in Probability' and 'The Lund-Gothenburg Responsibility Project') have been created through major international recruitment grants from the Swedish Research Council, with extensive local co-funding from the University of Gothenburg (UGOT). A third group ('Representation and Reality') has repeatedly been successful in grant acquisition and appears to be working towards 'research centre' status.

These three projects all impinge on the modern world, in one way or another: one interprets the language of politics and the social and epistemological role of the dialogue; another studies the relationship between neurology and ethics; and the third, the R&R project, while the topic concerns the medieval reception of Aristotle's *Parva Naturalia*, it does so in light of contemporary ideas about sleep, dreams, sensation and intellection. Thus, if there is a leitmotif in the research of the department, it is the 'meta-' aspect of research (metaphysics, meta-ethics, meta-studies of citizen science), which looks for deeper causes and patterns behind the phenomena studied. A continued effort to use ongoing projects to bring research at the department under areas of shared thematic interest and enhance collaboration with other units within UGOT (such as the Centre for Ethics, Law and Mental Health's collaboration with the Medical Faculty) would seem to be the most promising way forward.

But a cohesive department with shared intellectual concerns is the best protection against the vicissitudes of grant capture and uncertain student enrolment. The vulnerabilities of one division at a certain point can be countervailed by the strengths of another. Thus, for instance, it would seem as if Linguistics is in dire need of at least one professor and PhD students; Professor Maurin's project in Theoretical Philosophy will come to an end in 2019; the recent attempt to recruit a new professor to Theory of Science appears to have been unsuccessful. Such temporary setbacks for highly successful research areas should be seen as matters concerning the whole of the department, and be dealt with as such.

While the areas have grown in terms of researchers, mostly with the aid of external funding, it is troubling that this does not seem to have translated into positive effects for student recruitment, for instance, in Logic, Philology, and to some degree also Computational Linguistics. Here there is room for some consideration as to how the department conceives of its main mission, in particular in terms of research-driven education, and how it can best be realised.

With regard to the subdivisions in which the research is conducted, it is hard to assess the research standing of these areas based on the self-evaluation and background material. However, the panel observes the following:

Linguistics and Computational Linguistics: There is limited discussion in the self-evaluation of new research initiatives in these fields. CLASP is a major accom-

plishment, of course, as well as a large investment both by the Swedish Research Council and by UGOT. It may be a bit too early still to ask whether CLASP is delivering on its mandate, as the centre has only really completed its formation in the course of 2018. CLASP is already internationally visible, and quite generally Computational Linguistics in Gothenburg has a strong tradition. With regard to Linguistics, there has been a downward trajectory of reduced staffing and only one PhD student at present. On this basis, the future plans would seem to concern meeting substantial challenges, rather than formulating aspirations. One might ask whether the growth of Computational Linguistics may have ‘crowded out’ (non-computational) Linguistics. Inasmuch as this might be happening, does the department embrace such a development and wish to consolidate, or should it counteract it? The self-evaluation mentions concern about phonetics and phonology disappearing when the remaining professor retires in 2020, and asserts that “recruitments are needed to keep the area at the department.” Is that a common goal for the department and/or the faculty, and if so, what are the pertinent considerations? Given that Computational Linguistics is strong today and generates growing societal interest, would it make sense to strengthen sub-disciplines in Linguistics that have the most direct points of contact, e.g. theoretical and formal morphology, syntax, and semantics?

The Theory of Science area is relatively small, for which reason it is a great misfortune for the group that the recruitment of a new professor in the field has apparently not come to fruition. The group consists of half a dozen active lecturers, mostly senior, of whom one is on long-term sick leave. There is also one researcher, a research assistant and four PhD candidates. The area has succeeded in developing a small number of core themes – especially around the study of citizen science and evidence-based practice. This allows for concentration of efforts resulting in effects disproportionate to the size of the area. In both specialisations, the group has attracted scholarly attention and has its own distinctive voice. A solid core of publications has emerged over recent years, with output spread across the members of the area. The research focus is strongly international and the group is very involved in international scholarly networks. On the whole, the research profile has achieved a standing well above average for comparable units.

Philosophy, both theoretical and practical, has been quite successful in grant capture, and, in the latter case, also in securing commissions both for consultancy and official reports, as well as for external teaching assignments. Taken together, the two areas appear well-staffed and well-funded, and produce research results published in highly-ranked journals. But the flagship of Theoretical Philosophy, the Metaphysics group, headed by the only full professor in the subject, consists mostly of fixed-term researchers whose positions are funded by the Swedish Foundation for Humanities and Social Sciences (RJ); this means that without support from the department, and despite the strong performance of Theoretical Philosophy in terms of prestigious publications, the loss of external funding would severely weaken research in this area. The Logic area seems comparatively smaller than other groups, but has been successful in terms of high-profile publications and

external funding. The connection between the disciplinary subject areas and the research areas and sub-groups is not entirely clear from the documentation provided nor from the site visit, and especially the relationship in terms of collaboration in teaching and research between the areas might be more distinct. If there is a concerted effort to maintain a coherent picture of Philosophy as a discipline, it did not emerge from the documentation nor from the interviews, which could be a problem further down the road in terms of student recruitment and retention. This could ultimately have consequences even for research, since block funding is tied to some extent to enrolment.

Strengths

Despite what appears to be a worrisome situation with regard to the coherence and cross-departmental cohesion of the organisational model, several of the research areas appear quite successful by standard measures (grant capture, publication in top-tier journals and participation in prestigious conferences, etc.) and, by these same measures, a few are outstanding. As a rule, there are different strengths in different divisions, programmes and research groups. Each has its own plan of research and networks of international collaboration, and in many cases quite effective ones. In this respect, it would be inadvisable for the department as a whole to have a rigid and standardised research strategy.

Weaknesses

The problem is that the current model may not be sustainable, since the present organisation gives the department something of the character of a ‘research hotel’, which attracts and hosts successful programmes and projects with generous terms (in particular, by co-funding and requiring little in the way of teaching or administration from the PIs). In the model now in place, the department seems to be somewhat divided into teaching staff, with limited room for research in their work, and research staff, who conduct little teaching. This is a worrisome development for the quality of instruction, while it also risks leading to a downward spiral for the research areas that are not currently well funded and whose very existence lies in student enrolment and retention. At the same time, there is also a risk that external funding drives the intellectual agenda for what research is conducted, and that research development and faculty recruitment are in effect outsourced to the research councils’ present-day policies, strategies and goals.

Recommendations

For the sake of institutional cohesion, there should be a greater effort to make the most of the heterogeneity of the various research orientations, and to provide a broad and lively intellectual environment for graduate students and faculty, for example in the form of regular departmental higher seminars. This work should be led by the Head of Department. In short, the panel would like to see the department make more use of its disciplinary heterogeneity. There need not be a conflict between clarity and agreement; the department can and perhaps should eschew a “*hands-on policy of deciding which research to promote*”, and at the same time work together to achieve some sort of coherence and shared intellectual culture.

The self-evaluation details organisational aims of the kind that any unit might formulate: to maintain and intensify the capacity to attract external funding and publish in top-tier journals. But these are presumably effects of a fruitful research environment, not ends in themselves. One way of achieving a shared departmental mission would be to identify and formulate the aims of research conducted at the department in terms of the kinds of questions or problems that are to be solved, and how each area can contribute to the project so formulated. This could be the basis for a long-term vision for the future. In section D2.2 of the self-evaluation, the reasonable point is made that benchmarking with the University of Oslo is not appropriate given the profile and scale of the two institutions. But with whom or what does the department compare itself? Even if the areas within the department have different cultures and ambitions regarding such things as publication strategies, which the management with good reason wishes to respect, discussions about how these different strategies and cultures can contribute in various ways to a unified vision of what FLoV is or ought to be, need not interfere with the academic autonomy of the disciplines.

This issue is connected, among other matters, to the very important question of the relationship between teaching and research. Declining student enrolment is a serious threat to many disciplines and departments everywhere, but in the humanities the situation has become acute. There was very little in the self-evaluation or in the on-site discussions concerning how the success in grant capture and publication strategies can or should be reflected in new research-based educational programmes, or in revamping established ones. Put strongly, the consequences of the department being, at least potentially, transformed into a kind of research institute dependent largely on external funding rather than a research-based educational programme, and what that means for the point and purpose of the disciplines involved, should be explored.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Weaknesses

- Several of the interviews indicated a lack of transparency and limited sense of involvement in strategic decision-making. It is likely that this is as frustrating for departmental managers as it is for academic staff. Here, the panel can only report on what it was told during its visit. For example, the group of professors interviewed gave the panel an impression of hardly being engaged in the preparation of the RED19 self-evaluation. They also seemed to suggest that the interview with the panel was the first time that they had met as a group, and that more meetings between them of this kind would be useful. Several professors and (senior) lecturers appeared doubtful that their research areas were getting

‘their fair share’, for example, when internally-funded doctoral fellowships are awarded or newly tenured faculty are recruited, and they expressed uncertainty about how best to make their needs heard. It is not clear to the panel that the recent sub-division of the department into two scientific ‘units’ (plus an administrative one) is widely perceived as beneficial. Several (though not all) interviewees expressed a desire for management structures that are more closely aligned with meaningful sub-divisions, i.e. the individual research areas (or ‘subjects’) at the department.

Strengths

- It was clear from the site visit that the department leadership is consistently striving to improve the difficult situation that arose out of the department mergers and the past history of improper in-house recruitments and appointments. As is also the case in many other departments in the Faculty of Arts, it is clear that the process of consolidation is not yet completed. In certain respects, FLoV has been successful, most notably, one should mention the praise given by the PhD students during our visit for the support and guidance they receive from the Head of Graduate Studies.

B1.2 Faculty/University level leadership

As regards ‘upper-level’ leadership beyond the department, it appears that there are some challenges in interactions with the faculty. The self-evaluation suggests that the department finds it difficult to make its needs heard by the faculty. The self-evaluation expresses a specific concern that the current allocation model at the faculty lacks predictability regarding results-based co-funding over time, and a worry that the faculty may revise their allocation model to make it less directly reflect department-level performance indicators. The faculty is currently working on a new model, but the panel has not seen any signs from the faculty that there will be a move away from performance-based allocation.

B2. Recruitment

The panel was presented with evidence of recruitment difficulties, both for senior and junior positions.

Weaknesses

- In general, recruitment processes appear to be slow and inflexible, which seems at least in part due to university or faculty regulations. Multiple interviewees expressed concern that these processes inhibit the hiring of the most qualified applicants. Another concern regarding recruitment relates to transparency and involvement of the research areas affected in the process. At the site visit, the panel learned, for instance, that the appointment of a new professor had stalled in Theory of Science, without the senior staff from these research areas interviewed by the panel being aware of the inflection point in the process. While concerns regarding conflict of interest surely played a part in certain people not being informed, overall the panel had the impression that the transparency and communication regarding the process could have been better. Conversely, a

search for two to three faculty positions in Practical Philosophy in 2016–2017 has resulted in the appointment of six new lecturers, of whom three were already employed at the department. Senior staff from other research areas expressed concern that these appointments may have been made at the expense of their areas, and that the decision-making process involved in the recruitments was insufficiently communicated. Regardless of whether these concerns are justified, the fact that staff members expressed worry in this respect is a problem in itself.

- The panel further notes that a large proportion of senior staff at the department appear to have received their training at the University of Gothenburg. All this suggests that while the recruitment of new staff has in the last five years made some strides in reaching out to, and attracting, a broader pool of potential applicants, the department might want to double its efforts in this regard so as to avoid what might be termed ‘localism’. For instance, if a position is announced in an area, the preponderance of applicants with PhDs from the department might be considered a reason not to hire six at one go. There may also be a mismatch between the wide range of subjects studied at a very advanced research level in the research projects, and the rather traditional range of subjects for which university teachers were recruited. It was pointed out, for example, that there were at least two expert postdoctoral researchers (*forskarassistent*) with fixed-term contracts in Arabic Philosophy attached to one research area, but no immediate possibility of establishing a teaching position in Arabic Philosophy (in spite of the lack of teaching in this subject in all Swedish universities at present). Admittedly, a research position cannot immediately be turned into a teaching position (one would have to go through the requisite recruitment procedure), but the discrepancy between the profile of current research projects and the research pursued by teachers (in the absence of much research time), as indicated earlier, is not well-aligned with the aim of providing research-based teaching.

B3. Career structure

Weaknesses

- As mentioned in the Background section, there is a clear tendency for polarisation between research and teaching. Within the current departmental culture, combining or transferring between roles, such that staff are equally engaged in both, appears to be more the exception than the rule.

Strengths

- While the possibility for personal promotion risks encouraging institutional homogeneity and lack of mobility, it can also have the opposite effect to the extent that promoted professors have the time and security to invest in new projects and initiatives. This seems to be the case at FLoV in a number of instances, where promoted professors have been highly successful in ventures at grant capture and establishing prominent national and international networks.

B4. Funding

Several of the interviewees expressed concern about the financial standing of the department, even though department management appears to consider the budget situation in recent years healthy. This misconception among at least some staff may be related to the stark imbalance in external grant acquisition: some (senior) lecturers without current access to third-party research funding consider themselves “naked” and lacking protection, whereas some holders of larger grants described the department as “very generous” towards them.

Weaknesses

- The dependence on external funding, as noted already, leads to great fluctuations of personnel within each area, and funded projects (worthy though they are) tend to take centre-stage in the department’s research, rather than the long-term research of tenured professors who have been given the opportunity, through teaching and research, to become eminent figures in the academic profile of the university.

Strengths

- There are several areas that have had notable success in grant acquisition, and the department is seen as a good host for large research projects.

B5. Feedback and evaluation

The panel is not sure how to assess the performance review system. It was not entirely clear how it is applied and how often. Is this coordinated across units and research areas? How in particular are expectations on staff balanced across the department? There is an absence in the self-evaluation of a deeper consideration of the strengths and weaknesses of current procedures.

What form does the “*annual follow-up on publications registered in GUP*” take? Without aggregate statistics at the level of research areas, it would appear difficult to provide individual feedback. This issue seems to be related to the discussion of result-based allocations of individual research time (in addition to the basic allocations for each type of position). How does the department assess performance, and to what ends? Is it used to incentivise individuals through reward (and punishment) or to strengthen areas/groups or the department as whole? How much thought has been given to the problems associated with the effects of the Matthew Principle on academic environments, i.e. that funding tends to ‘pile up’ rather than get put to use, while staff who are less successful at grant capture effectively lose ties to research due to heavy teaching loads, thus also undermining the quality of the educational programmes?

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

There seems to be a very vigorous cooperation between Theory of Science and STS in the Sociology Department, and between the Sahlgrenska Academy and the department. Some departmental faculty also teach PhD students at Chalmers University of Technology. The Liberal Arts BA brings together teachers across the university, which is an excellent thing. Linguistics courses are shared with the Department of Swedish and Lund University. An example of international research collaboration is the newly-launched project between the department (Christina Thomsen Thörnquist, History of Philosophy) and the universities of Geneva and Lille.

C1.2 Collaboration with external stakeholders

Strengths

A number of positive activities are currently taking place at a practical level. Relevance and impact on society appear to be the guiding principles in several of the projects pursued in the department. Some projects (especially in Linguistics, Practical Philosophy and Theory of Science) require fieldwork in society. There is some revenue from government commissions (Christian Munthe, Practical Philosophy). The interesting topic of ‘citizen science’ directly addresses the question of how the ordinary citizen builds up knowledge and makes judgments about which forms of knowledge are most ‘relevant’ to everyday life. Across the Theory of Science area, questions of research relevance and impact provide an active focus of attention and an object of empirical investigation. The outreach from the department includes ethics training for health professionals, and the understanding of the thought-processes of schizophrenics.

C2. Relevance and impact on society

Strengths

The existence of a strong research area in Practical Philosophy, practically-oriented linguistics and Theory of Science suggests that the department can pride itself more than most departments in the humanities in having direct impact on society (e.g. the MAs in citizen science/communications and in evidence-based practice).

C3. Research-teaching linkages

C3.1 Undergraduate and master’s education

This section of the self-evaluation is notably under-developed, a lack in background that was not entirely remedied by the site visit. As indicated in our earlier remarks, there appears to be insufficient reflection on how research and teaching fit together. If there is, for instance, a shortage of undergraduate students in Linguistics or

Philosophy, what are the consequences for research development in the long run? It is difficult to interpret the statement in C3.1: “*The department is working for a model for allocation of education funding that allows the department to start and run educations within the areas where we have research.*” If the department wishes to avoid creating and dissolving educational programmes depending upon which trends are strongest in research funding, which would mean that the programmes offered could in principle change every few years, the implication is that the current lack of unity between departmental research and teaching should be addressed as a matter of priority.

Weaknesses

- Several of the interviews left the panel with the impression that teaching and research are seen by many as being in opposition to each other, rather than as productive linkages. Some lecturers report that teaching loads together with administrative duties take up the vast majority of their work time, whereas others do not teach at all (the panel does not consider doctoral supervision as part of teaching). There was a perception by several interviewees that good teaching was not sufficiently valued and did not count towards qualifying to do research, or at least, towards having a sabbatical term in which to prepare a research grant application.
- In terms of organisational support, several teachers remarked that teaching and exam schedules often become available late.
- Finally, the topics of some of the master’s programmes listed seem rather narrow (‘evidence basing’ and ‘logic’) and imply specialist courses which, indeed, would be appropriately taught by someone doing research in these specialties. Such specialised MA programmes would seem to deliver on research-based education insofar as the specialists present at the department get to teach (few students) on their favourite subjects. In this respect, it is clearly not a weakness. But this kind of specialisation at the MA level can inhibit enrolment, which, given the problems that the department has in this regard, would seem to be a problematic strategy. Further, it is difficult to see how this solution addresses the broader problem of the lack of interaction between research agendas for many members of the permanent staff. Moreover, if current research agendas are allowed to have such an influence on departmental budgetary planning as they do, there is a risk that they will eventually determine which MA programmes are offered by the department, since the decision about what research is conducted will have an effect on what staffing is possible; in short, recruitment decisions will be delegated to the research councils (which research projects they choose to support), rather than determined by the department on the basis of what it sees as relevant for students and (permanent) staff. A department as eclectic as FLoV ought to be able to offer MA programmes that include both highly-specialised courses and ones of broader interest. While FLoV does offer discipline-based MA programmes alongside specialised courses, the department might consider even broader ones, in which the range of subject matters found at the department is more fully represented.

Strengths

- While highly specialised courses taught by experts in the field should not be the mainstay of the MA programme, it is of course a sign of high-quality research that they can be offered to the extent that they are.

C3.2 Doctoral education

The panel conducted an anonymous, quantitative evaluation with the selection of doctoral students it met. On a ‘satisfaction’ scale ranging from 0 (low) to 5 (high), two to three aspects of the work environment for doctoral students were identified that leave room for improvement:

Quality of Supervision	3.6
Quality of Research Environment	2.9
Quality of Available Coursework	2.3
Fairness and Transparency of Teaching Duties	2.6
Overall Organisational Support	3.9

Several doctoral fellows consider their academic environment as insufficiently stimulating and report that area-specific research seminars struggle to engage a large enough proportion of (tenured) staff; similarly, several doctoral fellows find it challenging to satisfy their 60-ECTS requirement for coursework at the department, because very few graduate-level courses are offered. Finally, a large proportion of the doctoral fellows interviewed perceive the routines for allocation and accounting of teaching duties (which translate into contract extensions) as lacking in transparency and fairness. Some of the hourly ‘credits’ quoted to the panel do indeed seem low for the type and scale of teaching described by the interviewees, especially when taking into account that doctoral fellows still need to acquire and refine their teaching skills while ‘on the job’. Some PhD students gave the impression that they felt pressured into doing more teaching hours than they thought reasonable.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Overall, the interviews left the panel concerned about the academic culture of the department.

Weaknesses

- Multiple groups of staff characterised the working environment as ‘every man for himself’. The panel witnessed varying degrees of reduced staff morale, emotional stress and frustration, and animosity towards other staff (including management) in many of the groups interviewed – to an extent that likely indicates structural problems rather than individual ones. Collegial structures and certain working relations appear weak at the department.

- The self-evaluation (as the perspective largely of department management) gives the impression that there is a fairly clear assumption of performance-oriented management down to the level of individual researchers. Inasmuch as this is indeed the case at the department, consensus and transparency about evaluation criteria and an overall perceived sense of fairness would be prerequisites to maintaining a good balance between ambition and collegiality. Quantitative performance indicators (e.g. publications, grant capture, and completed degrees) can be important elements in this scheme, but should not constitute the whole. Also, as noted previously, the department seems to be lacking sound statistical data at relevant levels, viz. individual research areas.
- There was little reference in the self-evaluation to the annual work environment survey, and it was not mentioned in any of the interviews.

Strengths

- It cannot be emphasised enough that at the level of particular research areas, there is a strong sense of mutual interest, engagement and respect, and most doctoral students were quite satisfied with their supervisors. In short, there are several thriving academic ‘sub-cultures’.

D2. Publication

D2.1 Publication strategy

Due to the heterogeneous nature of the department, it is inadvisable that the department adopt a singular, prescriptive publication strategy, which would only weaken the strengths of the sub-disciplines. As far as the panel could tell by the information provided, the research areas seem to know best which venues are most appropriate for the dissemination of their work, and see to it to publish in these.

D2.2 Analysis of bibliometric data

The preparation of key statistics provided, notably bibliometric data, were simply insufficient for the panel to find useful. The panel concurs with the department about the need for breaking down result indicators to the level of individual research areas and the overall lack of comparability to other departments without access to at least corresponding staff data. On the other hand, quantifying research output is a problematic area, especially at the level of the individual researcher. This is especially true in more humanistic disciplines. A reasonable assessment would also require a qualitative description and appraisal, in a narrative form, of the value of the individual’s research. The publication of a substantial monograph should be acknowledged, but so should seminal articles in a specialised field, as well as articles contributing to the establishment of new fields of inquiry, etc. To evaluate the research at the department, the panel would have been helped by the mention of important publications resulting from the projects, research areas or from individual scholars.

D3. Facilities and research infrastructure

As the department will be moving shortly to new facilities, there is no reason to comment on the current ones. Suffice it to say that moving together physically will

bring great opportunities and expected benefits for moving together academically (see our recommendation below).

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

There was a marked predominance of male senior staff among the interviewees met by the panel, especially in Practical Philosophy, Theory of Science and Computational Linguistics. There are historical and sociological reasons for this, but the issue will need to be addressed.

D4.2 Internationalisation

Some of the interviewees, including several international recruits, indicated a deficit in easily accessible high-level information about services and procedures at the department. There were complaints made to the panel suggesting that ‘new-hire orientation’ was largely left to supervisors or project managers, leading to imbalances in the quality of information provided to incoming staff. However, the panel has been informed that the introduction of new recruitments is now delegated to unit heads according to a specified routine.

SECTION E – SUPPORT

E1. Internal research support

As previously stated, PhD students were on the whole quite satisfied with the support of their supervisors, and with the overall supervision and management of the PhD programme.

E2. Faculty and University-wide support

As noted, the department indicated problems in communication with the faculty, but as these were not described in any detail, the panel cannot offer any concrete advice as to how the issue should be addressed.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

FLoV was first established as a department on 1 January 2009, for which reason RED10 is of limited relevance for this report. The department appears to have successfully addressed two key RED10 recommendations (increased publication in international, peer-reviewed channels and increased effort towards external research funding), possibly to a degree that has challenged traditional collegial structures and the tight integration of teaching and research activities.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

The RED19 panel recommends that consideration be given to the following points regarding the future development of FLoV:

- Given that a number of serious concerns were raised during our visit with regard to the current functioning of the department, it is important that there be a period of open exchange and critical reflection within the department concerning its future organisation, internal communications, and mode of operation. The panel hopes that this report will prove useful in stimulating such a period of reflection.
- This period of critical and open dialogue might also be facilitated by the creation of some kind of task force with a remit to examine current organisational processes and create a shared basis for future operation.
- Such a task force could consist of colleagues across the department at different career levels but also of a handful of individuals outside the department who may have relevant experience to offer. There could be some advantages in the task force Chair being a trusted and experienced person from outside the department (or even outside the university).
- There may be a need for the creation of new collegial fora, which could make a closer connection between disciplinary groupings and the line management system.
- Particular comments about staff morale and stress were expressed to the panel during its meetings. A specific process should be established to assist individuals requiring help and support. The annual work environment survey should perhaps be given a more prominent position within departmental discussions.
- There is a need for re-appraisal of the unit structure in order to better align constituent groupings with the organisational form and strengthen internal organisation, autonomy, and participation of research areas.
- Greater and more explicit financial support is needed for teaching and research initiatives that currently do not (yet) receive extra-departmental funding. For instance, the mechanisms for utilising faculty and department co-funding could be adjusted in order to provide support for new initiatives more broadly (i.e. some kind of overhead 'taxation' system and 'redistribution of wealth').
- The department should consider the relationship between current research and teaching allocations (which seem to vary substantially between individuals) and the University policy on directly linking research and education.
- There should be a clear mid- to long-term plan for the allocation of future academic positions. This should be collectively developed, transparently expressed and clearly justified.
- Current guidelines on the use of buy-out within the department covering the circumstances when buy-out is (or is not) possible and the maximum percentage of buy-out that can be claimed are apparently not as well understood by the staff as they could be. More work needs to be done on the formulation and dissemination of the guidelines, which would likely accrue an increased level of legitimacy if the revisions were considered in a collegial organ.

- The relationship between the strong individual incentive towards external funding and the overall research direction of the department should be addressed. To a considerable degree, the requirement to seek externally-funded buy-out is effectively driving the department's research strategy and this may have problematic consequences.
- The role of, especially, professors within the department concerning their responsibility for developing the next generation of researchers should be strengthened and explicitly articulated.
- With regard to PhD scholars, there is a particular need for transparency with regard to the allocation of teaching responsibilities but also the provision of PhD training courses.
- All academic staff should regularly receive a clear statement of the financial and organisational support available within the department.
- The particular needs of international staff within the department need to be considered and as necessary addressed (e.g. with regard to teaching and language support).
- The new building will create a substantial opportunity for the department to establish a more integrated working environment. There are a number of approaches which might be taken to space allocation (from mixing current areas to co-housing them). The working group appointed for this task should consider the possible options and be afforded opportunities to seek consensus around them.
- The department should consider how best to encourage joint research and educational initiatives across the current groupings. The establishment of a cross-disciplinary incentive fund could be valuable here.
- In order to encourage departmental research collaboration, the creation of an annual research conference (or similar) – perhaps linked to a series of departmental research seminars – might be beneficial. In order to increase their cross-departmental appeal, certain events could have an overarching or cross-linking theme. More sharing of courses should be encouraged, especially at the PhD level. A departmental research council representing the research of each area could meet at regular intervals.
- The panel invites the department to consider its current name, which seems primarily to list the constituent elements. Could a more integrative name be considered, signalling also a renewed level of shared ambition: Language, Knowledge (or Thought) and Reason?
- There is a particularly clear overlap between the Theory of Science area and the Science and Technology Studies section within the Department of Sociology and Work Science – and indeed there is already a close working relationship. If greater integration of the ToS area does not seem possible, then there is the obvious potential to relocate this within the Sociology department. Similarly, Linguistics (if probably not Computational Linguistics) could possibly be consolidated at the Department of Swedish.

DEPARTMENT OF SWEDISH

164	Introductory Remarks
164	Section A – Background and Research Standing
164	A1. Background
165	A2. Research standing
167	Section B – Leadership
167	B1. Leadership
168	B2. Recruitment
169	B3. Career structure
170	B4. Funding
170	B5. Feedback and evaluation
171	Section C – Complete Academic Environment
171	C1. Collaboration
172	C2. Relevance and impact on society
173	C3. Research-teaching linkages
175	Section D – Academic Culture
175	D1. Academic culture
175	D2. Publication
177	D3. Facilities and research infrastructure
177	D4. Transverse perspectives
178	Section E – Support
178	E1. Internal research support
178	E2. Faculty and University-wide support
179	Section F – Other Matters
179	F1. RED10 evaluation
179	F2. Other matters
179	Concluding Recommendations

INTRODUCTORY REMARKS

The following documents form the basis for this assessment:

- The RED10 evaluation;
- The self-evaluation of the Department of Swedish;
- The RED19 documentation as to costs, staff and bibliometrics;
- The notes taken and the impressions from the site visit conducted according to the enclosed programme.

Furthermore, the panel asked Professor Tommaso Milani, our extremely effective host, for additional information on:

- The number of PhDs who have graduated along with information on which profile they belonged to and what their career has been since graduating;
- Information from the five research profiles on what they consider to be their best publications, published in the period under study;
- How the faculty allocation for visitors was used;
- The external grant funds distributed among the various types of positions in Swedish crowns (SEK) instead of percentages.

We gratefully acknowledge receiving this information swiftly.

The panel prepared a site visit programme and detailed a number of questions beforehand. The site visit was conducted as informal, open and frank discussions between the panel and the members of the department. In this way we got a well-rounded impression of the atmosphere of the department and were able to summarise our impressions first in a meeting with the departmental leadership team and the profile leaders, and later at a meeting summoned for this purpose to which everyone from the department had been invited to attend.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The RED10 evaluation concluded that the Department of Swedish was loosely organised and recommended changes. The changes put in place consisted, among other things, in the establishment of five research profiles, some of which existed already, some even as separate units (notably *Språkbanken*):

- LT (Language Technology (Språkbanken));
- LL (Lexicology and Lexicography, incl. SAOL);
- MSSL (Multilingualism incl Swedish as a second language);
- GG (Grammar Group);
- TC (Text and Context).

The first programme participates in teaching in the master's programme of the same name (also taught by staff from Computational Linguistics at the Department of Philosophy, Linguistics and Theory of Science (FLoV)) and also has a specialised research education (PhD-) programme; this is also the case for MSSL (an attempt to create a national coordinated programme with the University of Gothenburg as the anchor has recently been launched), whereas the final three profiles all contribute to the various educational programmes in Swedish and jointly teach the PhD programme in Nordic Studies.

The department is the result of fusions carried out some time ago. These may to a certain extent still be felt, partly because some parts of the department are in separate buildings. We are certain that the new building will be an asset in the further integration of the Department of Swedish (as indeed for all departments), not least since all interviewees expressed high hopes for it and also a great willingness to work in that direction. *Thus, we do not recommend any changes in the organisation of the department.*

All the interviewees also expressed great confidence in the new leadership team. In particular, the plans for individual research planning, to be carried out in annual conversations with the deputy departmental head for research Professor Tommaso Milani, was seen as a promising initiative (cf. below).

It was our impression that the five profiles – albeit to varying degrees – all had the task of being a safe home for employees who had common linguistic interests and performed this task to the satisfaction of their members.

A2. Research standing

We have given some thought to the profile of the department as such, partly within the University of Gothenburg (UGOT), partly also on the national scene. The name of the department stands out as a statement: Svenska/Swedish (although the name of the PhD programme is 'Nordic'). Maybe the distinctive characteristics of the Swedish department are:

- Focus on Swedish as both L1 and L2 and Swedish as a written codified language.
- Broad approach to 'schools of thought', no one school dominating.

For the same reason, it perhaps appears somewhat less clearly profiled than other departments at Swedish universities we might compare with (Stockholm, Linköping, Uppsala, Lund). We shall come back to this.

There are any number of ways to measure and objectify research quality and research standing. Most of these are based on comparisons with some baseline. UGOT has decided to use the University of Oslo (UiO) as the baseline for comparisons. Measured by this yardstick the department comes out as publishing significantly less than its sister institute at UiO, ILN. The numbers for 2017 (the only numbers available) are striking:

ILN published a total of 140 publications, 102 of which were at level 1, 38 of which were at level 2. UGOT's Department of Swedish published a total of 128 items, 26 of which could be classified according to the Norwegian system and only eight of which were level 2 publications.

Even bearing in mind that there are more staff at ILN, who in addition have much more research time than at the Department of Swedish (cf. the self-evaluation), we conclude that measured by this standard, the department fails to make a striking impression.

But is that the right standard to use? This discussion belongs to Section D below.

Another commonly used measurement is the amount of external funds allocated to the department. We have noted that in this regard, the department has performed well. It should, however, be noted that the external grants seem to be unequally distributed among the five profiles. The materials submitted to the panel do not make any detailed comparison possible but LT and LL seem to be doing extremely well compared to the other three profiles.

As to the specific profiles we have noted the following points of interest:

LT: Extremely well-functioning both internally at the department and at UGOT, as well as nationally. LT has been the receiver of grants both from UGOT itself and from the national granting agencies. It has an internationalised environment with excellent external connections and a clear profile. The challenge will be to find a way to increase funding once the present grants expire and even more challenging: To find a new leader soon. We recommend that the department consider the possibility of announcing the professorship in an open competition. As to the future of LT at UGOT, we recommend that a broad view of LT be taken such that it is also seen as a possible pillar of the Centre for Digital Humanities, though not the only one (if this centre is to be continued).

LL: Well-functioning but also very specialised and with few possibilities for development, since the profile is bound by a long-lasting contract (41 years to go) with the Swedish Academy. This is both good (it gives a secure income) and challenging: the format seems to be very conservative and thus may be a hindrance for development. We found LL to be open to (more) collaboration with other profiles, particularly LT and GG.

MSSL: The profile seems to be well on its way to becoming a national hub, led by its new professor. There is a lot of interest and there are a lot of applicants, e.g. for PhD positions. The challenge may again be to find new income but we learned that the department already has new ideas and some practiced routines for this, which could be developed further. The step from Swedish as a second language to Multilingualism gives the profile a chance to develop a new take on an old problem, one that indeed will make collaboration with e.g. GG and TC but also Linguistics

at FLoV more obviously relevant.

GG: Has recently suffered a great loss with the retirement of Elisabeth Engdahl. The group seemed less coherent than the others but was also very open to internal collaboration with other profiles. One might wish for a new common, externally-funded, project, cf. above and below.

TC: This profile has grown and includes staff who take a CA and discourse approach to Swedish, and it has a recently appointed professor. As such it could be fruitful to initiate collaboration with other profiles as indeed has already happened. This group probably has most to gain from a map of all language-related research at UGOT (cf. below) since it has connections outside the department as well. A project to develop a broad take on the linguistic analysis of teaching, and the changing conditions for teaching Swedish as a subject, would be a welcome challenge for this profile to take on.

We recommend that the department facilitate talks between and inside the profiles to search for themes for more projects to be carried out in common. A suggestion could be e.g. language acquisition and attrition in the broadest possible sense.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

The steering group of the department consists of one Head, one Deputy Head/ Associate Head of Research, one Associate Head of PhD Research, one Associate Head of Research Infrastructure, and one Education Coordinator. The Education Coordinator leads the work of four Directors of Study. Taking into account the relatively big and diverse department, the panel finds the structure to be appropriate and the appointed leaders to be dedicated. The leadership at the department recently changed, and the self-evaluation report as well as the on-site interviews indicate that the department is now in a consolidating phase and redefining its identity, as well as looking for good ways of working towards the future. This redefinition must combine (as well as challenge) old practices, traditions and work cultures, with changed financial, academic and career demands. There are potential tensions at this juncture so leadership needs to be sensitive but at the same time decisive and distinctive.

The department has five research profiles, and it is spelled out in the self-evaluation report (p.11) that the Associate Head of Department for Research has a function to support dialogue and collaborate among these profiles in order to encourage synergies. The head does not want to stipulate research directions, and it is an explicit decision not to formulate a common departmental research strategy. The panel is impressed by the success of research funding and activities within (most of)

the profiles. However, there seem to be relatively few cross-profile collaborations (see further below). By way of example, there does not seem to be formal fora for the leaders of the five areas to meet and discuss.

Recommendations

The panel asks the department leadership to reconsider the decision not to have a joint research strategy, as well as having shared visions and missions of the department (where are we now? where do we want to be in five/ten years' time?). Rather than restricting research freedom of individual researchers, a well carried out strategy effort – led by the department leadership but in which the whole staff is engaged – means that research strengths of the department are identified and carefully documented; it enables renewal of old and traditional fields and supports emerging new themes and areas; it marks Swedish at UGOT on the map and distinguishes it from other departments; it guides decision-making and development, and engages with strategies of the university (and faculty).

B1.2 Faculty/University level leadership

The system is such that a lot of the power, responsibilities and decision-making have been delegated by the Vice-Chancellor (Rektor) – via the faculties – to the individual departments. In reality, the faculty level seems to be fairly weak, a point repeatedly addressed in the faculty report. This means that the Head of Department has a lot of power to decide on how to allocate teaching and research time, and to outline strategies. The department therefore has been delegated a lot of freedom but also responsibility and pressure. During the onsite interviews, voices were raised asking for the faculty to be more visible, to take action, and to have general research strategies, as well as to provide hands-on guidelines as to how to allocate funds.

Recommendations

The panel recommends that the strategy process at the departmental level be attuned to the efforts at the level of the faculty so that interfaces are made clear and efficient.

B2. Recruitment

Recruitment to the Department of Swedish takes two different guises:

Either you are recruited as a PhD student and may continue as a lecturer, initially with very little opportunity for research. You may then rise up the career ladder through the promotion programme to get more opportunities. Or you are recruited from another university in Sweden or abroad after applying for a UGOT post which has been openly advertised.

Obviously, the open-competition option is necessary in cases where the department leadership finds that it is necessary for the department to bring in new people in or if the leadership wants to test whether the staff who are already present will stand the contest when a position is openly advertised.

There are now a number of recruitment programmes, such as the Pro Futura and the WAF, which on the one hand make a lot of opportunities available for persons who are allowed into the programme, but on the other hand also obliges the department to secure a tenured position for the person taken on as part of the programme. Such programmes are thus costly and care needs to be taken in order to ensure that UGOT candidates really wish to stay on after the programme. Otherwise the investment is wasted.

The faculty has for the time being also allotted a sum of SEK 500,000 each year for attracting international visitors. This sum is put at the disposal of each department according to the judgement of the leadership.

All of these options call for strategic decisions taken by the leadership as part of an overall aim to develop fields where the department is either already strong but could become stronger, or where the department is not yet strong but could develop it if the right person is hired. An analysis of needs, e.g. educational needs, and promising possibilities must lie behind any decision as to positions.

Recommendations

The panel recommends that all positions be scrutinised from the point of view of the overall strategic aims of the department as developed during broad consensus discussions on how to tackle future challenges (cf. below). Internationalisation is already present at the department and faculty support is available, but faculty funds might be used more efficiently if a long-term perspective of developing new strong points were the basis for all decisions.

B3. Career structure

Strengths

- The department has been successful in training PhD students. Many UGOT PhDs have found research-oriented work elsewhere in Scandinavia, and many have continued in Gothenburg. This indicates that the Department of Swedish has been successful in this aspect of their work.

Weaknesses

- Lecturers who continue at UGOT immediately after their PhDs may attempt to further their careers via promotion, as noted in Section B2. Because they only have 10% research time, many, if not most, find it hard to be successful enough in research to develop their careers this way.

Recommendations

- The panel recognises the tension between promoting in-house talent and recruiting from the outside, but notes that international experience or at least experience outside the department that awarded a candidate's PhD, is often considered very positively by funding agencies (e.g. the ERC). The panel recommends that the most promising researchers be strongly encouraged to seek

funding for postdoctoral research. Naturally, senior staff members should be involved in this by advising on research themes, funding sources, and even on structuring concrete proposals.

B4. Funding

Strengths

- The primary funding of the Department of Swedish is tied to the number of students, so the department clearly needs to monitor the demand for this instruction and perhaps consider proactive steps to maintain it. Across Europe in general, fewer students are interested in languages, so caution is warranted.
- Lexicology is financially strong due to its perhaps uniquely long-term contract with the Swedish Academy. Language technology has been unusually successful in acquiring prestigious external funding.

Weaknesses

- The programmes appear to involve a large number of courses, which in turn results in fewer students and less income per course, even while instructional burdens – preparations and contact hours – for the staff remain high (as noted above). Team teaching has excellent didactic benefits but can also add to the overhead for coordination need for the instructional program.

Recommendations

- Although there is presumably little one can do to allow more research time at all levels, we urge the department to do its best in this regard, especially at the most junior, instructor level. We repeat our recommendation from B3 (above) that the most promising researchers be strongly encouraged to seek funding for postdoctoral research. Naturally, senior staff members should be involved in this by advising on research themes, funding sources, and even on structuring concrete proposals.

B5. Feedback and evaluation

The introduction of individual research plans as described in the self-evaluation report is a concrete step meant to stimulate and make research activity among staff efficient. It gives the staff appropriate and encouraging motivation and feedback. When asked in the interviews, this planned initiative seemed to be highly appreciated among the staff.

Recommendations

- The panel strongly suggests that the assignment to implement individual research plans should not be delegated to only one person, particularly if any consequences are to be attached to the success of the plans. Routines should also be developed for following up on the individual plans.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

The panel is very positive about the collaborations of the department (see immediately below), but we would especially like to recommend that the department do more to take advantage of the excellent linguistic research concentrated in the neighbouring departments of the Faculty of Arts, but also sporadically present throughout the university, e.g. in the Faculty of Education. The Faculty of Arts at the University of Gothenburg has excellent linguistic research in the Department of Philosophy, Linguistics and Theory of Science and in the Department of Literature and Languages. Together, they roughly equal the size of the Swedish department.

There are some formal links and cooperations among these three organisations (such as the degree programme in language technology), and there are any number of informal ties, but there is no overarching structure where Gothenburg researchers in the language sciences can meet and seek to realise benefits from their proximity in opportunities to collaborate or at least find out about one another's work.

We recommend that the Department of Swedish take the lead in creating a light-weight structure for promoting better cooperation. This recommendation seconds the department's own goal of "developing new collaborations with other departments within the University of Gothenburg" (Self-evaluation, p.10).

We expect that the Swedish department will benefit from closer cooperation, which might be initiated with things as simple as a common website and a regular newsletter announcing upcoming conferences and workshops, lectures, and external visitors. This should mean better attendance and participation at such events, which is normally welcome. This should also lead to more opportunities for consulting with colleagues with complementary expertise when hypotheses arising in one linguistic sub-discipline lead to consequences in another, and thereby to opportunities for verification or validation. PhD projects may benefit when second supervisors may be drawn from a larger pool. Chances for participation in formal projects and grant applications may arise, and the larger group is likely to become better known internationally, perhaps leading to an enlargement of the "international footprint of research" (one of the department's three main goals for the coming period, and the one they list first).

At the risk of belabouring what might be obvious, we state explicitly that we do not recommend a large-scale reorganisation of the groups involved, but rather a low-budget investment in communications, at least as a start.

A second point concerns collaboration within the Department of Swedish itself. The panel was surprised to hear that some researchers in the language technology (LT) group feel like outsiders in the department. Perhaps this will improve when the entire department is housed in the new building. Given the likely continued

importance of LT throughout linguistic research, the Department of Swedish should not just rely on the hope that geographic proximity will integrate this group more closely. Instead, the department should consider how it might integrate the expertise of the LT group into the others. The panel is convinced that this can improve not only the research of the LT group by confronting it with problems in linguistics but also the research of the other groups, as they incorporate techniques for computational modelling and/or for exploiting large data sets.

The Department of Swedish lists an impressive number of local and international collaborations and networks in its self-evaluation. We can be certain that these enhance the work of the department and that they ensure that UGOT is well known in Sweden as well as in Europe, and indeed in the world. The Swedish Language Bank (SLB, *Språkbanken*) is a well-funded initiative led by the language technology (LT) group at UGOT and involving speech technology at KTH and the Swedish Institute for Language and Folklore (*Institutet för språk och folkminnen*, ISOF). It is developing a nationwide infrastructure for research on language technology, linguistics, and other research built on language data. It alone would suffice to put UGOT on the map with respect to collaborations, but the self-evaluation lists four more LT projects with European and American partners, and funded by selective and prestigious agencies. Some SLB tools are so popular that they have inspired international workshops among users.

The groups focusing on grammar, lexicography, multilingualism, and text and context are likewise all involved in national, Scandinavian and international collaborations ranging from collaborating on specific research topics, to conducting European projects and including active roles in international professional organisations.

C1.2 Collaboration with external stakeholders

Cooperation with external, non-academic stakeholders is concentrated in the LT and lexicography groups, where the very long-term contract of the lexicography group with the Swedish Academy is worth special mention. The group is under contract for work on the official Swedish dictionary, and the length of the contract indicates the remarkable confidence the Academy places in the department.

C2. Relevance and impact on society

The department admits candidly that a good deal of its research is motivated solely by scientific curiosity rather than specific applied goals. It sees its teaching and its graduates (see Section C3 below) as its most tangible contributions to society, but it also lists several other contributions that arise occasionally.

C2.1 Management and support

In order to communicate its work to the public (see below), the department works through a departmental Communications Officer, but there is apparently little need for structures to foster knowledge transfer to industry, government or elsewhere.

C2.2 Research relevance and impact on society

The department houses research in societally relevant areas, including aphasia (a neurological language disorder) and the multilingualism associated with contemporary immigration. Members of the language technology profile produce freely available software, which is definitely used outside of UGOT, and several department members have written textbooks that are used outside Gothenburg. Other members of the department are active in presenting research to the interested public, for example at the Gothenburg Book Fair, but the department itself is critical about the success of its outreach efforts.

The department does not yet systematically gather information on this aspect of its work.

We recommend that researchers be asked to keep track of this aspect of their work, and that the department keep a record of their annual or bi-annual reports. We are aware that this monitoring of outreach is a common challenge for the entire university (as discussed in other panel reports) and thus will have to be coordinated at least at the faculty level.

C3. Research-teaching linkages

The department is proud to continue the tradition of interwoven research and instruction, but both the self-evaluation and the remarks of colleagues in interviews emphasised that the teaching expectations could be burdensome. Semesters are 20 weeks long, many staff members have 65% and even 90% assignments in instruction, and courses are often team-taught. With respect to the final point, the panel appreciates the advantages of team teaching, but notes that it always involves an additional overhead of coordination.

It surprised the panel to learn that there were many staff members who would be pleased to be involved in teaching but whose contracts do not allow it. This seems to be concentrated in the LT and LL programmes, *and the committee recommends that the department explore opportunities to involve staff members from these areas in the instructional programmes.*

This is sensible in order to let students benefit from their expertise, and to give staff members in LT and LL an opportunity to acquire qualifications in instruction, while also relieving the burdensome level of teaching assignments elsewhere in the department. Perhaps willing staff members might take on some teaching in the team-taught course without violating the terms of their contracts.

C3.1 Undergraduate and master's education

Although the department lists five research programmes, one of them, language technology (LT), is not involved in the teaching programme, and virtually all students in the undergraduate degree programme are students of Swedish (Scandinavian languages) or Swedish as a second language (SSL). Both these profiles are associated with the multilingualism research programme. Except for LT all the

programmes participate in the master's programme, where the imbalance between Swedish/SSL and the rest is smaller, but still exists. The education directors are proud of the fact that students in their programmes learn about current research and that they participate in it under careful supervision when they write their bachelor and master's theses.

The department depends on undergraduate numbers for a large part of its budget, so the dominant interest in Swedish and SSL must be borne in mind in formulating strategies. With respect to consequences for research, we note that researchers who are able to link their work to topics in education are likely to be more successful because they have the opportunity to involve students in some projects, and this means that researchers with some affinity for Swedish and SSL should be attractive. We hasten to add that research in all the fields represented in Gothenburg can have affinities with the work in Swedish and SSL – Grammar, LT, LL, and TC, even if not every researcher is interested in pursuing this direction.

C3.2 Doctoral education

The doctoral students were without exception positive about their choice to come to UGOT, and about the opportunities for research in the department. Although students were satisfied with supervision, there appear to be no explicit guidelines about it, e.g. concerning the frequency of meetings between PhD candidates and supervisors, and such guidelines (not necessarily hard and fast rules) can be useful in case there are problems. The students were unaware of opportunities for instruction in several standard areas, however, and *the panel would recommend that the courses be developed if necessary and be published prominently in areas such as research ethics (including co-authorship and dealing with human subjects), data management, statistics and data analysis, and career opportunities for PhDs outside academia*. Decisions about participation in such courses could become part of the instructional and supervisory plans for each doctoral candidate. We are aware that such generic courses are planned to become part of the faculty's programme and this seems sensible in view of the shortage of PhD scholarships at the faculty. It was notable that all the students had applied for their scholarship through open and broad calls and that there had been fierce competition for the positions (especially in SSL/Multilingualism). This underlines the attraction of the Department of Swedish PhD programme and the conscious decision to prioritise PhD positions at the department.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

The academic culture at the department is open and generous; all of the interviewees looked forward to moving in together with the others or receiving those who were housed outside of Humanisten, and relished the thought of having more interaction. That is a brilliant start indeed. But it is certainly not enough. *The department has to launch a concerted effort to start the mental integration necessary to form a coherent whole, which still maintains its openness and its generous attitude towards external collaboration.*

The academic culture, to a certain extent, relies on a tacit agreement between staff and leadership that it is possible to be promoted if one meets the criteria for promotion to the next step. An important feature of the career ladder (cf. above) is the amount of research time which increases for each step upwards. In order for this to work to the benefit of everyone involved, the standards for moving upwards need to be explicitly formulated and rigidly adhered to in the assessment process. We are aware that this is a hotly debated topic and also debated elsewhere in the RED19 evaluation, but *we recommend that the department invest in an effort here which details e.g. the publication profiles required for the various positions. Professors should e.g. produce regularly at the highest level defined for the profile they are directing or are a part of.*

D2. Publication

D2.1 Publication strategy

In Section A above we discussed the research quality metrics that are normally used, including publication details as codified in the Norwegian model. We concluded that the department does not come out as publishing well using this measurement. But is this the right measurement to use? We have looked at the list of publications which we asked the five research profiles to supply us with, detailing the publications which they themselves saw as their best contributions. The list is very instructive since it contains 57 items, 23 of which can be classified as belonging at level 2. When scrutinised a little more, it appears that the Norwegian system is particularly appropriate for MSSL, GG and TC, while it completely fails to cover the most relevant output from LL and to a certain (and well-known) extent also from LT.

We have also looked at the development of the total number of publications per staff measured in FTE. This measure does not, however, take into consideration the minimal amount of time allotted to research in the position of lecturers (we have not, of course, included the teaching staff) and should thus be corrected for the amount of FTE in the various positions. This is not feasible, however, for the simple reason that some of the staff have been financed to carry out more research than is included in their university position, by external grant giving agencies. Thus, we agree that this is a crude measure, but when used to compute a mean of publications per FTE there are some grounds for worry since it is decreasing over

the period, mostly because the number of FTEs has increased while the number of publications has not. Our reasons for optimism therefore rest on the delay in publication that is well-known. Eventually, we hope that means will rise as the newcomers increase their footprint. We may then tentatively conclude that the department still has a long way to go but that it is on the right track. As for the goal, *we recommend that the department, in collaboration with the faculty, set up its own goals, independent of the Norwegian system where it does readily apply, while using the Norwegian (or any other system agreed upon) where it indeed does apply. In this way, the department can be held accountable for reaching its own goals, which have been formulated to significantly increase its national and international footprint.*

D2.2 Analysis of bibliometric data

Department of Swedish, FTEs by year					
	2013	2014	2015	2016	2017
Professors	4	4	4	4	7
Senior lecturers	22.7	22.1	20.6	20.7	17.8
Lecturers	8.9	11.3	12.8	20.1	18
Total	35.6	37.4	37.4	44.8	42.8
MEAN (publications/FTE)	3.6	3.1	2.6	2.7	2.4
Postdocs	4	1			
New total	39.6	38.4	37.4	44.8	42.8
Publication data					
Total	128	116	96	121	103
Articles, all	19	19	13	13	16
level 1	14	16	11	9	14
level 2	2	3	0	2	1
Books, all	0	0	1	1	1
level 1	0	0	0	0	1
level 2	0	0	1	0	0
Book chapters, all	27	14	8	17	23
level 1	4	3	1	6	22
level 2	6	1	4	1	1

As may be seen in the table above, the mean number of publications is decreasing almost year by year. Since the number of FTEs for research, including postdocs, is significantly higher in 2017 than it was at the beginning of the period (in 2013), primarily due to the higher number of professors and senior lectures and the appointment of postdocs, it is to be expected that the number of level 2 publications (however one wants to define that) will also increase significantly in the coming years. But this will not happen without a concerted effort. We have noticed the high hopes everybody has invested in the planning of publication efforts for a three-year period and the consultations on these plans with the Vice-Chair for Research at the department. This is indeed a good start and an important instrument but it

also has to be backed up by the leadership so that it includes pooling of research time, especially for those at the bottom of the career ladder. Otherwise, there is a very real danger that lecturers become teachers for life.

We recommend that the leadership closely follow progress as to publications in the channels selected as the most prestigious ones for the profiles and by the profiles themselves (cf. above), so as to monitor whether the instrument chosen has to be supplemented with others (courses in English and Swedish academic writing, master classes with relevant editors and/or particularly successful colleagues etc.) or revised.

D3. Facilities and research infrastructure

cf also E2 below

The department has de facto willy-nilly taken a decision not to invest in the expensive lab facilities that, e.g., Lund University has built up during recent years. This seems however to be a decision that, so to speak, was not taken consciously and strategically but rather came about as the outcome of the interests of the staff. However that may be, the decision will probably not be reversed since lab facilities would weigh heavily on a shrinking budget, which is shrinking primarily due to the higher expenditure of the building.

LT has taken on the highly valuable task of building the digital infrastructure for the department but some profiles have probably not taken advantage of the help and consultation they might get as to storing and structuring data.

We recommend that all profiles appoint a member whose job it will be to coordinate such solutions and that leadership supports this by allocating the necessary amount of time.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

As in several other departments, the gender balance is uneven at the top (among the professors, five are men while two are women, one of whom is scheduled to retire soon) and at the bottom (students and PhD students manifest the opposite: Much more women than men). The department is concerned about both and *we recommend that steps be taken to monitor future gender balances and to find ways to promote a better balance at both ends of the career ladder.*

D4.2 Internationalisation

Obviously, a department which has defined itself as concerned with Swedish faces different challenges than departments such as FLoV in this respect. Nevertheless, as noted above the LT profile has succeeded eminently at creating an international milieu and MSSL is well on its way to doing so. The panel notes that it cannot be the responsibility of a department of Swedish to internationalise by hiring staff

who are not fluent in and experts in the Swedish language, but internationalisation has to be seen as more than that: It certainly is the responsibility of the department to bring to the attention of international researchers work being carried out on Swedish, which has relevance for international discussions, including inter-Nordic discussions. Departments such as the one under scrutiny here also function as hubs for international students who want to study Swedish and this might be an angle which has not yet been fully exploited at UGOT.

SECTION E – SUPPORT

E1. Internal research support

The Deputy Head of Department is willing to read grant applications before they are submitted in order to help optimise them, which is extremely helpful support. A small amount of discretionary funding is available for staff members who need time for (completing) grant applications. The deputy head of the language technology (LT) programme enthusiastically promised to try to support all requests for assistance in data management and archiving, and noted that his LT programme is also very willing to consider collaboration that requires data analysis, e.g., in extracting examples of linguistic structures.

It would be sensible to ensure that there is training for complying with open-access guidelines, but such training might be offered at the faculty or the university level.

It is common that linguistics departments have associated labs, but the UGOT department is involved in rather little technical linguistics, i.e. linguistics studies that require access to specialised equipment such as video/audio recording (and annotation software such as ELAN or EXMARALDA), eye-tracking, reaction-time, ERP, articulography, ultra-sound, etc. or facilities for studying acquisition. Neurolinguistics apparatus would involve collaboration with a hospital, but lines of research involving fMRI, PET scanning, or deep-brain stimulation were not mentioned. Some work in technical linguistics is going on at UGOT, but rather little, and the department may wish to keep this in mind as it seeks to strengthen its collaborations or its staff. It is worth noticing that the decision not to have such research seems to have been taken without any discussion of its possible consequences for the university's profile within the language sciences in general but simply because that type of research used to be carried out at another department, i.e. that of linguistics.

E2. Faculty and University-wide support

The UGOT model is based upon widespread decentralisation. This is in many ways commendable but it seemed to the panel that the time has come to re-evaluate the role of the faculty in making decisions that have a direct effect on the departments. Two areas stand out: *PhD education*, where the panel was informed that various courses were planned at the faculty level (understandably so, since the number of PhD students at the departments has diminished considerably)

and *external funding*. The self-evaluation has some rather critical remarks on the lack of a faculty policy for co-financing when applying for external grants. At present there does not seem to be any stated policy here which applies equally to all departments at the faculty.

This should be put in place so that all departments are aware of the costs and have committed to carrying out the project, including co-financing, before any applications are submitted. A review of what the role of the faculty is, as to the stimulation of research collaboration within the faculty, would be especially fruitful at the present juncture since the move to the *Humanisten* building is expected to open up new possibilities for just that. The panel has noted that the faculty does have a certain, not insignificant, amount of strategic means at its disposal.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Cf. Section A1 above, it is our impression that the RED10 evaluation led to a fruitful reorganisation of the department but that the warning signals in RED10 as to the problems with publications have not yet led to a definitive strategy.

F2. Other matters

In times such as these it will be a good idea to search for new types of income and new routines. The first is to create more finances for teaching and research, the second for creating a better environment, liberating time spent on administrative routines for research. All routines must be scrutinised for time and efficiency. This is valid for the general meeting routines: Are they really all necessary and must they last that long? This also applies to the routines of teaching many courses in tandem or teams: Is this always necessary or always the best solution, seeing that it creates a need for coordination at all points?

We have been thoroughly impressed by the engagement shown first by the department deputy for research but indeed later at the site visit by all interviewees in the RED19 process. In recommending a broadly-based, generally bottom-up process of creating a long-term strategy for the Department of Swedish, it is a real asset that we have met so many people engaged in doing their best.

CONCLUDING RECOMMENDATIONS

For the Department of Swedish there are challenges ahead:

- There seems to be fewer new students coming in to study Swedish (this is probably a national challenge or even a European one).
- The university as such has a strong tradition of third-stream activities (outreach) which the department should develop.

- Some research profiles are growing more than others and there could be a limit both as to how big profiles should be and how small profiles should be.

The leadership should place the Department of Swedish in the broader landscape of language sciences at UGOT. This would be instrumental for creating new partnerships and collaborative patterns inside and across departmental and faculty barriers. Leadership should actively encourage staff to find the best possible partners for project proposals outside the department, the faculty or even Sweden and Europe.

Above, the panel asked the leadership of the department to reconsider the decision not to have a joint research strategy, as well as having shared visions and missions of the department (where are we now? where do we want to be in five/ten years' time?). We argued that a well carried out strategy effort – led by the department leadership but in which the whole staff is engaged – would be beneficial for the department as a whole, in fact we see it as a cornerstone of the effort to tackle the challenges ahead. Consequently, it is our final recommendation that the departmental leadership start a process of looking ahead so that long-term strategic decisions may be taken based on a broad consensus. We have noted some reservations as to strategic decisions both at the department level and at the level of the faculty (and indeed the university). We understand these reservations but we also note that the challenges lurking ahead make it necessary to create a clear sense of direction for the department. Thus, the Department of Swedish should base its process on an analysis of long-term trends in the surrounding regional and national landscape, which may influence the very definition of Swedish as a subject in the future. These would include e.g. the composition of the population, the need for competencies and educational efforts in the future, and the conditions for universities to play a central role as drivers in the future. Furthermore, the definition of core activities at the department may have to be revised. We have tentatively circumscribed the core of activities at the department as concerning the written Swedish language, whether as an L1 or L2, but with the future involving multi-modal communication, the introduction of new hybrid text types and the blurring of the limits of languages, the very breadth of research at Swedish may have to change too, as may the definition of data for research and research strategies.

PART II
PANEL REPORTS

FACULTY OF EDUCATION

FACULTY OF EDUCATION

184	Introductory Remarks
184	Section A – Background and Research Standing
184	A1. Background
186	A2. Research standing
187	Section B – Leadership
187	B1. Leadership
188	B2. Recruitment
189	B3. Career structure
189	B4. Funding
190	B5. Feedback and evaluation
191	Section C – Complete Academic Environment
191	C1. Collaboration
192	C2. Relevance and impact on society
192	C3. Research-teaching linkages
193	Section D – Academic Culture
193	D1. Academic culture
194	D2. Publication strategy
194	D3. Facilities and research infrastructure
194	D4. Transverse perspectives
195	Section E – Support
195	E1. Internal research support
195	E2. University-wide support
196	Section F – Other Matters
196	F1. RED10 evaluation
196	Concluding Recommendations

INTRODUCTORY REMARKS

This report details the role of the Faculty of Education in relation to the following departments: Education, Communication and Learning (IPKL); Education and Special Education (IPS); Pedagogical, Curricular and Professional Studies (IDPP); and Food, Nutrition and Sports Science (IKI). The RED10 review of the Education departments noted that in the previous two to three years a restructuring had taken place, with the result that one large Department of Education, comprising 292 academic staff, had become the three smaller Education departments just listed. Also, by 2010 the Department of Food and Health had been expanded to become the Department of Food, Nutrition and Sports Science. The 2010 report therefore noted that its review was undertaken during the initial phase of implementing these new configurations.

The departmental reviews in 2019 were undertaken by two panels: one focusing on the Education departments and one on IKI. Both panels have observed that the self-evaluation prepared by the Faculty of Education in the autumn of 2018 is detailed and thoughtfully reflective. The comments that follow are based on the panels' reading of the faculty self-evaluation documentation and a site visit in early April 2019. In addition: the Education panel received notes from a pre-visit undertaken by the chair in January 2019; shared initial commentaries on the self-evaluations; held a Skype meeting in March to identify areas for exploration during the site visit and where further information prior to the visit would be useful. It received additional information from the RED19 team and from the faculty and departments during March. The additional information included a draft of the faculty road map in relation to research. The chair of the panel reviewing the research environment in IKI also received the notes from the pre-visit and the three-person panel shared comments via email in preparation for the site visit.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The implementation of the University of Gothenburg's (UGOT) hourglass model of the relationship between university management, faculties and departments in 2013 has impacted on the work of the faculty. The present report focuses on the subsequent somewhat circumscribed role of the faculty in relation to enabling productive research environments within the four departments. Because the changes in 2013 gave increased decision-making power to departments, the function of the faculty has become largely limited to one of coordination through negotiation. This limitation is significant, not least because in the current context of expanding responsibility for teacher education across the departments, the Heads of Department are understandably likely to prioritise teaching over research; though the panels have noticed nuanced differences in this prioritisation across the departments.

At the faculty level, the work of two of the three faculty board sub-committees, each chaired by vice-deans, relate to research. These are the working committee for research and the working committee for third-cycle education. The committees comprise members of departments from cognate areas and in the case of the research committee these are usually highly experienced researchers. The two vice-deans represent the faculty on the relevant university committees; the faculty-level committees may therefore serve a useful communicative function linking the departments with the wider university and are places where strategy can be discussed. Because of our focus on research environments we centre our comments on the work of the research committee.

The faculty self-evaluation notes that the faculty board may reserve only 20% of university funding for strategic purposes. Consequently, the dean and vice-deans have limited leverage when attempting to implement strategic intentions. The draft faculty road map indicates that the faculty has a role in quality assurance. While this is carried out through, for example, detailed analyses of bibliometric data, the role also involves taking an overview of the potential strategic direction of research across the faculty and the enablers and barriers. Among the latter are concerns about a weakening of the seminar culture in departments, a generational shift in staff, low levels of investment in future researchers and research leaders and a significant reduction in the per fte grant to the faculty for research. The draft road map outlines laudable objectives and strategies to remedy these and other concerns. However, these useful ideas serve only to remind the readers that they may largely only be taken forward through a much-mentioned climate of collegiality and spirit of cooperation.

The four-person Education panel observed a number of challenges common to all three departments and which are therefore relevant to the potential role of the faculty. These are listed in full in the report on the three Education departments together with recommendations for ways forward. Here the focus is solely the implications for any research enhancement role of the faculty.

1. There should be an expectation that at the very least there is a culture of scholarship that involves all staff, including lecturers, and is encouraged through reading groups and discussions, which may operate across departments. The faculty has a role here in establishing this expectation.
2. It could be useful for the faculty to give validity to four types of research activity in its discussions with departmental research leaders and department heads. One intention would be to encourage neophyte researchers to engage and to become familiar with the top-quality work undertaken by colleagues. The first type of research leads to the highest quality outputs speaking to an international audience; next are sound pieces of work aimed at national or a wider regional readership; followed by practice-developing research aimed at higher education teachers, master's students etc. and then action research, which could be on one's own practice or in collaboration with external practitioners. This framing of types of research could inform strategies for inter-departmental

- collaborations within the faculty. For example, it could encourage collaborations between researchers doing the highest quality work in cognate areas.
3. These four types of research together with funding from a variety of sources could also be used to build well-focused research programmes within research groupings, which form the basis of bids for further funding. There are some examples of such programmes across the departments and there is much to be learnt from them. The faculty should be able to draw attention to successful programmes and enable cross-departmental collaboration and mutual learning.
 4. There need to be serious discussions about what constitutes research leadership within the departments. These discussions could be a faculty responsibility and outcomes should be aimed at both internally promoted and externally appointed professors and docents.
 5. There is a need for the development of vision and strategies in line with the faculty level vision and strategies to be followed up at department levels.

The panel would wish to seriously question the UGOT hourglass model and suggest that, by limiting the faculty role in relation to strategic research leadership and instead focusing on the Heads of Department as implementers of UGOT policy, the university is placing considerable responsibility for vibrant research environments with colleagues, whose primary concern, in this faculty, is necessarily teaching.

A2. Research standing

The faculty's aims recognise that educational research does not simply involve studying school-based formal education. There is therefore particular mention of UGOT funding initiatives in AI and digitalisation, and encouragement to the departments to engage with them where possible. The faculty's role is primarily one of indicating the strategies required to create robust research environments in the departments. Efforts include encouraging bibliometric analyses (even though this is not the same bibliometric system which is used to allocate funding to UGOT) and the formation of coherent research themes. The faculty leadership also aims at supporting Nordic and international networking, and growing connections with other UGOT faculties. Although it has little leverage in relation to recruitment, it will continue to encourage the recruitment of staff with international experience. All of these points are relevant to the research climate across the faculty's departments and are mirrored in the RED19 review of the departments. However, the faculty is not in a position where it can easily assume leadership of major research initiatives across departments. This has resulted in diverse organisation of research teams in the departments.

Both the draft road map and the faculty self-evaluation have identified the areas of potential weakness where intervention is needed if high-quality research is to grow. These include the loss of key researchers through retirements and the drop in PhD recruitment. The road map provides details of potential strategies to tackle these and other concerns; but, as we have already indicated, the faculty has very limited leverage with departments and research groupings due to a lack of fund-

ing. In brief, the faculty team's aspirations and vision are relevant, but their lack of direct capacity to address some of these topics is concerning. The faculty has, however, recently appointed an international advisory board to help them take forward the strategies outlined in the draft road map.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Faculty leadership

Strengths

- The team involved with research in the faculty (including the dean) are all strong and experienced researchers.
- The team is able to negotiate some initiatives with departments through the use of strategic funding and through the collegial climate that obtains across the departments in the Faculty of Education.
- There is a strategic awareness of the need to collaborate across departmental boundaries, with other UGOT faculties and internationally.
- The team is aware that it needs to balance structure and support and not take research leadership away from the research groupings in departments.

Weaknesses

- There is no representative from IKI involved in research leadership at the faculty level.
- There has been a *per-capita* reduction of one third in core funding for research.
- There are low levels of strategic funding at the faculty level to address concerns and to support initiatives arising in departments.
- The success of faculty initiatives depends on the research leadership at the research grouping- and departmental levels.

Recommendations

- Find a way of involving IKI in the direct work of the faculty.
- Continue to make the case for a sustained increase in core funding for research.
- Consider the faculty's role in training for and supporting research leadership for promoted chairs and docents and for new appointments at those levels.
- Consider the faculty's role in ensuring that all teaching staff have the opportunity to engage in and with research.

B1.2 University level leadership

Strengths

- The work of the Grants and Innovation Office is greatly appreciated.
- UGOT management have recognised the special case that the faculty presents with regard to the shortfall in core research funding but, welcome as the addi-

tional funding it has provided since 2018 has been, it does not entirely make good the lack of core research funds attached to teacher education students.

Weaknesses

- The UGOT hourglass model severely limits the capacity of the faculty to address the problems it identifies.
- While UGOT co-funding of successful projects is appreciated, funding is needed to support the development of networks that lead to these large awards, particularly as the faculty needs to support the development of the next generation of research leaders by enhancing their internationalisation.

Recommendations

- The hourglass model needs revisiting.
- The funding allocation model needs revising.
- Funding of networks prior to bidding would be a help.

B2. Recruitment

Strengths

- The faculty team is aware of the need to recruit staff with international research experience.
- The team is also aware of the need to attract and nurture the next generation of research leaders.
- There is also a sensitivity to the long-term dangers presented by the current low levels of recruitment of PhD students.

Weaknesses

- The loss of a significant proportion of research leadership in research groupings through retirement.
- Making the departments attractive to the best international research leaders who could be replacements is difficult given current conditions of work, such as limited research time even at professorial level.
- While the dean needs to approve departmental appointments, in reality he or she has relatively little power over appointments to departments, which are generally teaching-led.
- As already indicated, the faculty team is experienced enough and close enough to departments to identify the actions that need to be taken; but is limited in the actions it can take.
- There is a lack of applicants with PhDs to teach on the teacher education programmes.

Recommendations

- UGOT should enhance the role of the faculties in relation to recruitment of more senior staff.
- More appointments need to be research-led in the criteria used.
- Efforts should be made, with the help of UGOT, to attract the very best inter-

national researchers to the Faculty of Education's departments.

- The faculty self-evaluation notes that the departmental research environments need to be more strategically involved in attracting high-quality applicants for posts.

B3. Career structure

Strengths

- The faculty provides or enables access to a variety of staff development opportunities at UGOT.
- Through, for example, encouraging analyses of bibliometric data, the faculty working committee for research makes clear what currently counts in terms of building an academic career.

Weaknesses

- The faculty is concerned about the right to be promoted that obtains at UGOT, as it limits opportunities for strategic appointments.
- Some home-grown promotions lack the necessary international experience and networks.
- While there are examples of excellent research apprenticeships, there is no current cross-faculty policy aimed at preparing PhD students for future careers.
- Similarly, while there are examples of good practice, there is no cross-faculty policy for mentoring senior lecturers as early-career researchers.

Recommendations

- Work needs to be done to develop the research leadership capacity of new senior appointments and promotions.
- More support for internationalisation of experience for tenured staff is needed.
- Special attention should be given to the postdoc-phase also when appointed (senior) lecturer with a mentor programme with emphasis on research.

B4. Funding

Strengths

- UGOT recognises the current problems arising from the historic funding allocation model and the need for a transparent and equitable system.
- An external advisory board has been appointed to advise, for example, on addressing the current decrease in external funding to the faculty's departments and the allocation of research resources.
- The Grants and Innovation Office is helpful.
- The faculty working committee for research is raising awareness of the implications of bibliometrics and opportunities for research funding.

Weaknesses

- The generational shift and the appointment of staff who are not research-active has contributed to the decrease in external research funds.

- Not all research-active staff are aware of the funding implications of the bibliometric data.
- The reliance on local co-funding for PhD students has raised questions about the quality of their work in some cases.
- Bidding for research funding to buy time for research can be at the expense of writing high-quality publications from recently finished studies.

Recommendations

- UGOT should create a more equitable and transparent system for the allocation of core funding.
- The faculty should continue to encourage the development of coherent research programmes that attract funding from a variety of sources, address current societal issues and can be the basis for high-quality publications.

B5. Feedback and evaluation

Strengths

- Research evaluations carried out by the research council and UGOT provide useful data for the faculty to follow up.
- Bibliometrics and other departmental funding matters are discussed openly in the faculty research committee as part of its QA role.
- RED19 will be followed by a faculty research day.

Weaknesses

- The extent to which different research groupings plan in strategic yet flexible ways is not consistent.
- The role of the faculty working committee for research in relation to research group planning is unclear.

Recommendations

- Introducing a clear system for the strategic planning of research at group and department level, with resource implications attached, would help to place research needs more firmly at the centre of departmental staffing strategies. It would also enable an evaluation of departmental staffing, publication and impact strategies.
- Any evaluation element attached to the success of research plans would provide useful feedback to the faculty and departments in relation to how they build conducive research environments.
- Sharing such plans across departments via the faculty committee for research would assist in encouraging cross-departmental research collaborations.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Engagement with other UGOT units varies in strength across the departments, but there are some excellent examples.
- All the departments have some engagement with other Swedish universities and across the Nordic region. Here the Just-Ed element of the Nordforsk Education for Tomorrow programme has been particularly significant in IPS.
- The Vice-Dean for Research alerts researchers to possible collaborations and encourages internationalisation of networks; while the faculty covers costs of attendance at international network meetings and co-funds international projects.
- New plans for the allocation of faculty strategic funding are being implemented in 2019 to support initiatives for research collaborations, both national and international.

Weaknesses

- Elements of some departments and some research groupings are not yet making external academic collaborations a priority.

Recommendations

- Continue to focus on the need for greater internationalisation of research in the working committee for research.
- Continue to prioritise these collaborations by using strategic funding.
- Encourage departments to create internationalisation policies, which include attention to involving early-career researchers in such collaborations.

C1.2 Collaboration with external stakeholders

Strengths

- As might be expected of Education departments, there are strong connections with external stakeholders at local, regional and national levels across the four departments.
- The faculty has created a set of principles for establishing these collaborations.

Weaknesses

- The role of these collaborations in achieving societal impact could be clearer.
- The collaboration with external stakeholders seems to be largely based on individual engagement.

Recommendations

- Departments should create impact strategies. Here the faculty could help with workshops on how collaboration can lead to impact in the field of study.

C2. Relevance and impact on society

Strengths

- The 2019 Times Higher Education University Impact Rankings, which assess universities against the United Nations' Sustainable Development Goals, placed UGOT first in relation to quality education i.e. their contribution to early years and lifelong learning, their pedagogy research and their commitment to inclusive education.
- The faculty holds an annual conference for external stakeholders to showcase its research.

Weaknesses

- See C1.2

Recommendations

- See C1.2

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Here the faculty does what it can by following up course evaluations.

Weaknesses

- The faculty has a limited role in ensuring connections between research and teaching in these courses.

Recommendations

- In discussion during the site visit the faculty team explored a possible role in facilitating master's programmes with pathways that involved inter-departmental collaborations based in common research interests.

C3.2 Doctoral education

Strengths

- A group has been established to examine the current faculty system for supporting the recruitment of PhDs.
- One aim is to enable departments to assume this responsibility in order to link recruitment more closely with current research strengths and priorities.
- Some research groupings create environments where PhD students are in close contact with colleagues' current research.

Weaknesses

- Despite the best efforts of the faculty, the recruitment of doctoral students remains a problem.
- PhD student attendance at seminars is not uniformly high.
- The faculty is aware of the challenge of working closely with local co-funders of part-time studentships to ensure high-quality projects. But this work is still on-going.
- Not all those with research leadership roles give priority to creating research environments aimed at supporting the education of PhD students.
- PhD programmes vary across the faculty, and with some the high requirement of course-related credits is a problem.

Recommendations

- Continue to examine how recruitment and support of PhD students can be more closely connected with the best departmental research.
- Continue to work on ensuring high-quality projects in co-funded part-time research degrees.
- See the earlier comments on training for research leadership. This should include responsibility to doctoral students within a research grouping.
- Consider fewer PhD programmes.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The faculty arranges seminars on cross-cutting topics such as research ethics and publishing.
- Supervisor seminars are held at faculty level, where issues arising from feedback from PhD students are discussed.
- The working committee for research comprises experienced researchers from all the departments and is an opportunity to share knowledge about upcoming initiatives and encourage strategic research planning.

Weaknesses

- A reliance on collegiality for the implementation of strategies to enhance research environments has its limitations.
- The separation of research and teaching in some areas in departments can create barriers to placing research as a priority in departmental planning.

Recommendations

- The faculty's concern with, for example, inter-departmental research collaborations and increased internationalisation mean that it needs greater influence within all academic environments to explore, with them, how to address these

topics and connect them where possible with departmental plans for the development of teaching programmes.

D2. Publication strategy

Strengths

- While bibliometric data are analysed and discussed, the faculty is also aware of the limitations of the Norwegian system.
- Efforts are made to ensure all academic staff are aware of the metrics and their impact in funding and their careers.

Weaknesses

- The Norwegian bibliometric system does not reflect the value placed by the faculty on co-authorship.
- Departments support writing through, for example, writing weeks. While this is laudable, these events do not constitute a policy for publication at departmental level.

Recommendations

- It could be useful to assist departments in creating fully-rounded publication strategies to be shared among all academic staff. In such strategies staff should be made aware of the budgetary importance of good international peer-reviewed publications. However, this strategy raises questions about the appropriateness of the currently used bibliometric system.

D3. Facilities and research infrastructure

The faculty's departments host infrastructures in the form of national databases and the LinCS video-lab. However, the faculty reported that there is ongoing work within the mandate of the university Research Board on the topic of facilities and infrastructure. Therefore, the faculty will await the outcomes of these discussions before moving forward in this area.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Concern with equal opportunities permeates all the work of the faculty from the recruitment of PhD students to the appointment of professors. It includes awareness of, for example, how women colleagues constitute the majority of senior lecturers, who are potential researchers and have particularly heavy teaching loads. Hence the relative lack of research time and consequent career development is clearly a gender issue.

D4.2 Internationalisation

Strengths

- The faculty promotes and supports an increasing international focus across its departments.

- Publications are increasingly in English and internationally oriented.
- An international advisory board has been appointed to help take forward ideas in the road map.
- Several of the research groups attract top-level international researchers for study visits.

Weaknesses

- The appointment and promotion of home-grown academic staff prevents appointment from outside UGOT and Sweden.
- PhD students have very limited opportunities for studying abroad.
- EU money has not yet appeared a priority.

Recommendations

- Continue to encourage and support the building of international networks.
- Focus more systematically on EU funding sources and the collaborations that underpin them.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Please see previous comments on how the faculty supports the research environments across its departments.
- The working committee for research has a key role in creating criteria for and assessing applications for strategic research funding held at faculty level.

Weaknesses

- There is insufficient funding at faculty and departmental levels for all that is needed, including staff time for research and doctoral studentships.

Recommendations

- Continue to develop priorities for the use of strategic research funding.

E2. University-wide support

Strengths

- From 2018 UGOT is partially compensating the faculty's Education departments for the shortfall in core research funding.
- The faculty working committee for research is pivotal in linking UGOT support strategies with departmental priorities.
- The Grants and Innovation Office is a valued resource.
- The UGOT courses on research leadership are valued.

Weaknesses

- The additional UGOT funding does not make good the entire shortfall.
- The database for publications is not always meaningful for individual researchers.
- Help is needed with systems for data storage, security and use.

Recommendations

- There is a need for UGOT to revise its funding model so that it is transparent and fair.

SECTION F – OTHER MATTERS**F1. RED10 evaluation**

The RED10 evaluation suggested that all the departments should:

- foster national and international collaboration and recruitment from outside the University of Gothenburg;
- strengthen the flux of postdoctoral and early-career scientists from and to the University;
- review departmental and faculty-level structures and, where appropriate, reduce the number of highly specialised and under-staffed research groups;
- foster the dissemination of best practice within the University in relation to research and research planning;
- promote interdisciplinary research both within the University and in collaboration with European and international partners.

The 2019 departmental reviews have shown that Education departments have all addressed the general RED10 recommendations listed and tackled specific departmental-level comments. Some concerns with the specific recommendations for IKI are detailed in the departmental report. The role of the faculty in supporting responsive developments has included strategic funding for a centre in Health and Performance and for seed-funding a newly emerging research group on Education for Sustainable Development.

CONCLUDING RECOMMENDATIONS

- i. There is a case to be made for core additional funding to the Education area and for a larger proportion to be held back by the faculty for strategic initiatives and support.
- ii. The departmental reviews indicated that there was more potential for inter-departmental research collaboration than was currently underway. Systems for enabling such synergies need to be explored at faculty level. Across the departments there are some excellent examples of coherent and successful research programmes which draw on a variety of funding sources.

There is maybe more of a role for the faculty in enabling the sharing of these forms of good research practice.

- iii. Research leadership in departments and research groupings was inconsistent across departments with implications for doctoral students and early-career researchers, but also for links between research and teaching. UGOT should reconsider the weight of responsibility placed on Heads of Department in relation to research and look for ways of enhancing departmental strategic research leadership and the potential of the faculty level to support these leaders.
- iv. While UGOT offers training in research leadership there is a case to be made for more tailored learning opportunities for research leadership for newly appointed and promoted posts, which draw on good practice within the faculty's departments and which can be supported by cross-departmental mentoring for these new leaders.
- v. There is a need for inclusive, consistent and coherent, if flexible, research planning at the level of research groupings and departments. These plans need to be connected to teaching and resource implications and discussed at faculty level for the purposes of evaluation and responses to any barriers encountered.
- vi. University Management is currently working on research collaborations and potential impact. Nonetheless, there is enough good practice across the departments for the development of impact policies which recognise the connection between collaborations and impact. While these policies need to be owned by departments, there may be a role for the faculty in stimulating and supporting their development.
- vii. Departments are concerned with supporting colleagues' writing activities, yet publication policies are more supportive than strategic. There is room for some faculty development work here.
- viii. The role of the faculty in internationalisation has been strategic and successful, responsibility needs to be taken up more consistently across departments and policies for internationalisation created.

DEPARTMENTS OF EDUCATION (IPKL, IPS, IDPP)

200	Introductory Remarks
200	Section A – Background and Research Standing
200	A1. Background
204	A2. Research standing
208	Section B – Leadership
208	B1. Leadership
210	B2. Recruitment
211	B3. Career structure
213	B4. Funding
214	B5. Feedback and evaluation
214	Section C – Complete Academic Environment
214	C1. Collaboration
217	C2. Relevance and impact on society
217	C3. Research-teaching linkages
219	Section D – Academic Culture
219	D1. Academic culture
220	D2. Publication
222	D3. Facilities and research infrastructure
223	D4. Transverse perspectives
224	Section E – Support
224	E1. Internal research support
224	E2. Faculty and University-wide support
225	Section F – Other Matters
225	F1. RED10 evaluation
225	F2. Other matters
226	Concluding Recommendations

INTRODUCTORY REMARKS

This report details the state of research environments in the three Education departments within the Faculty of Education. The departments are: the Department of Education, Communication and Learning (IPKL –143 staff members); the Department of Education and Special Education (IPS – c.200 staff members); and the Department of Pedagogical, Curricular and Professional Studies (IDPP – c.110 staff members).

The RED10 review of these units noted that in the previous two to three years a restructuring had taken place, with the result that by 2010 one large Department of Education, comprising 292 academic staff, had become three smaller departments, each with an Education focus. The 2010 report also noted that its review was undertaken during the initial phase of implementing this new configuration. The 2019 review provides the opportunity to consider some of the implications of the reorganisation, as well as responding in detail to topics highlighted by the review process. The panel therefore presents a report that comprises all three departments in order to enable its review to highlight potential synergies, overlaps and differences across departments in ways that might inform cross-department collaborations or future reconfigurations.

The panel has noted that the departmental self-evaluations prepared by the three Education departments in the autumn of 2018 are detailed and thoughtfully reflective. The comments that follow are based on the panel's reading of the self-evaluation documentation and a site visit in early April 2019. In addition, the panel: received notes from a pre-visit undertaken by the chair in January 2019; shared initial commentaries on the self-evaluations; and held a Skype meeting in March to identify areas for exploration during the site visit and where further information prior to the visit would be useful. During March, the panel received additional information from the RED19 team and from the faculty and departments. The additional information included a draft of the faculty road map in relation to research.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

There have been two significant changes originating in the wider environment in which the departments are located. First, in 2013 the University of Gothenburg (UGOT) instigated what the university management describes as an 'hourglass model' for the delegation of responsibilities, which has altered relationships between departments and faculties. Currently, operational decision-making lies with departments, necessitating duplication in administrative efforts across departments and placing considerable responsibility on the Heads of Department. We note that while the faculty has responsibility for strategic research planning and quality assurance, such as policies for seminar discussions on doctoral theses

and licentiate dissertations, it has little leverage in relation to research within the departments. This potential imbalance is in part due to the faculty being restricted to withholding only 20% of university funding in order to incentivise departments to take forward faculty strategies. The panel would therefore like to question the effectiveness of UGOT's 'hourglass' model in relation to research strategies.

Secondly, during the same period, the Swedish government tackled a national teacher shortage by requesting that all Higher Education Institutions with departments of Education increase their teacher education intakes. In particular, between 2013 and 2019 UGOT pre-school and primary student teacher numbers increased from 1,144 to 2,337, and lower- and upper-secondary student teacher numbers from 574 to 1,203. While the latter students are also located in subject departments, the increased intake does impact on the Education departments. These students bring teaching funding with them; but their numbers do not augment core research funding. According to the draft road map, the relative size of the faculty grant per employee active in research fell by nearly a third between 2014 and 2017. In addition, these increases in student teacher numbers have necessitated recruiting teaching staff who are part-time or do not necessarily have PhDs and are therefore not research-active.

The three Education departments have operational responsibility for research and third-cycle work and have broadly similar organisational structures, with these responsibilities held by members of each of the three departmental leadership teams. The three departments are also represented by experienced researchers on the faculty Working Committee for Research, which is chaired by the Vice-Dean for research. In this review we focus primarily, but not exclusively, on the organisation and leadership of research.

IPKL comprises three research areas. Early Childhood Education (ECE- four Professors) is a long-established area of internationally-recognised research activity at UGOT. Childhood, Youth, Culture and Learning (CYCL – four professors) is a post-2010 grouping drawing on interdisciplinary resources to study societal challenges and their impact on children and young people. Learning and IT (LIT-two professors) examines digitalisation in formal and informal learning contexts and collaborates extensively with other faculties. LIT builds on the Swedish Research Council-funded (2006–2018) Linnaeus Centre (LinCS) and offers the LinCS-Video Lab as a departmental resource. The RED10 report specifically encouraged the areas in this department to build connections across the department, increasingly orient its work to an international audience, and develop a departmental infrastructure plan. The three research areas are now less distinct and comprise a number of research groupings, which indicates a capacity to respond to new research demands and to collaborate within the department. Moreover, there are emerging research links with strong potential with research areas in the other Education departments.

IPS hosts five research programmes which, the department argues, are disciplinary-based and connected by their interests in differentiation. The programmes are: Learning and Assessment of Languages (LBS – three professors); Platform for Research in Inclusive Education and School Development (PRIS – six professors); Power and Agency in Education (PAGE – four professors), which is an umbrella environment for Critical Studies (KRIT) and Politics in Education (POP); Prerequisites, Education and Outcomes (FUR – five professors); and School Development and Leadership (SKUL – four professors). The RED10 report specifically recommended that: IPS strengthen synergies between the research programmes; publications be more oriented to an international readership; and every effort be made to ensure the continuation of funding for the longitudinal databases that are central to the highly-regarded research undertaken by FUR. In 2019 there was little evidence of collaboration across programmes within the department, but signs of collaboration with groupings in other departments in the faculty. The panel noted that the IPS groupings appeared stable entities, in many ways unchanged since the 2010 review, and was concerned about the ease with which they could adapt to new societal demands for research in their areas.

The organisation of research in IDPP is in transition. Three research environments were established in the autumn of 2018: Didactic Classroom Studies (DCS – one professor); Phenomenography, Variation Theory and Learning Studies (PVL – one professor from IDPP and one from IPKL and one senior professor); and Critical Education Studies (KRUF – one professor). Of these only PVL has an established history as a research grouping. Simultaneously, the department's earlier 'areas of interest' still pertain, with the result that the three environments focus on research, and the areas of interest attend primarily to teaching. Education for Sustainable Development (ESD) is an emerging research area among the areas of interest and attracts colleagues from across the research environments. The RED10 report specifically noted the potential importance of research that might be undertaken by this department, but suggested that: the senior leadership for research needed to be enhanced; there should be greater clarity on IDPP's potential contributions to pedagogical and curricular studies; and junior and non-publishing colleagues needed to be helped. It is rather early to comment on how IDPP is currently being shaped, but the panel observed that the three research environments were aiming at inclusivity; but were at very different stages of development in relation to creating distinct identities as bases for high-quality research.

The panel observed a number of challenges common to all three departments. These are listed below, together with suggestions for ways forward.

The growth of student teacher numbers without related core research funding, together with the UGOT system of core funding allocation, produced the following challenges, all of which threaten research quality:

- i. The need to recruit staff without PhDs to meet teaching demands due to the increase in student teacher numbers.

- ii. The working conditions of senior lecturers, who despite having PhDs, have no time for research.
- iii. The limited amount of time for research for tenured staff.

The implications of these three challenges include: (i) difficulty in addressing the generational shift in research leadership arising from the recent and impending retirement of senior staff; and (ii) a culture of research bidding to fund research time, often at the expense of writing high-quality articles.

The panel offers the following suggestions to ameliorate the current situation:

- i. There is a strong need for smarter teaching that frees up time for research. Discussions are underway at a national level (through Styr- och resursutredningen – STRUT (The Commission of Inquiry on Governance and Resources)) to enable a less rigid demarcation between teaching and research funding. The panel would anyway encourage creative thinking about teaching workloads to liberate research time.
- ii. There should be, at the very least, a culture of scholarship that involves all staff and is encouraged through reading groups and discussions.
- iii. It could be useful to consider four types of research activity, each of which is valid. One intention would be to encourage neophyte researchers to engage and to become familiar with top-quality work undertaken by colleagues. The first type of research would lead to the highest quality outputs speaking to an international audience; next are sound pieces of work aimed at national or a wider regional readership; followed by practice-developing research aimed at higher education teachers, master's students etc. and then action research, which could be on one's own practice or in collaboration with external practitioners.
- iv. This framing of types of research could inform strategies for inter-departmental collaborations within the faculty. For example, it could encourage collaborations between researchers conducting the highest quality work in cognate areas.
- v. These four types of research, together with funding from a variety of sources, could also be used to build well-focused research programmes within and across research groupings, which form the basis of bids for further funding. There are some examples of such programmes across the departments and there is much to be learnt from them.
- vi. There needs to be serious discussions about what constitutes research leadership. These discussions could be a faculty responsibility, and should be aimed at both internally promoted and externally appointed professors and docents.
- vii. The capacity for strategic research leadership at the faculty level needs to be enhanced in the university system so that the potential research synergies across departments indicated in the current review can be more clearly enabled.

The panel also noted the inclusive and collegial climate in all three departments and the attempts made by the Heads of Department to manage the healthy tension

between central direction and professional discretion that can produce strong research environments. The panel therefore observed the heavy responsibilities placed on the Heads of Department and noted that with one exception the role did not overtly involve research leadership; rather their focus was understandably primarily on teaching. The relative lack of strategic power at the faculty level meant that faculty research leadership could not easily compensate for this gap. The panel therefore concludes this overview by again suggesting that UGOT revisit its hourglass model and its impact on sustaining high-quality, cutting-edge research environments.

A2. Research standing

Department of Education, Communication and Learning (IPKL)

IPKL is organised into three broad research areas, at the same time its organisation allows for dynamic, topic-focused research groupings, which work across these three areas, to arise. We discuss the three areas, while recognising the creative and responsive way that collaborations across these areas occur. *ECE* research focuses on three themes: (i) Children's learning and the preschool as a play-and- theme-based institution; (ii) Learning and didactics in terms of multiculturalism and how new technologies impact on teaching and learning; and (iii) Policy and quality issues in relation to children's learning and well-being. Recently there has also been an emphasis on sustainable education. Current projects include funding from the Swedish Research Council and the Swedish Institute for Educational Research; while *ECE* also maintains a tight connection between research and pedagogical practice, with direct relevance for policy and practice. *ECE* is facing a generational shift, which threatens its long-standing international reputation. Their response is to aim for a UGOT research centre in Early Childhood Education. While this vision may help ensure the continuation of their high status, new initiatives are necessary. The department and the research area need a clear and feasible strategy if they are to take forward this aim, with serious attention to what these new areas of research might be and how research leadership might be strengthened.

CYCL research focuses on processes related to power, meaning-making and knowledge construction. Their interdisciplinary research includes addressing how structural and cultural changes relate to the impact of social class, gender and ethnicity; new types of inclusion and exclusion and violence; and crime in schools. A number of projects have Swedish Research Council funding; in addition, there are collaborations with the Segerstedt Institute on research on right-wing extremism. There are also three collegia: (i) Violence and harassment in schools, (ii) Social justice in education and (iii) Global childhoods. Established after RED10, this energetically-led research area has made great strides. It has a growing research reputation primarily in a national and Nordic context, but with a high potential for more international collaborations and networks. The review panel would encourage this area's ambitions for internationalisation and the development of explicit strategies for doing so.

LIT research is organised as: (i) Digital technologies in school; (ii) Digital technologies in leisure activities and civil society; (iii) Technology and epistemic changes in higher education; and (iv) Professions, knowledge and innovation. The research largely builds on cultural-historical approaches, and there is a long and continuing tradition of cross-disciplinary and cross-institutional collaborations. LIT is also facing a generational shift. This challenge, along with the end of Linnaeus funding to LinCS in 2018, is being currently met by: building on the consistently high quality of its research; valued collaborations within UGOT and internationally; and its wider networks. LIT is aiming at creating a UGOT research centre, based on national and international collaborations, and organised on cross-disciplinary and cross-departmental grounds. In brief, LIT produces research of a very high international level and has an excellent record in international collaboration and networks. While recently focusing on new funding from national and Nordic sources, the research area recognises the need to gain international funding.

To summarise: within IPKL there is a sustained history of research council and other high-status funding, the bibliometric profiles are good-to-excellent, and there are plans and strategies for new research initiatives – some already in the making. However, there are also some challenges to be met. These include the need to sustain research leadership in ECE to ensure the continuation of its highly-regarded research. The dynamic and responsive research groupings mentioned earlier can be complex and not always fully transparent, especially for junior researchers. IPKL is certainly forward-looking, with an environment geared to both responsive and creative synergies, within a broad framing of strategic planning for the near future.

The Department of Education and Special Education (IPS)

The department comprises a complex, rich ecology in the organisation of research, providing many opportunities to discuss and produce research. There are, as mentioned, three disciplines, five research programmes (*forskningsmiljöer*), complete academic environment meetings (KAM) and collegia. Writing weeks are also arranged. The research programmes are: Learning and Assessment of Languages (LBS); Platform for Research in Inclusive Education and School Development (PRIS); Power and Agency in Education (PAGE), which is an umbrella environment for Critical Studies (KRIT) and Politics in Education (POP); Prerequisites, Education and Outcomes (FUR); and School Development and Leadership (SKUL). There is, again, a generational shift taking place, which creates a formative moment. Strategies and plans are elaborated with explicit reference to the university's Vision 2020. However, the department's visions and strategies for the future are quite modest and a bit vague, along the line of: more and better, consolidation, increased collaboration and communication. The long-term strategy could be bolder and more strategic.

The research groupings have been very stable, which could be interpreted positively, but it also poses questions about how change in groups and establishment of new groups are supposed to take place. Across research groups the urgent need for more PhD students and postdocs was expressed. For FUR, there is a matter of

long-term survival as one of the main hubs for quantitative methods in Sweden. One main challenge is how to attract younger scholars to the field who could benefit from their databases. Collaboration with other similar groups at other universities, e.g. in the form of national research schools, seems to be a way forward. We also heard aspirations of becoming a centre at the university.

In general, the research conducted at IPS is at a high level and the bibliometric data show a productive group of researchers in relation to the research time allocated. It also shows a growing number of international journal publications, in line with the overall strategy and trends. In addition, some groups emphasised the need to also publish edited books and in outlets aimed for other target audiences, such as teachers. All the research environments have a strong history of attracting external funding, in particular from the Swedish Research Council. There is also engagement in international projects, with funding from EU and SIDA. In particular, there is a legacy in the Nordforsk-funded Nordic Centre of Excellence, which provides a platform for further Nordic collaboration (with POP and KRIT), building on that. The plans for increased internationalisation are worthwhile and promising and could include a more consistent strategy for EU funding. The low level of core research funding constrains opportunities for co-funding and makes tough prioritisations necessary, e.g. the decision not to co-fund postdoc positions.

In terms of research breadth and participation in research, the panel recognises the efforts to include more staff in research. The strategic initiative to involve academic staff without a PhD (lecturers) by using the concept of KAM as a way to increase scholarship is laudable. The department also produces a growing amount of commissioned research with and for external actors, which confirms its strong relations to the sector. The potential offered by this kind of research could be better recognised and might, to a greater degree, be turned into publications and related to other basic research undertaken at the department, in the formation of distinct and coherent research programmes related to current societal issues.

Department of Pedagogical, Curricular and Professional Studies (IDPP)

In the autumn of 2018, the department established three research environments; consequently, the organisation is in a transitional and formative phase. The rationale for the reorganisation was to reflect current research interests, while organising staff to be better able to build networks, gain external funding, and experience stronger research environments for career development.

The research environment *Critical Educational Research (KRUF)* concerns the entire educational system. The perspective is on the circumstances that provide conditions for what education and schooling can be. The field is widely defined and the members make use of different theoretical tools and qualitative research methods. KRUF holds seminars every second week and every semester there is a writing retreat. At the moment the group is working to develop common ground for joint research projects and other research activities. Hence its current stage of development is rather inward-looking; a coherent research programme appears

to be still in the making. There is therefore a need for a more systematic mapping of potential funding sources, how the research environment fits with the department's research profile and what synergies there may be with groups in the other two Education departments.

The research environment *Didactic Classroom Studies (DCS)* consists of researchers who study teaching and learning in specific content areas as well as researchers who foreground general aspects of practices of teaching and learning. There is an interest in combining research on didactic and classroom studies in order to offer an understanding of issues and challenges in classrooms (in schools and teacher education), as well as in problematising the complex relations between teacher, learner and content. The research is based on different theories and research methods. DCS holds regular seminars and is in the development phase of a conceptual framework and research platform. Researchers in DCS are involved in practice-based research projects. IDPP has strong relations with municipalities and schools, which gives a good basis for externally-funded practice-oriented research. This orientation seems to fit well with the DCS profile.

The research environment *Phenomenography, Variation Theory and Learning Studies (PVL)* draws on a well-established and highly-regarded international research tradition that originated primarily at UGOT. The activities of the group are based on four decades of research about learning and the development of the phenomenographic research approach as well as variation theory. The founders of this research approach are now retired, presenting a generational shift in the group. PVL holds monthly research seminars and members of PVL are active in the EARLI SIG 9, hosting its conference and being the SIG coordinator. In 2016, PVL members edited a special issue of the Scandinavian Journal of Educational Research (SJER) on Phenomenography and Variation Theory. Nonetheless, for PVL to sustain its international position, as group members are aware, there is a need for additional strategic work for its further development.

The department is also organised in interest areas, which pre-date the establishment of the research environments and currently relate mainly to colleagues' teaching interests. Here there is a danger of separating research and teaching. One of these interest areas is *Education for Sustainable Development (ESD)*, which serves as a node for this topic throughout UGOT. The group was headed by a renowned scholar in the field for five years. This was a productive period in terms of publications and participation at international conferences. The area has received faculty support and grants from the research council. It was explained that this area is not a research environment as it is of interest to colleagues from across the three research environments.

IDPP is highly dependent on external research funding for finding time to undertake research, which calls for a systematic approach with regard to type of research, areas of collaboration and recruitment as well as attention to the quality of its research publications. Writing retreats are organised and publications

encouraged, but the bibliometric profile is uneven and in need of development. There is, however, potential for stronger connections with research groupings in other Education departments.

In order to reach its aims in 5–10 years the department needs to create better research conditions. This calls for prioritisation and systematic work between the research environments and the department, and between the department, the faculty and the university.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

IPKL

Strengths

- A high degree of professional discretion left to researchers resulting in dynamic research groupings.
- A research drafting committee that intends to be a communication channel from faculty to research groupings.

Weaknesses

- Potential researchers may be lost within this dynamic group structuring.
- ECR felt that they were not aware of what happened at the research drafting committee.
- Some groups may find themselves less visible in this mobile environment.
- This loose structure, where decision-making is not always transparent, can be frustrating.

Recommendations

- Continue to nurture this collegial dynamic, but balance it with more explicit strategies where, for example, routes to creating a centre or making a case for a senior appointment are clear and open.
- Make decision-making responsibilities between departmental management and research leadership more explicit and transparent.

IPS

Strengths

- There is a strategic view of links between KAMs, research programmes, and collegia.
- The leadership structure is well-defined.
- The leadership is seeking ways of enhancing time for senior lecturer research.

- The involvement of professors and docents in the DOP, which links research to the departmental board.

Weaknesses

- The DOP is not evidently a channel of communication for non-docents and non- chairs.
- It is not clear how research groups may evolve over time.

Recommendations

- Develop strong communication links between DOP and colleagues at different stages of their research careers.
- Monitor the current strength of research groups, be alert to worthwhile emergent research themes and disband those groupings that are relatively inactive.

IDPP

Strengths

- There is a focus on research leadership among the senior team.
- There is an inclusive approach to engagement with research (which brings its challenges).
- The KAMs include good relationships with schools.
- The research committee plays a part in departmental planning.

Weaknesses

- The separation of the new research environments and the former interest groups risks separating research from teaching.
- The role of the research committee in departmental strategy could be stronger.
- There are hard decisions to be made in an inclusive approach to research career development when resources are so limited.

Recommendations

- Prioritise research alongside teaching in timetabling.
- Consider ways of conducting smarter teaching and the creative deployment of staff to liberate time for research.
- Clarify and strengthen relations between research environments and interest groups and with research groupings in the other Education departments.

B1.2 Faculty/University level leadership

IPKL

Strengths

- The department is heavily represented at the faculty level.
- Knowledge flows to and from faculty to departmental committees.
- Colleagues are aware of university encouragement of internationalisation.

Weaknesses

- There is a loss of key researchers to faculty work.

Recommendations

- Faculty could do more to enhance cross-departmental collaborations.

IPS

Strengths

- The relationship with the faculty research committee works well.
- Researchers call on the 20% strategic funding to support their strategies.

Weakness

- Lack of stable core funding to make good the shortfall from increasing student numbers.

Recommendations

- UGOT should consider the need for stable core funding to make good the shortfall mentioned above

IDPP

Strengths

- The meetings between the Dean and the Heads of Department are useful, regular and well-defined.
- There are some examples of collaborations across departmental boundaries within the faculty.

Weaknesses

- Not all possibilities for cross-department collaborations are realised.

Recommendation

- The faculty should be encouraged to take a stronger role in enabling cross-department collaborations to build stronger research groupings.

B2. Recruitment

IPKL

Strengths

- Co-funding for postdocs (though this can be a weakness if it is at the expense of funding PhDs).
- Attempts to sustain a healthy tension between recruitment for teaching and research.

Weaknesses

- Recruitment is nonetheless largely teaching-led.
- There is no evidence of a staffing plan to replace retiring staff.

Recommendations

- Focus on addressing the generational shift and the development of researchers.
- Consider how to replace key scholars who have retired.

IPS

Strengths

- Aware of the need to find more research time for senior lecturers to attract and retain staff.

Weaknesses

- Recruitment is based on the need for teaching.
- It is very hard to find suitable staff with PhDs.

Recommendations

- There is a need to consider recruiting staff from the perspective of the research programmes.

IDPP

Strengths

- The direction of travel currently underway, for example the recently appointed professor in Pedagogic Practices and Classroom Didactics, makes sense.
- The leadership aim to recruit only staff with PhDs.
- Some lecturers have been moved to the PhD programme.

Weaknesses

- There is a lack of applicants with PhD for advertised posts.
- There is also a lack postdocs and assistant professors in the department.

Recommendations

- Investment is needed to appoint PhDs to the research environments and enhance the research leadership in specific areas.

B3. Career structure

IPKL

Strengths

- Early-career researchers (ECR) work with senior researchers in bidding for research awards, which gives them extra research time.

- Research groupings of various kinds give support through, for example, reading drafts of papers.

Weaknesses

- ECR are not always aware of the promotion process and what is expected of them in that regard.
- Some staff may be lost in gaps between the mobile research groupings and lack support.

Recommendations

- Offer clear expectations and opportunities for research careers.
- Ensure that these are communicated with all staff.
- Consider more consistent support for ECR, including perhaps a mentoring system in the first few years as an ECR.

IPS

Strengths

- Annual writing weeks are in place.
- There is support from research groups and within KAMS.
- Colleagues appreciate funding for conferences and international links.

Weaknesses

- There is a shortage of potential teaching staff for teacher education programmes.
- There is a lack of research time for senior lecturer posts.
- Colleagues are under pressure to write applications for funding with, at times, little support.
- Co-funding for postdocs is limited.

Recommendations

- Consider ways of reducing teaching loads to increase research time.
- Prioritise research when career planning with junior colleagues.
- Put in place a research mentoring system for ECR who are bidding for research funding.

IDPP

Strengths

- Lecturers have been moved to the PhD programme.

Weaknesses

- There is currently a lack of clarity for staff over career planning, such as the move to docent and to professor.
- Junior staff have very little time for research and therefore for building the necessary profile to progress in a research career.

Recommendations

- Time should be allocated to recent PhD graduates to capitalise on their PhDs in the first two years after graduating.

B4. Funding

IPKL

Strengths

- There is a good record of research funding over time, including Nordic funding.
- There is collaboration across UGOT for accessing a variety of research funding sources.
- A strategic view of funding is taken, which involves building research programmes that can attract large-scale funding.

Weaknesses

- More attention on EU funding is needed.

Recommendations

- Build networks to seek EU funding.
- Ensure that all eligible staff have support for bidding for research funding.

IPS

Strengths

- Research council funding is steady.
- Commissioned research is growing.
- The databases are a potentially useful resource.

Weaknesses

- Lack of EU funding or plans for EU sources.
- Lack of funding for PhDs in special needs education.
- Funding is needed to sustain some of the databases hosted by the department.

Recommendations

- Continue to build networks as basis for seeking EU funding.
- Make cases for sustaining the databases.
- Collaborate across departments in the faculty to apply for funding for PhDs in SEN and elsewhere.
- Think in terms of research programmes and build on commissioned research in bidding for research council and EU money and in high-quality publications.

IDPP

Strengths

- There have been some recent successes in research funding.

- The department used surplus money from external commissions to good effect in a development project.

Weaknesses

- The UGOT money was a one-off.

Recommendation

- The department should build on its current encouraging track record on funding.
- Colleagues should consider how teaching loads and timetables can be organised to create time for research bidding from a variety of sources, including municipalities.

B5. Feedback and evaluation (across all departments)

Strengths

- Appraisals pay attention to research.
- Meetings are held where there is the opportunity to present work and get feedback.

Weaknesses

- The panel would have liked to have seen clear evidence of strategic planning for research at the levels of research groupings and departments, formulated in ways that the resource implications, including staffing, are clearly outlined.

Recommendations

- Strategic planning for the building of research programmes should be established. The panel recognises that such planning needs to be flexible and responsive. Nonetheless, resource and staffing implications need to be foregrounded if they are to inform departmental research strategies. The outcomes of these plans should be evaluated annually, not simply to check targets are met, such as level 2 publications, but also to consider the impact of environmental conditions in the department and faculty from the implementation of the plans.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

IPKL

Strengths

- There is a strong history of productive academic collaborations and networks within UGOT, with other Swedish universities, and internationally across all

three research areas. Much of this relates to the recent Linnaeus Centre, but not exclusively so.

- LIT has particularly constructive collaborations with other UGOT faculties.
- Research areas in the department also collaborate with groups in other departments within the faculty, through for example the Segerstedt Institute.

Weaknesses

- The department does not have systems for establishing new networks and centres and currently lacks funding to support their development.

Recommendations

- Continue building on previous successes as touchstone sites for research by seeking funding for collaborations that will sustain the department's international reputation.

IPS

Strengths

- Collaboration across departments, for example KRIT and KRUF, and with the Segerstedt Institute.
- Colleagues work with sociology, health and law.
- There is a collaboration with the Oslo University SEN group.
- Colleagues are building on the Nordforsk Just-Ed programme and the long history of this focus in KRIT.

Weaknesses

- FUR is a very strong group internationally and core to academic collaborations, yet is declining in size.
- The labels given to research programmes do not always usefully reflect current focuses and this might impede collaborations. For example, exciting ideas on the broad challenges of immigration are located within PRIS.
- ECR are not consistently brought into collaborations (though there were also good examples of this happening).

Recommendations

- FUR is worth investing in long-term.
- The branding of new research initiatives needs some thought.
- The next generation of researchers needs to be brought more systematically into collaborations alongside current seniors.

IDPP

Strengths

- There is growing cooperation within the faculty e.g. KRUF and KRIT.
- There is a joint PhD school with Karlstad University

- There are collaborations between DCS and University of Oslo experts in classroom studies.
- PVL has had strong international connections over time and is the base for the EARLI PVL SIG.
- The emergent ESD group collaborates with the Swedish research school on Education for Sustainable Development.

Weaknesses

- This is not a weakness in terms of the development of new groups, but both DCS and KRUF are currently and necessarily inward looking and developing their own identities.
- Many of the existing international collaborations are primarily at the individual level through e.g. conferences.

Recommendations

- Structures that enable research collaborations across departmental boundaries within the faculty would further help collaborations, which would strengthen new areas in IDPP.
- There is a need to clarify the strategies for collaborations within the faculty and across UGOT to support the development of ESD as a research area.
- A strategy for internationalisation needs to be developed.

C1.2 Collaboration with external stakeholders (all three departments)

Strengths

- As might be expected of Education departments, all three departments have extremely strong connections with external stakeholders at local, regional and national levels.

Weaknesses

- Although there are several examples of research programmes being enhanced through these collaborations, more could be done to take advantage of them as part of departmental research profiles.
- As societal impact is increasing in importance there is a need to use collaborations to ensure impact, and to keep track of the impact that occurs through collaborations.

Recommendations

- Make the most of the research and writing opportunities that arise through these collaborations.
- Consider developing impact policies that build on collaborations so that a broader understanding of societal impact can be shared across departments.

C2. Relevance and impact on society (all three departments)

C2.1 Management and support

Strengths

- All three departments take societal impact very seriously. Their self-evaluations were impressive lists of what is done and why.
- The departments recognise the impact of these forms of engagement on the quality of both their teaching and research. This work is seen as intrinsically worthwhile.
- They also recognise that achieving impact involves collaboration and is not simply a matter of communication.

Recommendations

- Maybe the departments in this faculty could be showcased as examples for other UGOT faculties.
- See previous comment on the need for impact policies.

C2.2 Research relevance and impact on society

See above.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education (in all three departments)

Strengths

- Master's programmes are underpinned by strong research.
- In IPS and IDPP the KAMs offer a framework for connecting teaching and research.

Weaknesses

- There is a potential separation of research and teaching in IDPP (see previous comments).
- There is a lack of research time for the staff who do much of the teaching at undergraduate level.

Recommendations

- Develop a culture of scholarship to underpin course planning and delivery.

C3.2 Doctoral education

IPKL

Strengths

- PhD students are expected to be active in one of the research environments, through regular attendance and engagement in discussions.
- The department is working hard to find funding sources for PhDs.
- The department's success in external funding offers students excellent opportunities to be involved with projects and research teams.

Weaknesses

- It is difficult to achieve a critical mass of doctoral students, despite funding success and using a significant proportion of the block grant on them.

Recommendations

- Continue to follow the thoughtful lines already underway.

IPS

Strengths

- Students are connected to research groups and are very satisfied with their positions.
- They are active participants in the collegia.
- They appreciate support for international networking through conferences.
- There are opportunities for career development through teaching.

Weaknesses

- There has been a decrease in the number of PhD students in some research programmes.
- A slight majority of students are funded by municipalities and are part-time, creating demands on the timing of events and their engagement.

Recommendations

- This area of activity seems to be working well given limited resources.

IDPP

Strengths

- Doctoral students are encouraged to be involved in the research environments.
- Students have access to CUL if they are teachers and to programmes run by other groups in the faculty and by the faculty itself.
- Awareness of the need to attract more doctoral students.

Weaknesses

- Part-time students can find active participation in research group activities difficult.
- Career development through supervisions and teaching is not strongly evident.
- The international experience of doctoral students is relatively limited.

Recommendations

- More systematic involvement of all research students in research environments.
- Assist doctoral students in developing their academic networks.
- Carefully consider the career development of doctoral students who intend to pursue an academic career through opportunities for supervisions and teaching.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

IPKL

Strengths

- A lively programme of seminars and colloquia.
- Regular departmental discussions on ethics, gender, supervisions etc.
- A hub for national and international visitors.
- Successes in research funding.

Weaknesses

- c.50% of staff are not research-active.
- The department would like more PhD students.
- It may be difficult for some colleagues to find their intellectual homes in this vibrantly evolving environment.

Recommendations

- Set up a research mentoring system for newly-appointed staff and potentially research-active senior lecturers.

IPS

Strengths

- The research groupings and their connections locally, nationally and internationally.
- Some successes in research funding.
- High-quality seminars.
- A policy for research visitors.

Weaknesses

- c.50% of staff are not research-active.
- ECR do not find it easy to engage with departmental research and to develop as researchers.
- The difficult choices to be made between postdocs and PhD students due to limited research funding.

Recommendations

- Set up a research mentoring system for newly appointed staff and potentially research-active senior lecturers.

IDPP

Strengths

- The research environments were launched in the autumn of 2018 and are a brave attempt at reinvigorating the academic culture.
- It is too soon to evaluate their impact.
- The PVL group is well-established and has sound plans for its future directions.

Weaknesses

- A low number of professors to undertake research leadership.
- More than 50% of the staff are not research-active.

Recommendations

- Begin to build cases for further professorial appointments.
- Enable those who may qualify for docent status to move to this career stage.

D2. Publication

D2.1 Publication strategy

IPKL

Strengths

- Research drafting committee and research groupings discuss publication patterns.
- Drafts of papers are discussed in research group seminars.
- An increasing number of outputs are of international standing.

Weaknesses

- Relatively low levels of research time for all academics.
- The department notes that the predominately female group of senior lecturers does not produce international publications.
- A necessary focus on research bidding limits time for producing publications.

Recommendations

- Enable senior lecturers to capitalise on their recent PhDs when appointed.
- Continue with the strategy of co-publishing between ECR and senior staff.
- Ensure that all staff are aware of the funding implications of producing the highest-quality outputs.

IPS

Strengths

- Publication patterns are discussed at DOP meetings.
- Texts in progress are discussed in seminars.
- ECR have some extra support.

- Attention is given to planning teaching in order to liberate time for research and writing.
- Writing weeks are organised.
- Proofreading is funded.

Weaknesses

- Relatively low levels of research time for all academics.
- The predominately female senior lecturer group does not publish in international journals.
- Some senior staff could do more to support the writing of more junior staff.
- In the limited time available bidding for research funding takes priority.

Recommendations

- Ensure that senior lecturers have time to capitalise on their recent PhDs with high-quality outputs.
- Encourage co-publishing between ECR and senior staff for international outputs.
- Consider how commissioned research can lead to strong outputs.
- Ensure that all staff are aware of the funding implications of producing strong outputs.

IDPP

Strengths

- The strategy is a work in progress.
- An annual writing retreat takes place.
- An English language editor is employed at the department.

Weaknesses

- The number of staff publishing at all is low.
- Publishing depends largely on external research funding.
- Not all staff are strategic about where they decide to place their articles.

Recommendations

- Carefully consider how commissioned research can lead to publications.
- Make a case via the faculty to UGOT for additional research funding to make good the per capita reduction arising from the increase in teacher education students.

D2.2 Analysis of bibliometric data

IPKL

Strengths

- The department does undertake analyses of bibliometric data.

- Colleagues are publishing more articles than in the past and the international orientation is increasing.

Weaknesses

- A relatively small group of researchers produce much of the research.

Recommendations

- See the recommendation for ECR research mentoring above.

IPS

Strengths

- The department does undertake analyses of bibliometric data, and makes some valid criticisms of the system.
- There has been an increase in level 2 journal articles and given the conditions of work this is commendable.

Weaknesses

- A relatively small group of researchers produce much of the research.

Recommendations

- See the recommendation for ECR research mentoring above.

IDPP

Strengths and weakness

- Most of the senior staff publish regularly.
- Lecturers without PhD seldom contribute to research.
- There is the recognition of the need for a publication culture.

Recommendations

- Ensure that all academic staff are aware of the links between high-quality publications and funding.
- Consider how teaching can be managed to create more time for research and publication.
- Continue developing a systematic approach for the development of conference papers into articles.

D3. Facilities and research infrastructure (across the departments)

Strengths

- The LinCS video-lab.
- The databases held in IPS.

Weaknesses

- Not all staff are aware of these resources.

- The databases and video-lab require consistent funding.

Recommendations

- More use could be made of the databases, particularly by colleagues in IDPP.
- Continue to seek funding for the databases.
- Seek funding for the LinCS video-lab.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality (in all three departments)

Strengths

- All three departments have indicated how they address gender concerns in different aspects of their self-evaluations, including recruitment, academic careers opportunities, and support for bidding and writing.

Weaknesses

- Women predominate among the non-research-active colleagues as they fill many of the lecturer and senior lecturer posts.

Recommendations

- Continue the current vigilance.
- Consider mentoring based on the specific demands made on women and those who take on parental responsibilities.

D4.2 Internationalisation (in all three departments)

Strengths

- International experience is valued for new appointments.
- Reasonable support for international conferences is available.
- Some of the research groupings attract significant numbers of international visitors.

Weaknesses

- Many of the new appointments are home-grown and lack international experience of any significance.
- There is no funding available for PhD students to make extended overseas visits. This has implications in relation to the frequent appointment of home-grown colleagues.
- There was little evidence of prioritising EU funding.
- There is a relative lack of UGOT funding to support the international networking necessary for EU funding.

Recommendations

- Make the case for the funding of networks to support international research bidding.

SECTION E – SUPPORT

E1. Internal research support (in all three departments)

Strengths

- IPKL have recently initiated a system which alerts the administration to the forthcoming research bid and its implications for resources.
- Seminars are held to advise colleagues on research bidding processes.
- Colleagues indicate satisfaction with the administrative support in both bidding and project management.

Weaknesses

- There is considerable reliance on informal support for bidding, which means that some staff may miss out on the best quality advice.

Recommendations

- Consider implementing the IPKL system of advance notice of bids across all three departments.
- See previous recommendation for research mentorship.

E2. Faculty and University-wide support

Strengths

- The Grants and Innovations Office is a valued resource.
- There are good links between the assistant Heads of Department responsible for research and the Vice-Dean for research.
- The block grant, small as it is, is seen as invaluable.

Weaknesses

- The size of the block grant is inadequate and as useful as one-off grants may be, they do not enable long-term planning.

Recommendations

- The faculty could perhaps do more to enable cross-departmental collaborations and the use of resources.
- The university should revisit its hourglass model and revise its funding allocation system to more fairly reflect the current situation.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The RED10 evaluation suggested that all three departments should:

- foster national and international collaboration and recruitment from outside the University of Gothenburg;
- strengthen the flux of postdoctoral and early-career scientists from and to the University;
- review departmental and faculty-level structures and, where appropriate, reduce the number of highly specialised and under-staffed research groups;
- foster the dissemination of best practice within the University in relation to research and research planning;
- promote interdisciplinary research both within the University and in collaboration with European and international partners.

IPKL

The RED19 panel notes that all these points have been addressed to considerable effect by IPKL. The greatest challenge has been to create strong synergies within the department. Nonetheless, the current more dynamic system of focused research grouping within and across the three broad research areas points to an attempt to deal with the strong boundaries between the original research environments.

IPS

IPS has also largely addressed these five points. The challenges that continue relate to the often-conflicting demands of teaching and research for the majority of staff and the need to consider more flexible configurations of research groupings.

IDPP

In IDPP efforts have been made to address the RED10 feedback, through for example the appointment of a new chair in teacher education and the appointment of a Visiting Professor to help start the ESD initiative. The newly reconfigured environment is working towards tackling all five RED10 points.

F2. Other matters

The major concern, which is not covered directly in the questions, relates to the need to appoint non-research active staff to meet the need for increased teacher education numbers, coupled with the lack of core funding for research accompanying the increased student numbers.

CONCLUDING RECOMMENDATIONS

Some detailed suggestions were offered in section A1, here the panel lists some more general recommendations.

- i. Ensure that research is given equal priority in staff recruitment and timetabling.
- ii. Develop coherent policies for staffing, publications, and impact that are discussed across departments.
- iii. Look across departmental and research grouping boundaries for research synergies.
- iv. Build coherent programmes of research that combine a variety of funding sources.
- v. Require research groupings or environments to undertake strategic research planning, which includes resource implications and which allows departments and the faculty to reflect on the quality of support provided.
- vi. Ensure that the organisation of research groupings is flexible enough to respond to current and future societal demands.
- vii. Orient more towards potential EU funding and a wider focus on international collaborations.
- viii. Continue to develop collaborations with other faculties within UGOT.
- ix. Establish and sustain research mentoring systems in which more experienced scholars have clear responsibilities in relation to ECR.
- x. Clarify what is meant by research leadership within departments.
- xi. Enable colleagues to have time to capitalise on their recent PhDs.
- xii. Consider creatively how teaching can be organised to liberate time for research.
- xiii. Enhance the role of the faculty in creating and supporting departmental strategies.

The panel also suggests that UGOT should:

- i. revisit the departmental funding model currently used; and
- ii. reconsider the effectiveness of its hourglass model for ensuring high-quality research environments.

DEPARTMENT OF FOOD AND NUTRITION, AND SPORT SCIENCE

228	Introductory Remarks
228	Section A – Background and Research Standing
228	A1. Background
228	A2. Research standing
229	Section B – Leadership
229	B1. Leadership
230	B2. Recruitment
230	B3. Career structure
231	B4. Funding
231	B5. Feedback and evaluation
232	Section C – Complete Academic Environment
232	C1. Collaboration
232	C2. Relevance and impact on society
233	C3. Research-teaching linkages
234	Section D – Academic Culture
234	D1. Academic culture
234	D2. Publication
235	D3. Facilities and research infrastructure
235	D4. Transverse perspectives
236	Section E – Support
236	E1. Internal research support
237	E2. Faculty and University-wide support
237	Section F – Other Matters
237	F1. RED10 evaluation
239	F2. Other matters
239	Concluding Recommendations

INTRODUCTORY REMARKS

During the site visit in April 2019, we interviewed four PhD students in a group, six lecturers/senior lecturers, and six associate professors/professors individually. They represented the whole department and its different thematic research groups. The interviews were structured around questions that had risen when reading the self-evaluation. Not all interview subjects were asked all questions in our interview guides. We seemed to reach a saturation point in the answer; there were similar views and answers to many of the questions, and, therefore, our recommendations are not based on single opinions.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department was established in 2010 after merging one department with part of another department. It seems that the potential of this merger has not reached its full expectations and possibilities. The organisation is still very divided into Food/Nutrition and Sport Science, and it's not clear what changes have been implemented in the organisation after the merger. The role of the Centre for Health and Performance (CHP) in the department is particularly unclear – it is an active unit with its own initiatives, and its integration with the remaining department is not clear.

The organisation of the department should support the integration of research in Food/Nutrition and Sports Science/CHP.

There seems to be a need for a vision and more strategies and plans.

A2. Research standing

The research is diverse and in 2016–2017 was organised as themes (5-1 + 2) based on individual research interests. Even though the research questions per se are relevant, the development of the research themes does not seem logical or easy to understand. Some of them have similar names and research areas. In some cases, similar research areas studied with different methods now belong to different themes. The size (number of researchers and/or publications) of these themes are also varied.

Our recommendation is that the department should consider grouping the research themes into fewer and more comprehensive and integrated groups, for instance problem-based themes, like health promotion, human performance, etc.

Some research within the department is below average due to the lack of internal and external funding, which has resulted in a lack of research time. Last year's budget decision to withdraw all time for research due to the financial situation was deleterious. Other research has an above average standing, both in terms of

impact and in number of articles. However, this is not fully acknowledged in the bibliometric evaluation performed by the faculty.

Our recommendation is that the department, in collaboration with the faculty, fulfill the intention of the agreement on work time for university teachers, which states that at least 25% of teachers' time should be for competence enhancement and research. The faculty should also rank research in relation to their fields and specific topics and not in relation to the faculty it belongs to.

There is not a clear vision of aspirations for new research initiatives for the whole department. Instead the aspirations for new research initiatives can only be seen from the information on submitted research applications – thus mainly on the individual level of researchers, except for CHP which has performed a SWOT analysis and made an action plan following this.

We recommend that a vision and strategy for research be made for the whole department, with a particular aim of integrating diet and physical activity.

Even though the department has had discussions about a future vision, these discussions have not resulted in a common vision.

Our recommendation is that this work be prioritised and a vision put in place before the end of the year.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The responsibilities and activities of Head of Department, Deputy Head of research and Directors of studies are defined.

Weaknesses

- The research theme groups seem diverse and partly too small in size, which could be due to a lack of leadership and common vision of the department. Some teachers (mainly lecturers at all levels) said they were missing information and integration in the research environment, at least partly since they are not part of the DOP group (*professorer och docenter*).

Recommendations

- Our recommendation is to organise the research within the department into larger research groups that are based not only on ongoing research projects, but on a clear vision with an integration between the current parts. This requires strong leadership with the proper tools to take actions.

- We also recommend that all teachers be part of the collegium and that all teachers have the opportunity to remain active researchers in all circumstances.

B1.2 Faculty/University level leadership

Strengths

- Some of the faculty funding is allocated as strategic support for defined research activities.
- Research activity is a basis for faculty funding.

Weaknesses

- It is unclear how the distribution of activity-related research funding from the faculty is executed.

Recommendations

- Our recommendation is that activity-related research funding should be in relation to each research field and not the same throughout the whole faculty.
- We also recommend that the faculty find ways to provide help with grant writing and other questions related to research applications.

B2. Recruitment

Strengths

- The use of national and international announcements of all positions has resulted in international recruitment from several countries.

Weaknesses

- The lack of an existing vision might have an impact on recruitment. Are those who have been recruited really the people needed in the long run?

Recommendations

- The lack of vision leads to a lack of strategies, which can lead to ad hoc recruitment, and which is deleterious for the future. We thus once more recommend that a vision and strategy be formed.

B3. Career structure

Strengths

- Funding for competence development and travel (also for PhD students).
- Courses at the university.

Weaknesses

- Imbalance between teaching and research – limited and dispersed time for research.
- No strategic policy to develop further career opportunities for PhDs.
- No mentoring schemes for senior lecturers to develop in research and research supervision.

Recommendations

- Special attention should be given to the postdoc phase, e.g. (senior) lecturers need enough time for their research. They should be involved in PhD-training as co-supervisors, and actively involved in research planning at the department level. They should also be assigned a mentor for carrier development.

B4. Funding

Strengths

- Strategic funding for PhDs as co-funding from the faculty.

Weaknesses

- No written funding strategy in the department? Fluctuating internal funding and limited external funding. For example, no research time for a whole six months in 2018, and also (for senior lecturers) in the spring of 2019.

Recommendations

- Our recommendation, again, is that there is a need for both a vision and a strategy to support decisions on funding.
- Actions to support research applications need to be taken at both the faculty- and department level. Support from the faculty level for strategic work aimed at finding relevant strategic partners outside the university could also be of value.

B5. Feedback and evaluation

Strengths

- The university is subject to regular evaluations.

Weaknesses

- The department does not conduct systematic evaluation of research environments and outcomes, resulting in limited feedback.

Recommendations

- We recommend systematic reporting and evaluation, together with a quality system within the department for providing feedback on applications and research. A type of peer-review system within the department.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The department has extensive collaboration within the University of Gothenburg, and a long tradition of participating in international projects.

Weaknesses

- This seems to be largely based on individual engagement; the department has not supported, promoted or provided incentives for collaboration.

Recommendations

- Collaboration lacks strategic decisions due to the lack of a vision.

C1.2 Collaboration with external stakeholders

Strengths

- PhDs have been financed in collaboration with external stakeholders.

Weaknesses

- This seems to be largely based on individual engagement.

Recommendations

- The lack of a vision results in a lack of plans and guidelines for research collaboration. The vision and long-term goal for collaboration should be put forward.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- The department's research areas have a high societal interest and impact.

Weaknesses

- The department has no communication strategies, policies or rewarding mechanisms to utilise this high interest from society.

Recommendations

- Develop strategies and a model of procedure for communicating with society.

C2.2 Research relevance and impact on society

Strengths

- Nutrition and physical activity are important themes in society – stakeholders

have used research outcomes. Agenda 2030 sustainability goals are applicable to research within the department and to some extent taken into account in research priorities.

Weaknesses

- Nutrition and physical activity are important to the sustainability of society. This could be addressed to a higher extent in the research themes. No strategies or planned initiatives to improve research relevance is in place.

Recommendations

- Our recommendation is that the impact of the research performed in the department be more visualised in applications and research reports, as well as in communication with society.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Master's students are often involved in research projects and publications. Courses on advanced level.

Weaknesses

- The department does not have a proper master's programme. The master's students choose single courses and combine them. There are few students in the programme. The department has limited marketing of the master's programme.

Recommendations

- Develop a strategy for recruiting master's students and for communications regarding the master's programme, both online and directly to the department's undergraduate students.

C3.2 Doctoral education

Strengths

- Increase in PhDs in recent years.

Weaknesses

- The number of PhDs is low in parts of the department. It might be a weakness for the department to have two different PhD programmes, given that they are similar and partly taught together. A big weakness of the programmes is the unnecessary high requirement of course related credits (75 ECTS).

Recommendations

- Having PhD programmes in two disciplines needs to be evaluated. We think that one programme in "*Kost- och Idrottsvetenskap*", with fewer course related credits (e.g. 40 or 60), would allow more time for research and increase

the critical number of PhD students. This would also increase the potential for multidisciplinary PhD seminars and theses.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- Parts of the department work with team-building and focus on an inclusive academic environment and collegial, creative, and ambitious research meetings that include external stakeholders.

Weaknesses

- The structure of research meetings excludes part of the collegium (senior lecturers), which risks leaving them without a research environment to thrive in.
- The lack of career plans for new PhDs with goals for development and mentorships. See earlier notes.

Recommendations

- The difference in academic culture between CHP and the rest of the department needs to be addressed to develop a notion of “being a member of one community” (IKI).

D2. Publication

D2.1 Publication strategy

Strengths

- It is a strength that open access is encouraged, and that PhD students get funding for open access.

Weaknesses

- There is a relative low number of publications in some groups of the department, especially during the postdoc period. This may reflect too little research time.

Recommendations

- Employees in the postdoc period, irrespectively of if they are employed as lecturers or not, should in all cases be encouraged to publish research articles in peer-reviewed journals. This should also be rewarded in the activity related part of the department budget. Thus, the award system should be changed as stated before.

D2.2 Analysis of bibliometric data

Strengths

- In recent years there has been an increase in publications, and in Level 2 publications.

Weaknesses

- Teaching responsibilities are especially high for some and subsequently too little time for research leads to very few publications.

Recommendations

- The activity related part of the department budget should promote publishing in peer-reviewed journals in order to reach the international community. Thus, the award system should be changed as stated before.

D3. Facilities and research infrastructure

Strengths

- The infrastructure in CHP is important for the whole department's ability to perform multidisciplinary research.

Weaknesses

- The limited research budget leads to different views on the need for research infrastructure, which has not been addressed in strategic work.

Recommendations

- A recommendation is to focus on inner strategic work to create a sense of belonging to a community, where the infrastructure exists for the common good and for enabling both more individual and collaborative research. The faculty could also support research infrastructure with for example, statisticians and a grants office, to be shared with the other departments.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

There is very little written on gender equality in the self-evaluation.

Weaknesses

- There is an imbalance in the number of employees: Food and Nutrition has a majority of women employees, and Sport Science has a majority of men.
- There is a difference in the number of articles published by female and male senior lecturers; this might relate to the fact that the female lecturers do more administrative departmental work.

Recommendations

- Our recommendation is that the previously suggested career development plans

for (senior) lecturers address this by ensuring equal research time for male and female employees.

D4.2 Internationalisation

Strengths

- All recruitments are internationally advertised. PhD students have good opportunities for travel and participating in international conferences through departmental and university funding as well as grants.

Weaknesses

- Due to the lack of a vision and strategy, it is not clear to all staff what internationalisation entails.

Recommendations

- The department needs a vision and strategy concerning internationalisation based on the internationalisation strategy of the faculty and university.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Previously, those without external research funding have also had time allocated for research.

Weaknesses

- Due to the economic situation all research time was withdrawn. The department has had very limited funds for internal research support.

Recommendations

- Since university education is supposed to be research-based, and a PhD is required for a senior lectureship, all teachers should have the opportunity to conduct research. All teachers should also, according to the employment contracts, have 10% development time.
- The problem for the department and the faculty is the limited research funding, due to the allocation of research funds differing between the faculties. Funding allocation should not be based on a historical system, where new faculties are most often allocated the least money. The allocation should: 1) be based on the number of students, to give all teachers equal opportunities for conducting research, and to thereby provide research-based education; and 2) be more performance-based.
- The department should consider developing incentives for performing research and to stimulate external funding applications that support the allocation of funds to the university.

E2. Faculty and University-wide support

Strengths

- The university participates in the Erasmus+ programme.
- The university has a Grants and Innovation Office.

Weaknesses

- The use of the faculty/university support, for example the Grants and Innovation Office, is very limited. The communication concerning funding opportunities is not well developed.

Recommendations

- The small size of the department should be taken advantage of for improved internal communication, and a strategy should be developed.
- If the department were to have an incentive-based research budget, this could lead to a higher use of both university and faculty support for research and funding applications.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

RED10 was performed before the merger of the department.

RED10 recommended developing synergies between the two parts. Extra support was needed to create synergy. The focus on health promotion seemed promising. RED19: From the self-evaluation it seems like limited synergy has been created and there has not been much extra support to address this. One of the five main research themes in the department is health promotion and it is only this research theme that clearly combines food and physical activity.

Our recommendation is that the department include the issue of synergies in its strategy work and, for example, focuses on health promotion as a multidisciplinary research theme.

RED10 recommended organising research activity into research groups (minimum 2–3 senior researchers – combining dietary and sports science) instead of individual researchers.

RED19: In 2016–2017 the department was organised into five research themes based on research interests. One of them did not continue, and during that period of time two additional research themes were developed. Health promotion was a research area during RED10 but the others have changed somewhat – because of other research projects?

Our recommendation is that the department also merge some of the other themes to create larger groups with multidisciplinary approaches. A strategic plan or

priority plan should be developed, in which the relations to study programmes are also made visible.

RED10 recommended focusing on building multidisciplinary research groups, increasing collaboration between researchers and stakeholders, inviting and attracting guest researchers and establishing international research projects. There needed to be a clearer strategic plan, incentives to undertake research, and a new quality control system.

RED19: Collaboration within the rest of the university has been multidisciplinary. Within the department there are a very limited number of multidisciplinary research groups. The department has not supported, promoted or given incentives for collaboration.

Our recommendation is that, since it is not evident that there is a strategic plan, the department should identify their vision and develop a research strategy.

RED10 recommended exchange of students, teachers and researchers with other universities.

RED19: Two staff members have received 3 months' faculty grants for international research visits. Some PhD students have spent 2–3 months abroad. International visiting professor (50%, 1.5 years).

We find that this is not the highest priority at present as there are other more important issues to address.

RED10: goal of a national centre for research on diet and physical activity – stronger academic leadership and internationalisation are important. Too small to achieve ambitious goals – critical mass needed. Visions for future still diffuse – needs to be deepened. Without enough resources and real collaboration with other disciplines it will be hard to survive.

RED19: The department has arranged discussions about a vision, but has reached no clear vision and has stated a need to unify efforts and strategies into a common vision. CHP has a vision to advance into becoming top-level internationally, and has performed a SWOT analysis to develop focus and vision, which resulted in a plan.

Our recommendation is that the whole department prioritise the development of a vision and a strategy to implement the vision.

RED10: interactions with society (taking part in government commissions, popular science articles) should be increased somewhat.

RED19: Taking part in government commissions? Popular dissemination?

We think there is a lot of interaction with society but since these are more ad hoc, and not grounded in a vision and strategy, the outcome of this interaction is limited.

F2. Other matters

The panel has not separately addressed this question.

CONCLUDING RECOMMENDATIONS

Our recommendations for the department are the following:

- A common vision for the department, IKI, (particularly to integrate nutrition and physical activity and integrate the work of CHP with the rest of IKI) is needed. Our recommendation is that this work be prioritised, with a vision in place before the end of the year.
- There are too many research themes and some seem to, to some degree, be duplicates. Our recommendation is to reorganise the themes into perhaps three major themes.
- Today some teachers don't have research time and do not feel that they belong to the research community of the department. They are neither part of the PhD seminar group, nor the DoP group. The importance of research should be a priority throughout the department, allowing everyone to participate in discussions even if they themselves do not currently perform research. More internal collaboration is recommended, including with those who do not have their own research project, since they can be involved, for example, as co-supervisor.
- The calculation of activity-related budget concerning publications should be changed to the same system used when the university receives its funds.
- The return on research grant applications is too limited. Skills training in research grant proposals should take place, as well as quality assurance of applications (reading and commenting on each other's applications).
- There is a great potential for collaboration between, for example, physical activity and nutrition, which is not used to its full potential. More internal collaboration could lead to more external collaboration, which in turn leads to more funding opportunities.
- Both postdocs and senior lecturers early in their career are left without belonging to a group and at worst they are left outside of the research community. There is thus a need for career development plans for this group.
- The limited time for research, particularly for lecturers, has to be dealt with both through better grant proposals but also through the work of the faculty and university.
- The amount of course credits needed for PhD-students is very high and should be lowered to increase the time available for working with PhD projects. Merging the two PhD programmes into one could also be beneficial for both the PhD students' and all employees' sense of belonging to IKI.

**PART II
PANEL REPORTS**

**FACULTY OF FINE,
APPLIED AND
PERFORMING ARTS**

FACULTY OF FINE, APPLIED AND PERFORMING ARTS

244	Introductory Remarks
245	Section A – Background and Research Standing
245	A1. Background
248	A2. Research standing
257	Section B – Leadership
257	B1. Leadership
259	B2. Recruitment and B3. Career structure
261	B4. Funding
263	B5. Feedback and evaluation
263	Section C – Complete Academic Environment
263	C1. Collaboration
267	C2. Relevance and impact on society
267	C3. Research-teaching linkages
269	Section D – Academic Culture
269	D1. Academic culture
269	D2. Publication
270	D3. Facilities and research infrastructure
271	D4. Transverse perspectives
272	Section E – Support
272	E1. Internal research support
272	E2. Faculty and University-wide support
272	Section F – Other Matters
272	F1. RED10 evaluation
272	F2. Other matters
272	Concluding Recommendations

INTRODUCTORY REMARKS

The panel started to read and analyse the self-evaluation reports and other information (which were sent beforehand by University of Gothenburg (UGOT)) in early January, and shared initial emails, Skype conversations and thoughts on these materials via Google Docs in February and March. The site visit took place on 1st–5th April, 2019. In Gothenburg, the panel met various groups who work in research: PhD candidates, postdoctoral researchers, lecturers, professors, senior researchers, Heads of Department, and other faculty members of KF (the Faculty of Fine, Applied and Performing Arts) and UGOT. These discussions, together with the materials provided – such as self-evaluations, statistical data, bibliometric data, strategic plans, etc. – gave a good overall image of the research activities at KF. We posed the following general questions to each group of researchers and other faculty members we met:

1. Please share with us your experiences of the academic culture in your university. What would you like to do in the field of research, and how do the existing structures of the university support these aspirations?
2. How is artistic research related to other fields of research (basic, pedagogical, applied, critical theory, etc.) in your department, and do you think there is enough cross-disciplinary or cross-artistic research in the faculty?
3. How is high-risk research and art supported by the department? Any problems with this?
4. How do you think the career structures in the department/faculty support sustainable research environments? Any suggestions for changes?
5. How important is publication of research and international research dissemination?
6. How is collaborative research supported within the faculty (across departments and other actors in UGOT) and outside the university?
7. How would you define what constitutes quality in artistic or design research and research in art education? Are there quality criteria discussed/developed in your department or the faculty more generally?
8. Can you describe the importance of the several committees/boards and other administrative organisation for your researcher activities?
9. How is your research funded? How did you get your current funding? How are you supported in applying for and gaining research funds?
10. A question about ethics.

In this report, the panel wishes to explicate in more detail the observations we made based on the information we gained during the site visit and the materials sent to us beforehand.

We sincerely hope that the insights we share in this report will be of help in the attempts to further develop this exceptionally interesting new faculty, which has managed to create very promising new research environments (with an emphasis on cross-artistic research) in a short period of time.

We also wish to underline that even though our comments are sometimes written in a critical tone, our intention is always to show respect for the highly competent staff of the departments, and to share our passion for the analysed field of artistic research. We also think that the faculty has very good possibilities for growing into an even stronger international actor. Supporting the development of this field of research is also in line with international development of qualitative /art(istic) research, and presents important promises for the futures of both science and art.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Research organisation in all three departments: Academy of Design and Crafts (HDK), Academy of Music and Drama (HSM) and Valand Academy (VA) has evolved a lot since the RED10. From a broad perspective, the faculty has clearly managed to establish, within a very short period of time, an internationally interesting new research environment that is clearly able to produce high-level, even pioneering research, in the fields of artistic research, applied arts research, basic (art) research, and pedagogical research.

A general research environment has already been created (a doctoral school, seminars, mentoring), supporting also the growth of a second generation of artistic researchers. Moreover, new administrative entities have been created to better support the creation of sustainable research environments. In sum, all this has created a stronger research context and increased the number of research collaborations. The development of the faculty since RED10 is hence very positive, and promises a lot for the future of the faculty.

At the same time, we do recognise that all three departments are still in the stage of developing into fully mature research environments, and some important development work needs to be done before the faculty has reached this stage.

Heavy administrative structures

To begin with, it seems to us that since RED10, the administrative structures of the departments and KF have become quite heavy and complex. A general overview of faculty research governance in the form of a schema would have helped the panel understand the interrelations between councils, advisory committees, leadership groups, boards and units. Additionally, it would have let the panel members see more clearly who is in charge of decisions amongst the deans, pro-dean, vice-deans and heads.

During the site visit, it became very clear that the staff suffers from the current amount of administrative work, and that the chronic lack of research time is hindering development. The department heads and heads for research also seem to suf-

fer from this current situation. Some of them have strongly expressed that they need more freedom to organise their administrative structures (more decision-making would also enable them to “streamline” administrative structures and take into account the specific needs of art/istic research). Thus, it seems relevant to suggest that the *University of Gothenburg should consider strengthening the departments’ autonomy in terms of research management. At the same time, it is also very important to seek new means for supporting cross-artistic and cross-disciplinary cooperation, and to strengthen the ties between the three departments of KF.*

Need for better self-identification of research

At the departmental level, research activities seem to be carried out within units that are numerous and small. Most units are project-based, with no guarantee for mid-term or long-term sustainability. Although this organisation into smaller units also has positive aspects, such as genuine opportunities to tie research topics to basic education (BA level and MA level), the risk of discontinuity is very high. On the one hand, very few postdoctoral researchers or senior researchers actually work within each unit, while on the other hand, some unit managers seem to lack research competence. This leaves researchers in a situation in which they compete for funding, resources, time and attention within a context that is education-focused and has little critical mass for research.

The panel also noticed that the self-identification of the faculty as a research organisation is still weak, even though all departments are producing interesting research. Better explicating their existing research profiles would perhaps also make it easier to cooperate with other faculties and universities. Better self-identification and self-presentation in the field of research could also support the creation of fresh cross-discipline research groups, shared agoras, and educational activities.

Moreover, there is no clear perception of the strategic importance of the focus areas of artistic research in the general positioning of the faculty. More in-depth profiling of research topics, detailing how they relate to art practices and how they interrelate, would help steer the evolution of a truly shared and more sustainable interdisciplinary research environment. It would also strengthen the value and visibility of artistic research within the larger UGOT research environment.

We suggest that the departments draw a diagram of existing research profiles. For example, how many people are conducting artistic research, basic research, pedagogical research, mixtures of all these, or something else? We also advise the departments to create shared visions and strategies for research, not least with respect to the new department that will be created when VA and HDK merge in 2020.

Using such an updated self-analysis, we believe, could make it easier to see how the three departments might better cooperate with each other and with other faculties, and what kinds of strategic aims the faculty and departments might need to formulate next.

Unequal research-time allocation

Discussions with all research groups made it clear that there is a serious problem regarding research-time allocation. While equal distribution of research time seems to be the principle, it is not achieved in practice.

This has led to a general perception of unclarity and unfairness amongst some groups of researchers (especially postdocs).

The faculty should secure interconnections between researchers and build a supportive peer-environment, while guaranteeing a reasonable number of working hours for researchers. The departments could also reorganise their educational structures in a way that does not lead to decreased quality, but to teach differently and less. The savings caused by these thoughtful reorganisations could be used in the development of sustainable research environments.

The Research School and other initiatives are already at hand, but research-time allocation as well as general “team spirit” should ensure that seminars and other events attract consecutive attendance.

Very low research budget

One more critical observation is that the faculty’s resources for research are very low, compared to the other seven faculties at UGOT.

The university should seriously seek new possibilities to invest more resources in the research development of this highly interesting new faculty, and to reorganise the administration of the departments / faculty in a way that enables the staff to do more research.

High overheads are a problem

All the research groups we met made it very clear that the exceptionally high overheads are a hindrance to applying for research funds. Therefore, it seems evident for us to suggest, that:

The faculty will not be able to solve this problem alone, but needs compensation for the exceptionally high overheads from the administration of the University of Gothenburg.

PARSE is a successful initiative that has promising future possibilities

Since RED10, the faculty has created a successful new platform for publishing and presenting artistic research. Today, this project has grown into an internationally-recognised flagship for research dissemination and conferencing. PARSE was originally developed as an interdisciplinary platform to serve the research of all three departments, however the panel is compelled to point out that its identity still lies very strongly in artistic research and fine arts. As to the future development of this platform, we recommend that:

The faculty should take advantage of the international, excellent reputation of PARSE and develop it into a well-functioning platform for all three departments. It will be necessary to broaden the scope of research PARSE promotes, but it is also important to maintain its footing within artistic research as one of the research strands the faculty promotes. It would also be useful to clarify the role of the PARSE professors in fostering the research environment, as this is not too clearly conveyed at present.

A2. Research standing

Good basis

All the researchers interviewed by the panel provided a very good general impression. They were dedicated and very willing to improve. Research conveyed deep and important values for all of them, from PhD students to senior supervisors. Senior researchers with international careers, as well as local artists or designers who began their research activities in recent years, all testified about research with deep enthusiasm and a strong understanding of the importance of research for art and design, education and society.

It is nevertheless not easy to assess the quality of research – especially for a faculty where artistic research is at stake – since very few artistic outcomes were provided. Bibliometric data, as well as online publications on PARSE and other websites, provided insights from which it was possible to assess the research level as average by international standards.

Low resources and lack of realistic funding strategy

The quality of existing international collaborations, as well as the artistic and intellectual quality of some researchers, is restrained by the lack of secured research time allocated on a regular basis. Irregular yearly budget allocations are an obstacle to the strategic development of major new projects. The ability to capture external funding, which has not been massive until now, seems to be overestimated, especially in the sense that the faculty does not show a strategy for augmenting such funding.

A shy future vision

The faculty's future vision for research development is very dependent on the hopes created by the fusion of Valand Academy (VA) and HDK and the construction of a new building. But there is no clear view as to how this merger will provide more than simply reduced administrative costs. Future vision is vague (more projects, more funding and collaborations) and it seems unrealistic to simply add more topics, units, projects, without sharpening the strategic vision. Paradoxically, this does not lead to a clear understanding of how the overarching interdisciplinary research topics can become the faculty's strong points.

Need for a scale-change in resources

The faculty has realistically identified the challenges it must face in order to en-

sure a good research standing, compatible with international standards: on the one hand, the need to create a shared academic culture and supportive dialogue between researchers across its units, and on the other hand, the currently very low research resources. Achieving a higher research standing will require commitment from the university, which must also cope with the fact that sufficient external funding is not always available. In other words, the faculty should be strategically supported with sufficient resources to secure that its environment hosts researchers with stable research positions and sufficient research time. Only in this way will it be realistically possible to achieve sustainable research environments, successful applications for external funding, sustainable productions and significant research output, and consolidated international collaboration, all of which can lead to an overall high research standing of the departments/faculty.

A strategic opportunity for institutional positioning

Artistic research and research produced in the environment of art-based education universities is quite young but developing rapidly worldwide. If the University of Gothenburg wants its Faculty of Fine, Applied and Performing Arts to be an international front runner, it needs to support this area with sufficient resources for research.

In the following section, we wish to share some more detailed observations, questions and recommendations regarding the three departments' research activities, profiles, and strategies.

HDK – a dynamic, structured and convincing research standing

HDK's research profile is rich and well developed. The department has built its research on the overarching research agenda of: 1) "Craft and Society" – strong and internationally very interesting research competence in this field, and also pioneering new perspectives on writing and making/handcraft, for example); 2) "Design, technology and organisational change" – focusing on links between business administration, especially management and organisation studies, and design, this research profile addresses a variety of topics, which are broadly connected to organisational change.

Moreover, the department presents four topics as the main interest areas of its research:

1. "Art and Politics" – focusing on the dynamics of power and change produced by the interaction of art/aesthetics and politics; discussing such issues as migration, heritage, sustainability, carceral design and child culture design. The profile includes six active research groups and five PhDs. The academic quality of publications in this area is good.
2. "Craft and Society" – the issues researched within this context combine a wide variety of empirical phenomena, such as tacit knowledge; material resources; labour and the global south; definitions of skill; community, empathy and care;

sexual violence; writing; and materials and architecture. There are six PhDs and four active research projects at the moment, and the number and quality of publications are both very good.

3. “Design, technology and organisational change – investigates the intersections of business administration (especially management), organisation studies, and design; addressing a variety of topics that are connected to organisational change (e.g. sustainability, circular economy, digitisation, place branding, and co-creation). Research on these topics is typically interdisciplinary and reaches out of the traditional scope of qualitative studies.

An impressive example of this is the interdisciplinary research with the Business & Design Lab (BDL). The research centre is led by an externally-funded professorship devoted to the study of this specific area. Various collaborative cross-discipline conferences, seminars and projects have been co-organised between HDK and the Department of Business Administration, and a number of doctoral students are conducting research within this framework.

Another important international research initiative in which BDL participates is the international DESMA network, whose main aim is to build a community for connecting design, management, academia, and practice. Strategically, this initiative has sought a sustainable and vibrant community across Europe that combines in its activities high-quality research in design and management, and supports collaborations between academia and practice.

In addition, HDK has high expertise in the field of digitisation – in particular the automation of professional creative networks. In this field, the newly appointed Professor Elena Raviola is leading an interdisciplinary project on “Robotisation of professional work”, and there are other interesting current projects, such as “Organising Design and Designing Organisations for Change”, led by Anna Rylander Eklund.

As to other collaborations, the department has several interesting research collaborations with departments and research centres both within and outside the university, which are producing new knowledge in topical/interesting/strategic areas. See also C1.1.

The department’s cooperation with other entities, such as schools and hospitals, has led to the development of new means of knowledge production that impressively meet the contemporary emergence of art-based or design-based research, see section C.1.

The department’s societal impact and quality of research is above average. A strong point lies in the department’s ability to foster cross-artistic collaborations for research projects that focus on issues such as tacit knowledge, hospitals and care, the relations between crafts, gender and sexuality, digitisation, robotics, and

the issues of creative management. Collaborations are also above average, both in terms of quality production and complexity of actors. The quality of publications is also very good. All this is very convincing and relevant.

As to our recommendations for HDK, we suggest that the department:

- Invest more resources in research, allocate a guaranteed and equal research time for staff, and develop a stronger career structure for researchers.
- Pay specific attention to mid-career researchers' work time, and reorganise their teaching and administrative tasks in ways that support doing more research.
- Carefully prepare the integration of VA and HDK, and create more shared research strategies that will support the creation of even stronger research environments and a qualitatively high level of cooperation.
- Seek new means to solve the problem of high overhead costs together with other departments and UGOT.

Valand Academy (VA) – good research and high competence, but with a somewhat narrow perspective

VA has recently built its research profile on the overarching research agenda of “Art and Political Imaginaries”. This heading includes two profiles: 1) “Art and the Public Sphere” (with: The Curatorial, Public Art, Queer Practices and Imaginaries, Art and the Environment as sub-profiles); and 2) “Critical Arts Pedagogies and the Political” as the second profile.

VA is clearly a strong actor in its field of research, and everything needed for the “above average” level of research production is already there. Yet, the department needs to further clarify its identity as a research organisation, and to extend its research profile, in order to better meet the complexity of the field of visual arts research (we will explain this better below). In its self-evaluation report, the department does not present its academic aspirations and passions very well. Instead, it emphasises – even too strongly – the importance of networks and money, as if they were strategic goals for research in themselves.

VA researchers cooperate with several networks focused on issues such as public art, queer practices and imaginaries, human rights, ecological issues and the environment. At VA, an internationally very interesting expertise in the field of critical arts pedagogies has emerged. The department runs an impressive project called the Children’s Film School, which has grown from pedagogical experiments into a doctoral and postdoctoral research environment. Locally, the importance of this long-term project is above average.

The research profiles at VA are very convincing in their aspiration to produce knowledge on social life and possibilities for counter-hegemonies, as well as in their fostering of critical pedagogical models, such as the idea of co-learning in art and critical art pedagogy. It is hence easy to see why political aspects are so essential for their research activities.

Yet, reducing all of VA's research activities under the "political" label is also problematic and might, at worst, even threaten the ideal of freedom of research and art – or at least estrange the academy from the diversity of artistic research interests, as well as the quickly evolving milieus of contemporary art, art studies and literary composition. Moreover, this narrow focusing does not only limit future – and hence unknown, or even unimaginable – research opportunities, but might at worst produce research outcomes that allow little room for actual art production, in favour of highly conceptual textual productions.

As to the department's publications and research profiles, these are more precisely:

1. "Art and the Public Sphere": Curatorial – this profile is not very well defined in the self-evaluation report, and its academic aspirations, in particular, remain somewhat unclear. Listed under the profile are two current PhDs and one completed art-based research project. VA's former Head of Department has published two co-edited international anthologies under the profile, and its publication list also includes a visual book on photography, and an art project (four publications in total).
2. "Public Art Research" – this profile is mainly defined by its networks, previous activities and an upcoming "special issue" in 2019. At the moment, there are no active research groups – the two projects that are listed as "active" will both be finished by 2019. Seven PhDs are linked to the profile. Five published texts have been listed since 2013 in this area.
3. "Queer Practices and Imaginaries" – this profile includes one project completed in 2016, and two PhDs.
4. "Art and the Environmental" – this profile is better described in terms of research aims, and includes several important aspirations that are linked with topics such as disturbed ecologies, environmental art, sustainability, environmental visual culture, etc. There is one very interesting postdoc research project funded by VA in this area, two PhDs, and some plans to start new research projects. Publications seem very interesting, but the quantity is quite low.
5. "Critical arts pedagogies and the political" – artists, especially those in film directing, are aiming to generate original educational projects, and to transform pedagogical experiments such as the Children's Film School, into doctoral and postdoctoral research projects.

VA mentions the Children's Film School as an active research project, but it is a little unclear whether this project includes research money or staff dedicated to producing research. Similarly, a seminar on "critical pedagogy" is mentioned – but it seems that this is not, properly speaking, an active research group. Two articles and one art work are mentioned as publications produced within this profile.

In its self-evaluation report, VA mentions several networks with which it plans to write funding applications in the future. These aspirations are all quite loosely described, making it difficult to assess their relevance and quality. As mentioned above, VA has also mentioned some projects as current, even though they seem to have finished some years ago.

One more slightly critical observation is that VA strongly emphasises its intention to capture more research funds through said networks, which in itself is also insufficient as an academic or artistic ambition. As to these aspirations, we wish to suggest that neither money nor collaboration are meant to function as aims or values in themselves, for the ultimate goals of universities should be high-quality publications and high-quality education based on those publications. We also wish to comment that, at worst, cooperation does not even enhance research quality, but can even be harmful.

Having said this, we also wish to stress that we do realise that just before RED19, VA has gone through major scale changes at the management level.

We are confident that these strategic visions and presentations of the department's research identity will be fruitfully reconsidered by the new management over the next few years.

We recommend VA to particularly consider the following issues in the future:

- There seems to be a need to reformulate the strategic aims of research in the department, and to consider how the merger with HDK will affect future visions and aims.
- Literary composition should be better integrated in the research profiles of the department. Support more cooperation between this field and the visual arts, and build connections to literature studies within the Faculty of Arts.
- Invest more resources in research, allocate a guaranteed and equal research time for staff, and develop a stronger career structure for researchers.
- Pay specific attention to mid-career researchers' and senior researchers' research time, and reorganise their teaching and administrative tasks in ways that support conducting research.
- We recommend that the department pay more attention to the academic quality of its self-evaluations, and the way it lists publications.
- Cross-discipline and cross-artistic research activities could be increased.
- Compensation for the high overheads is a hindrance. Seek new means to solve this problem together with other departments and UGOT.

Like all three departments, VA clearly needs more support from the university to be able to reach its strategic goals in the field of research (compensation of the high overheads, guaranteed working hours for research, tenure track system and increased investment in research, and the possibility to streamline administrative tasks in more autonomous ways).

In sum, we see that there is a lot of positive progress in the department, and both its societal impact and motivation for producing important research is high. We look forward to see how all this will be developed even further with the support of the new administration and the existing research staff.

HSM – expert in educational research and in performance practice, but a little too isolated

HSM has three main research areas, Music, Pedagogy, and Theatre and Music Drama, that were originally created to respond to the needs of the department's education programmes. The department has further profiled its main research interests under four headings: 1) Performance Practices; 2) Music Education and Arts Education; 3) Musical Performance and Historically Informed Performance Practice; and 4) New Music, Composition, Sound and Improvisation.

HSM's research is quite heavily linked to the local and national context, with some good international links. The department's educational policy is shaped by its strong ability to provide excellent practitioners of music education professions in Swedish schools. This situation provides a close link between research and teaching and learning, but leaves little room for interdisciplinary research or collaborations with other academic entities (with the exception of the Education Sciences). The future ERA (Centre for Educational Research in the Arts) will offer a good opportunity to bring some change to this.

The most important research profiles that HSM mentions are:

1. **“Performance Practices”** – in the field of performance practices, the department emphasises four perspectives: gender issues, performative strategies, acting methods, and post-dramatic theatre. Within these sub-contexts, the performers' (especially singers and actors) work processes, methods and conditions are investigated at both doctoral and senior researcher levels. Over the past few years, the research profiles have also expanded to include the director's position in collaborative post-dramatic works; opera relating to movement-based, site-specific and participatory performance; artistic issues in theatre, contemporary dramaturgy that embodies performative practices, and gender-oriented and intersectional perspectives. Not too many publications have been produced in this field recently, and perhaps partly due to this, the department has added a lecture/performance and a paper in a doctoral symposium to its list of publications (three pieces), which is slightly confusing. Three PhDs work in this field, but there seems to be no mid-career or senior researchers or research projects yet.
2. **“Music Education and Arts Education”** – pedagogical research is divided in the department into a) Music Education (encompassing all kinds of learning, experiencing and awareness in music, dance and theatre, but with music as the most established subject), and b) Arts Education (aiming to produce comprehensive scientific education that also prepares the students to take care of such

tasks in society where expertise in aesthetic forms of expression is of value – be they linked to visual arts, dance, theatre, sloyd, drama, or music). Within these two profiles, a wide variety of interesting topics, such as issues on governance, inclusion/exclusion, questions of democracy and social justice, and gender and intersectionality, are well established. Moreover, for a decade now, the department has been involved in projects linked to Swedish municipal music schools, emphasising issues such as equality and social justice. The publications in this profile are strongly academic, and present the strongest part of the department’s publishing activity. In sum, six PhDs work in these two fields.

3. **“Musical Performance and Historically Informed Performance Practice”** – this profile previously emphasised research practices created within the frameworks of the Gothenburg Organ Art Centre and PhD education in creative musicology. However, the profile is now moving towards a stronger emphasis on artistic practice (instead of reconstruction). Four PhDs and four research groups currently work within this profile, but there seem to be no academic publications – only two “papers in proceedings” published in 2017, and one artistic work produced in 2017. The expertise in this field is internationally exceptional, and also highly original. The upcoming move toward practice-based artistic research is also very promising, and we wait with enthusiasm to see where it will lead the research activities of this unit.
4. **“New Music, Composition, Sound and Improvisation”** –this field of research is also very interesting, and holds great potential for future research. In this profile, five researchers collaborate with external networks of practitioners and researchers. The profile is also connected to the publishing themes within PARSE. The department currently collaborates with various organisations, such as Sahlgrenska Academy, the Norwegian Theatre Academy, IPPT, FIRT, and NSU, the European network of community music research and KIL-forsk in Norway. There are five PhDs and three active research projects in this profile. The department has listed one two-hour performance, one presentation at the Swedish Research Council’s (VR) symposium, and one artistic process (2017) to their list of publications.

In sum, the number of academic and artistic publications is relatively low. Yet, paradoxically, it also seems that the research competence of the department is much higher than its actual output. From this we might only conclude that the research environment still needs development, together with support from the University of Gothenburg, the faculty, and the department.

The department could consider the exceptionally good cross-artistic possibilities within the faculty, and cooperate more with VA and HDK. There is also a huge potential for HSM researchers to contribute research results to major contemporary concerns (migration, digitalisation, etc.), to overcome the current disciplinary isolation.

We hence recommend that HSM:

- Invest more resources in research, allocate a guaranteed and equal research time for staff, and develop a stronger career structure for researchers.
- Pay specific attention to mid-career researchers' and senior researchers' research time, and reorganise their teaching and administrative tasks in ways that support conducting research.
- Reformulate the strategic aims of research in the department, and consider how the merger with HDK will affect future visions and aims.
- Increase cross-discipline and cross-artistic research activities.
- Pay more attention to the academic quality of self-evaluations, and the way of listing publications.
- Improve mid-career resources for performative studies.
- Seek new means, together with other departments and UGOT, for solving the problem of compensation for high overheads.

As to the academic culture of the faculty, all three departments have clearly progressed a lot since RED10, which is delightful to notice.

In all departments, however, there still seems to be a gap between faculty members who are researchers and those who aren't (or are regarded as "simply" teachers or teaching artists). Moreover, senior researchers seem to face far too heavy teaching missions, and postdoctoral teachers are not always able to teach within their areas of expertise. Not enough time or space is on offer for shared academic culture. There also seems to be some lack of understanding in how the institution credits different types of research (some scientific researchers seem discontent that artistic practice is counted on par with academic writing, for example). Last but not least, we experienced that there was little discussion on research space for practical artistic projects.

We hope that these observations will be of assistance to the faculty's attempts to further develop its research environments. There is already strong evidence of the faculty's ability to produce internationally high-level research in the fields of applied arts, artistic research, critical studies, and pedagogical research – and to act as a platform for creating new forms of cross-artistic and cross-discipline collaboration.

In the future, the University of Gothenburg would need to guarantee a reasonable amount of research time for researchers, and to find a solution for the high overheads that prevent many of them from applying for more funds. Tasks linked to education and administration would need to be decreased. There is also an urgent need to create identifiable outcomes and better-defined evaluation processes and dissemination strategies for research.

Once this is achieved, the faculty's importance as a research organisation will make an even stronger positive contribution to both national and international research culture, as well to the wider public domain.

As to the University of Gothenburg, it is essential to continue supporting efforts to create a new sustainable research environment in the Faculty of Fine, Applied and Performing Arts, and to see this development as an essential part of the university's strategic development.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The staff is highly committed and works long days to further develop pre-existing administrative structures. The competence of the staff is also high, and includes a rich variety of expertise. There is a pretty good number of international specialists in the departments, and the gender balance is good.

Weaknesses

- The university loads departments with demanding administrative tasks, but it does not seem to always provide specialists in the departments with decision-making power. At worst, this creates a situation in which administrative “line management” principles take over the ideals of academic leadership based on collegiality, which follows the ideal that leading experts have a considerable amount of decision-making power in steering their own activities in collaborations.

Recommendations

- We suggest that the university monitor how its administrative structures give autonomy to departments – and if the current situation needs to be improved. The Faculty of Fine, Applied and Performing Arts clearly has very committed and capable staff, who should not be used merely for an “advisory board” in decision making, if the university aims to fulfil its strategic goals with respects to “highest quality” in research and education.

B1.2 Faculty/University level leadership

Strengths

- UGOT leadership has aimed to develop the university as an important international research hub. The measures mentioned, such as identifying research profiles, establishing the UGOT Challenges centres and an external international advisory board for applications, quality indicators, and the Grants and Innovation Office, are all very good initiatives. The overall goals of the univer-

sity have had a positive effect on the faculty level. Through renewed leadership and related steering structure, the Faculty of Fine, Applied and Performing Arts has focused on developing research education and research for several years now. It is paramount that the faculty has responsible heads for research and a research board structure and this is also now the case. The shared Faculty Research Committee and pro-dean are important in securing strategic research planning and implementation. What is noteworthy is that there is support for applying for external funding and good initiatives for quality feedback for failed applications. Likewise, it is positive that indicators – whether bibliometrics or those related to artistic development work and artistic outcomes – have been established and are considered.

Weaknesses

- We received the impression that the general role of the faculties in strategic research development at UGOT is not very clear at the moment. It seems that the university's administrative structures quite heavily emphasise “top-down” structures in attempts to unify the strategic aims of the university. Since this seems to cause problems for the Faculty of Fine, Applied and Performing Arts (e.g. weak possibilities for creating administrative structures that could better meet the faculty's specific needs), the university administration should consider possibilities for strengthening the unique profile and “bottom-up” power / stronger autonomy of the departments.
- The faculty does not fully utilise research profiling in its strategic management of research organisation. Articulating the specificity of research at the faculty would further strengthen its position within the university, as well as in national and international contexts. Better research profiling could also illustrate why arts research currently requires separate support measures from the university. Seen from a slightly different perspective, research in the arts can offer other research fields innovative insights, approaches and fruitful forms of collaboration, while also being exceptionally capable of critically addressing societal problems in novel ways.
- Another issue is the role of collegiality, so essential to academic quality, that is weakly presented in the self-evaluation reports. They tend to highlight more of a “line management” approach to leadership (typical in the business world), without clarifying a notion of the kind of academic leadership that follows. Some critical worries result from this. What kind of power does this management style endorse? Does University Management wish to be a central management unit or to practice central leadership (the latter role should always be linked with collegiality– or if this link is cut, universities, as we now know them, would no longer exist)? How does the current form of management support collegiality and academic expertise as forms of leadership, and how does it integrate academic expertise/collegial leadership in university management activities?
- On the faculty level, research is lead through the Faculty Research Committee, the department research boards and the heads of units. It seems that on a unit level the intention is to connect research and education. However, heads of units (who might or might not be members of research boards and are responsible

for allocating funds) are not always sufficiently knowledgeable in research and resources, and tend to be allocated to education in the first instance and only secondly to research.

- This implies that on a departmental level, research might have to compete with education, when its position should be secured. While allocation of research time for researchers is meant to be the result of an acknowledged process of evaluation, a clear implementation of the process and strategic use of the consequent evaluations is lacking. Investments at the faculty level also appear to be lacking, not least with respect to cross-artistic and cross-disciplinary cooperation inside (and outside) the faculty.
- The university's quality indicators acknowledge artistic output, which is important. However, there seems to be a need to reconsider the scope of the points artistic and scientific outputs are given in comparison to each other.

Recommendations

- Clarify the roles, responsibilities and decision-making powers of the different levels of the organisation.
- Strategic collegial influence is crucial. We recommend that University Management ensure that the constructive ideas of academic staff and experts are taken into account in a bottom-up manner at all levels of university management. This means securing that the administrative, academic and pedagogical leadership are balanced in a manner that acknowledges and supports the specificity of the high-quality arts research that the faculty and its departments conduct.
- We recommend that the faculty clarify the diverse types of research (artistic, educational, scientific, applied) that it focally promotes (research profiling), and develop specific quality criteria for applications as well as for outcomes in relation to these.
- Instead of steering research on a unit level, it might be productive to consider managing research on a department level. This could entail establishing a shared and cross-disciplinary / cross-artistic research unit (or units for each department), which would be steered by the research board. The units could be run by the vice-head in research and offer an environment to which the departmental researchers and doctoral students belong. However, their ties to the units should be secured.
- We recommend that the faculty clarify the respective weights of different outcomes in research evaluation/quality indicators (peer-reviewed publications, publications in general, conferences, exhibitions, artistic development, curation).

B2. Recruitment and B3. Career structure

Strengths

- Focusing on internationalisation and research competence has worked. The faculty has employed high-quality international professionals with research competence, likewise existing staff are up-skilling by obtaining doctoral degrees. All three departments have very good researchers with top international

careers and some truly involved in artistic research. Recruitment processes have become more open and international since RED10. This development has enforced international networking and has also widened the scope of methodologies associated with research at the faculty. There are good procedures that support careers in research, including opportunities for developing pedagogical skills in HE, engaging in thematically relevant networks, interacting with national and international peers, mentoring processes, mobility, allocation of research time and a docent route.

- Additionally, as to future plans, the faculty's self-evaluation report claims that it aims to take care of the competence development of hired PhDs by way of guaranteed research time, research support, and strengthening the stimulating environment. The employment of PhD students with salaries seems to create an exceptionally happy, highly-motivated group of young researchers.

Weaknesses

- KF seems to be the only faculty in the university that lacks a tenure-track career structure. The reason for this is unclear. The career track in research begins well through the employment of PhD students. After their third cycle education, postdoctoral and senior researchers seem to be either overloaded with teaching and administrative work, or they suffer from feelings of insecurity with respect to future career possibilities. All research-active faculty members clearly suffer from a lack of working time allocated to research. Researchers hired through external funds are faced with short-term research positions. Additionally, it seems that research resources (funds and time) are not evenly distributed among the departments and there is not a secure annual budget for research in them. This is unfortunate. Postdoctoral, or early- and mid-career, researchers in particular require more support, as they form the group of researchers essential to the efforts towards becoming a leading academic actor in the field of research and for applying for external funds.
- There is still tension between practice- and research-oriented career profiles that might be hindering generative collaboration between faculty members, as well as the critical question of fair distribution of work time for both educational and research assignments. Moreover, the balance between the value that the faculty attributes to artistic, pedagogical and research competence is not clear. Some remarkable improvement could also be made with respect to research profiling, for example, how the research represents basic research, historical research, artistic research or pedagogical research. The faculty still carries its previous teaching-focused identity, and the staff are more strongly engaged in teaching and administrative tasks than in research. Moreover, the faculty's researchers do not seem to have sufficient opportunities for visiting international university environments or engaging in art residency programmes.

Recommendations

- Since the research activities and approaches to research at the faculty are rather complex – including not only artistic research with several different definitions and understandings of the expression, but also various profiles within the cate-

gories of basic research and pedagogical research – it would be useful to draw a diagram of existing research competencies and integrate this more nuanced understanding of the field into the faculty’s research visions and strategies. In this way, the recruitment process could perhaps also be better integrated into a more developed vision of the faculty’s current research interests and the future goals of the University of Gothenburg/Faculty of Fine, Applied and Performing Arts.

- KF could initiate tenure-track career planning, and begin implementing this plan by choosing positions that fit its schema. The panel highly recommends that this process involve paying attention to the equal treatment of staff, and ensuring that there are equal criteria for research-oriented and practice-oriented profiles for academic staff.
- The research time offered to research-oriented faculty should be secured and increased so that it is compatible with international standards. Consider if some funds from doctoral education could be allocated to research.
- Persuade the university to strategically fund the development of the faculty’s research environment and critical mass of researchers.
- Practically-oriented research in the arts and the fields the faculty represents is a young but rapidly growing field. If the university wants the faculty to retain its forefront position in this field, it should acknowledge the emergent field’s specific needs and status. As we see it, it would be wise to do this by securing a clear annual budget for research that is evenly distributed according to agreed processes in each department.
- The sustainability of research should also be considered on the basis of genuine research time/periods offered for researchers. This could include bridge-funding to retain researchers at the faculty, e.g. if a researcher obtains external funding for two years, the university offers a third year.
- Early- and mid-career researchers, in particular, need much more support from the faculty than is currently provided. Reorganise teaching and administrative structures in a way that allows them to do research. Bear in mind, that to be able to hire and keep the best researchers, there needs to be an inviting career structure and lively research environment, which is only secured by a critical mass of researchers and a secured career structure.

B4. Funding

Strengths

- The faculty has successfully created its first generation of PhD graduates since RED10. This is a success, and offers a very good starting point for the development of the next stages in the attempts to build new mature research environments. The whole organisation has worked hard to create the best possible conditions for the new faculty, and it is now clearly able to conduct internationally interesting and high-quality research.
- At present, the faculty has produced a first generation of third-cycle graduated artist-researchers. Moreover, PhD positions are salaried. While the focus until now has been on the first stage of research careers, with resources being steered towards doctoral education, mid-career researchers have not been sufficiently

- considered. Still, many good results have followed from this situation; the second generation of artist-researchers now exists and its critical mass is growing.
- It is noteworthy that there are a number of externally-funded individual and group projects at the departments of the faculty. Some of them are of very high international standing. The competence of the faculty is high and offers genuine grounds for delivering successful research funding bids and advancing externally-funded projects.
 - New funding sources are constantly sought after, and the staff are very motivated to apply for even more external funding. There is a strong emphasis on gaining external funds to promote and develop the faculty's research. A realistic long-term plan on concrete measures that allow this goal to be met is important. This is offered in the faculty's Research Strategy 2018–2025, which is creditable.

Weaknesses

- All of the faculty's three departments have far too low research budgets. The strategic vision and its implementation focus, perhaps even too heavily, on external funding for developing research at the faculty. Other faculties in the university use a higher percentage of university funds to sustain and develop research.
- External research funding is not extremely high either. Moreover, private funding (from foundations, companies and sponsors) is similarly too low and limited to only a few partners (such as the Hasselblad Foundation).
- Overheads are exceptionally high in arts (which is normal for practice-based disciplines requiring materials, machines and premises) but no compensation mechanism exists in the university.
- Research time allocation is not managed in a way that is perceived as clear and/or fair. Many faculty members with research qualifications do not have enough time to produce research or apply for research funding. This is a serious problem and will cause many kinds of losses for the faculty in the long run. It also made the panel question whether the faculty's Research Strategy 2018–2025 is being successfully implemented and if its goals are achievable.

Recommendations

- We recommend restructuring researchers' working time in ways that better support their ability to conduct research. We also advise strengthening early- and mid-career structures, and considering how the university compensates extra work for those who manage to obtain funding for research projects.
- We recommend considering artistic research as a strategic domain, and based on this, providing it with more funds. Also, create a mission that enables a clear and fair allocation of research time at strategically relevant units, and a fair support system for obtaining external funds, both from EU- and private funders. At the same time, a compensation mechanism for high overheads would be crucial to allow research groups to apply for external funding, and to enable more of the external funding to be actively applied to securing research time for staff.
- The goals and measures of the faculty's Research Strategy 2018–2025 should

be evaluated and readjusted at an appropriate moment for it to be able to be a successful steering document.

- To gain external funds the faculty should lobby and make its research agenda and impact known to national funders, and even establish focused calls together with external stakeholders in the faculty's research areas. The existing wish to gain more EU funds for KF research demands a lot of support from the university / faculty / departments, since the application process in itself is already taxing. The faculty should consider what the feasible number of annual FTEs would be to allocate towards fundraising, taking into account the prospect of a significant failure rate.
- Finally, in cases where applications are successful, the faculty should have clear procedures and measures for supporting the projects and their leaders, and for integrating the researchers into the faculty's environment. It is also necessary to consider the sustainability of funding application processes, funded projects and related research activities. Are there possibilities for creating successful research environments other than a constant quest for "more money" (that is perhaps not even possible to obtain in the long run)?

B5. Feedback and evaluation

We have commented on these issues under sections B1. Leadership and B2. Recruitment and B3. Career structure.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The specific strength of the Faculty lies within the diversity of the art fields it represents and consequent opportunities in comprehensive research in the arts that it can further. It is not often that one single university represents such a broad scope of the arts. All in all, the faculty through its three departments has many collaborations with different university partners, especially underlined are its international collaborations. The main collaboration between the faculty's departments occurs through the PARSE platform and its three professors, one from each department and a faculty dean. PARSE aims to be a cross-artistic and interdisciplinary dissemination platform for both the faculty's research and for external research outputs suiting its agenda. PARSE has gained good international standing.
- Another important collaboration between the departments is the Faculty Research School, which offers an important environment for the departments' doctoral candidates. Additionally, HDK and HSM have established a collaboration through the Centre for Education and Teacher Research (CUL), with a focus on Sweden's education in the arts (national school and higher education).

The development of pedagogical and educational research across the faculty, including the fields represented by Valand Academy, is planned to be accomplished through the establishment of the Centre for Educational Research in the Arts (ERA). This is all laudable.

- HDK has very interesting research collaborations with other UGOT units such as the Department of Conservation, School of Global Studies, Centre on Global Migration (CGM), Swedish Mariculture Research Centre (SWEMARC), and Centre for Critical Heritage Studies (CCHS), as well as with University College London. Together with these units, HDK is producing new knowledge on issues such as migration, multi-cultural identities and new cultural/identity hybrids, cross-border human mobilities, urban life and sustainable futures, public space as heterogeneous landscapes, participatory design and child culture, and design and post-humanism. Moreover, HDK also collaborates with other culturally important organisations, such as schools and hospitals, creating impressive new means and methodologies for creating new artistic procedures and knowledge on a wide variety of topics and phenomena. Cross-artistic and innovative collaborations are also practiced by the department, producing new knowledge and approaches to issues such as the relationship between creative writing and making (tacit knowledge), materiality and architecture, and between crafts, gender and sexuality (in association with the international gender design network, etc). HDK likewise has a successful collaboration with the School of Business, Economics and Law (and is well aligned with one of the larger research initiatives on artificial intelligence at the faculty level). HDK is launching a National Graduate School in Visual Art and *Sloyd* Education with two other Swedish HEIs.
- To support its research areas in Performance Practices; Music and Arts Education; Musical Performance and Historically Informed Performance; New Music, Composition, Sound and Improvisation, HSM has built productive collaborations with different actors within the university such as GIG, CCHS, the UGOT/Chalmers IT Faculty and especially the Faculty of Education. It collaborates with a host of international universities and networks, reaching from the Nordic countries to the US. Worth mentioning here is the Lindblad Studio, and the collaborations with Stanford University, UC-Berkeley and PLOrk at Princeton. HSM is active in international research societies such as FIRT, SAR, EPARM, IPPT, ISME, RAIME etc. It has thus generated a reliable international network through which it develops and promotes the diversity of research themes related to collaborative and participatory forms of performing, teaching and learning art, gender, care, improvisation, technologically informed composition etc.
- As to Valand Academy, there are several internationally interesting networks that seem to rely strongly on the activities of Mick Wilson, the former Head of Department. The curatorial programme, for example, has cooperated with the Bard CCS/LUMA Curatorial Research Network since 2013, and also organises workshops with the Dublin Institute of Technology and HK Utrecht, with the long-term aim of planning two major EU research funding applications for submission in 2020. VA collaborates with the Hasselblad Foundation, with the

long-term ambition of positioning themselves “as an international node in photographic research with a global standing”, and to also position photography as “a key dimension of the city’s identity and cultural infrastructure”. There are also several other networks with which VA cooperates, with a shared aim of developing research on issues such as public art, queer practices and imaginaries, human rights, ecological issues and the environment. Moreover, VA has expertise in the field of critical arts pedagogies, which is also closely linked to the concept of “political”. The academy also runs an impressive project called the Children’s Film School, which has grown from pedagogical experiments into a doctoral and postdoctoral research environment.

Weaknesses

- The faculty does not fully utilise its potential to establish a cross-artistic research institution that would further research collaboration between its departments. The departments have established fruitful collaboration with external partners, and with other UGOT faculties and research centres, yet collaboration between the KF departments is not as strong. The faculty has identified the opportunities for collaboration that PARSE can offer, and aims to develop them further. However, further steps in implementing PARSE as a successful platform that would interlink the research interests of the three departments still need to be taken.
- Similarly, ERA is still under development and its relationship with CUL and the Faculty Research School is not yet clearly articulated. Despite the interlinks created through the Faculty Research School, PARSE and ERA, the three KF departments seem to have surprisingly little shared research activities or projects. This hinders the development of cross-artistic research ventures and a generative cross-pollination of the departments’ developing research expertise. Perhaps the faculty could also have even more extended cooperation with the Humanities (Faculty of Arts).
- In addition, the panel noted that the self-evaluation report offered quite a lot of information about projects that have already been completed or are merely at a planning stage (especially VA). The report also included abbreviated lists of international networks to which the faculty’s departments are linked, but exact information about the forms of collaboration, or the academic/artistic goals of cooperation were not always mentioned.

Recommendations

- Strengthen the strategic focus of research, as well as research communication, at the faculty. This could support internal collaboration within the faculty and with UGOT’s other faculties and departments. Perhaps sharpening the inter- and transdisciplinary nature of research conducted at the faculty could help to establish a research profile that would better attract other actors at UGOT.
- Analyse research competence and draw informative diagrams. Share knowledge with the other faculties and create spaces to meet with researchers in the Humanities. Cooperate with them and apply for funding together (e.g. EU funding).
- Strengthen communication and create new agoras for researchers to meet. Help

- departments and units get a clearer view of internal collaboration opportunities.
- Clarify what purposes the different research networks and cooperations are used for and why the departments / faculty benefits academically from cooperating with them. Focus on fewer international networks and try to select networks based on clear research ambitions and aims. It might be productive to define some central strategic partners for the faculty or for each department.
 - Pay attention to the current problems related to the PARSE platform and develop new ways to genuinely support the needs and research interests of all three departments.
 - Developing ERA in a way that helps it to find a fruitful position within the faculty's research environment, and that benefits the overall research agenda.

C1.2 Collaboration with external stakeholders

Strengths

- The faculty has identified the importance of collaborating with external stakeholders, such as the art world, and the cultural and educational sectors. It has established successful measures to support activities that enhance outreach and socio-cultural implementation of research outcomes, and that more generally support the socio-cultural relevance of arts research. These include the HDK Steneby annex that supports regional collaborations in societal and economic development involving arts, craft and design. The Centre for Education and Teacher Research collaborates with actors in the national school and higher arts education systems. There is also an ongoing collaboration with six other Swedish universities through MUSA: a methodology for developing collaboration arenas with the general public. The Academy gallery project with Region Västra Götaland and Akademiska Hus, and the long-term collaboration with the Hasselblad Foundation, are also important. Moreover, a strategic partnership with the Swedish Agency for Cultural Policy has been set up to evaluate and develop impact and partnerships with external stakeholders. The faculty has therefore managed to establish successful strands and institutional structures for maintaining and developing collaboration with external stakeholders.

Weaknesses

- The faculty's three departments are not very strong in terms of collaborations with each other, nor private companies (music industry, film industry, non-public art market, industry and media in general). Most of the collaborations listed in the reports are with cultural providers that host artistic productions, which is a minimal level of research collaboration. On the other hand, since critical studies and political aspects are so well cherished in the faculty, it is easy to understand why the amount of collaboration with private companies is not very high. This is also the case in most international universities that foster the freedom of art and research. In this respect, we naturally do not wish to see this situation as simply problematic, but instead understand it as a natural consequence of the cultural tasks and values linked with university-level researcher training in Scandinavian cultures.

Recommendations

- Identify shared strategic external stakeholders and collaborate with them in a manner that benefits all three departments.
- If possible, utilise research communication experts to target external collaborators of interest.

C2. Relevance and impact on society

We have also commented on this section in A2. Research Standing.

C2.1 Management and support

Strengths

- The faculty cooperates and engages with a host of agents in the wide field of creative arts and the cultural sector. Projects include highly interesting and concrete interactions with society, offering platforms for outreach and dissemination of research activities. In this respect, the faculty is internationally above average.

Weaknesses

- Although there is a clear promotion, follow-up and reward mechanism for the utilisation of research-based knowledge outside the university, it is unclear how research-based artistic expertise is made known and attractive to a wider cultural sector and to other external stakeholders.

Recommendations

- Strengthen collated research communication about collaborative initiatives and events with the cultural sector and other stakeholders both within UGOT and externally. This could perhaps be done by extending/renewing the web-based PARSE platform. Public researcher profiles could also include doctoral candidates.
- Educate researchers and doctoral candidates in research-oriented career skills; popularise research and utilise social media to promote it.

C2.2 Research relevance and impact on society

We have integrated this in our response to A2. Research standing.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Having a good diversity in educational background, staff are able to base teaching activities on a wide expertise in art/istic research, applied arts research and pedagogical research. There are some initiatives to improve research-teaching links in MA studies as well. PhD candidates also teach, which is mainly positive – given that their teaching is allowed to freely grow from what they are working on in their research projects.

Weaknesses

- In its strategy for the next 5–10 years, the faculty has announced its aim to link teaching tasks with research. Since the faculty is already part of the university, this should be self-evident. Yet, it is also understandable that since the faculty is relatively new, there are still some old traditions that stem from earlier (non-academic) art education phases of these departments, and that it takes some time to strategically integrate teaching and research.
- Many people who are hired to do both research and teaching seem to teach far too much, resulting in too little time for research. This is a serious problem, and should be solved. Moreover, staff are not equally treated with respect to guaranteed research time.
- There could be even more cooperation between the three departments in teaching and research.
- Some doctoral students and mid-career researchers complain that they are at times used to “fill in” professors’ lecture series, and to teach issues that are outside his/her own subject area. This is not a good situation, and also goes against the basic values of university teaching – that it should always be grounded on expertise in a certain field of research and/or art.
- The department’s strategic visions for education are also not very clearly articulated, and could be better expressed.
- There was little discussion about how master’s education prepares students for third-cycle education.

Recommendations

- Clarify the value and emphasis given to research and teaching in different positions (practice- and research-oriented lecturers, senior lecturers, professors).
- We recommend that the faculty analyse what kinds of collaboration between master’s programmes and the Faculty Research School could be of benefit both to master’s students and PhD candidates. Consider, for example the possibility of doctoral candidates producing their artistic work together with master’s students, shared invited expert lectures, etc.
- Establish means of introducing artistic research already at the master’s level to build interest in the area generally and to generate skilled doctoral applicants.

C3.2 Doctoral education

Strengths

- The Faculty Research School offers an excellent cross-artistic environment for doctoral education and doctoral candidates. This has resulted in an academic environment with active exchange between doctoral students. There seems to be a mutual interest in exploring common ground and learning from each other’s expertise, as well as in taking an active role and responsibility in sharing expertise with the larger environment. The doctoral candidates in arts education, who are financed through the CUL research school, form their own unit with active collaboration with HDK and the Faculty of Education. They likewise seem to have a well-functioning and supportive research environment with good international opportunities.

Weaknesses

- While the Faculty Research School brings the doctoral candidates together, the doctoral candidates are still based in the units of the departments. A large number of research units and research topics leads to very specialised doctoral students sharing little in terms of content. They can also be quite lonely in the units where they work. So far, a clear career perspective for doctoral candidates has not been created, and the role and position of doctoral research supervisors has not been focally introduced.
- However, it must be noted that the situation for the doctoral candidates connected to CUL/music education is different. In order to establish fair treatment, it must be ensured that the Faculty Research School candidates have a supportive peer environment. Also, the interlinks between the two research schools seem not to be as strongly established as they could be to create a generative and multivocal research environment.

Recommendations

- We recommend considering whether doctoral candidates could be employed at the department level instead of being line-managed on a unit level to ensure that they are surrounded by supportive peers. This would obviously require that they still retain connection to both the units that the subject matter of their research relates to, and to the research school. Ensure that supervisors support doctoral candidates in integrating in the departments and units, and when possible, in networking with external stakeholders. Develop a teaching format that enables doctoral students to reflect about their research careers, inside and outside the university.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

We have linked this with Sections A1. Background and A2. Research Standing.

D2. Publication

D2.1 Publication strategy

Strengths

- Publication strategies have clearly developed since RED10 in all departments, even though the faculty-level strategy still seems to be largely missing. At the faculty level, however, PARSE is a good tool with a positive international reputation.
- At the moment, there is clearly a remarkable amount of high-quality published work, and the impact of this work is constantly increasing, with regards to both the research field and society at large.

Weaknesses

- The number of peer-reviewed publications is still pretty low in HSM and VA,

- even though all departments have also improved in this respect since RED10.
- Written texts are still the main products mentioned in the publication list – and the indicators for reporting “artistic research” are still not clear. A few exhibitions and art books are also listed in publications, but with no clear mention of this in the list, and with no subcategories for different research “products” (it is not even mentioned whether the texts are peer-reviewed).
 - Moreover, the attempts at peer-review for artistic research seem poorly balanced with peer-review for scientific production, and the criteria for evaluation and review are not explicitly clear. This can create confusion for artistic researchers, as well as a misunderstanding of the values that motivate scientific and artistic disciplines. The attempts to balance a score system between these two very different research cultures can be misleading.

Recommendations

- Stronger quality control and better sub-categorisations should be exercised in publication lists. The obscure way of listing conference papers, art books, exhibitions and even public talks in the same list as peer-reviewed publications leads to a loss in academic authoritativeness, which is, also strategically, not a good thing.
- With respect to strategic development, the faculty should develop a more conscious approach to publishing, and elaborate the way it presents written work and artistic expressions. It is essential to highlight different qualities of different mediums and channels, and to create more nuanced plans for integrating dissemination in research planning.
- Create more elaborate strategies for estimating research products whose main end-product (perhaps accompanied by verbal reflections) is art. Explicate subcategories that include art products, and create more informative ways to present these publications academically.

D2.2 Analysis of bibliometric data

We have integrated our comments on this into earlier parts of the report.

D3. Facilities and research infrastructure

Strengths

- The panel’s quick visits to the different facilities showed a range of different physical localities. HDK seems to have a good focus on providing a range of different workshops, supporting a variety of techniques. HSM has some good quality performance areas and studios. The film facilities at VA seem to be of high quality, but other essential workshops for artists have been cut or reduced to a minimum.

Weaknesses

- It seems that the “conceptual turn” of research activities at VA has weakened the training in material and medium-based skills. We were also informed that some of the previous workshops had been dismantled. It might be questioned

if this is a sustainable strategy for the long-term research culture.

- There was also very little information on how working space is offered to research-related artistic practice.

Recommendations

- A multi-purpose space shared by the faculty's researchers and doctoral candidates that is specifically allocated to research allowing for artistic demonstration and more traditional lecturing could help build a stronger shared research identity.
- Please bear in mind when planning the new building (and integration) of VA and HDK, that the workshops are still essential for visual art students, just like musicians need instruments. Without these skills, the artists will not be strong enough to function in a sustainable manner in the field of visual arts. Moreover, weakening the medium-based skills of artists will also have long-term effects on art/istic research, and there is a danger that the "know-how" of future artist researchers will decrease dramatically if they lack very basic artistic skills.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The University of Gothenburg strongly supports the issue of gender equality, which is very important.

Weaknesses

- KF is the only faculty that does not have a tenure-track system. This is confusing, since the staff naturally demand the same demands, and are also supposed to build a career in the very same environment. The idea of continuous mobility was first brought to art schools in the 1970s to secure the "creativity" of the field. However, there is no scientific evidence to support that the constant flux of staff ensures higher creativity – and if this were the case, the same would logically be true of scientific creativity. It is also very important to note that people who work in the art field are nowadays also academic, just like all others in the organisation. This means that they work in completely different organisational surroundings than the art schools of the 1970s. Keeping art research completely out of the tenure-track system today seems extremely old-fashioned, and more importantly, leads to the unequal treatment of experts in this field. We wonder whether Swedish law actually allows this unequal work situation.

Recommendations

- Start planning a tenure-track system for the art field and implement it as soon as possible, in order to guarantee equal treatment of staff and to better support the creation of sustainable research environments.

D4.2 Internationalisation

We have integrated our comments on this section into earlier parts of the report.

SECTION E – SUPPORT

E1. Internal research support

We have integrated our comments on this section into earlier parts of the report.

E2. Faculty and University-wide support

We have integrated our comments on this section into earlier parts of the report.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Most RED10 recommendations have led to improvements. Important changes have occurred at governance level. A strong and continuous impulse has been put on research through regular recruitment of PhD candidates and internationally recognised senior researchers.

Cross-disciplinary collaborative projects seem to be very healthy and provide the starting point for a broader academic culture that shares values and respect for the other fields in the institution. However, it seems there are also parts of the environment that are still not included in this collaborative atmosphere.

We have commented more on these positive aspects throughout the report.

F2. Other matters

The panel has not separately addressed this question.

CONCLUDING RECOMMENDATIONS

Despite the fact that we have paid attention to a number of weak points in this report, we wish to emphasise that all analysed departments clearly have an exceptionally interesting and strong academic capacity.

We have no doubt that with even better administrative support and funding for research, the Faculty for Fine, Applied and Performing Arts will be able to grow into an international front runner in its field.

This, however, requires systematic strategic investments on all levels of university leadership, as well as faculty and departmental administration. We would like to sum up our recommendation here as follows:

Recommendations

- 1. Update the strategic aims of research at the faculty- and department level**
 - a. Profile in more detail the research that the faculty promotes, and clarify the strategy. This could also help steer the focus and quality of research on all levels (the research focus of departments and consequent collaboration between them, researcher recruitment, external collaboration and networking choices, internationalisation, etc.).
 - b. We recommend that the faculty ask for strategic funds to establish consecutive genuine research positions/research time allocation and a sustainable research environment.
 - c. There seem to be good opportunities for further cooperation with other departments in the faculty and with other faculties at UGOT (including Humanities).

- 2. Acknowledge and substantiate academic leadership based on content expertise**
 - a. We would advise UGOT to try to simplify administrative structures at the department level in a way that allows more autonomy to create sustainable research environments for the field.
 - b. Pay specific attention to possibilities for guaranteeing equally allocated research time for all, and reorganise teaching and administration in ways that allow for more research time.

- 3. Create a tenure-track system to support a reasonable amount of continuity, important for all sustainable work environments.**

- 4. Seek new ways to compensate high overheads and increase the research budget.**

PART II
PANEL REPORTS

FACULTY OF SCIENCE

FACULTY OF SCIENCE

278	Introductory Remarks
279	Section A – Background and Research Standing
279	A1. Background
280	A2. Research standing
282	Section B – Leadership
282	B1. Leadership
285	B2. Recruitment
287	B3. Career structure
288	B4. Funding
289	B5. Feedback and evaluation
290	Section C – Complete Academic Environment
290	C1. Collaboration
292	C2. Relevance and impact on society
293	C3. Research-teaching linkages
295	Section D – Academic Culture
295	D1. Academic culture
296	D2. Publication strategy
296	D3. Facilities and research infrastructure
298	D4. Transverse perspectives
299	Section E – Support
299	E1. Internal research support
300	E2. University-wide support
301	Section F – Other Matters
301	F1. RED10 evaluation
301	Concluding Recommendations

INTRODUCTORY REMARKS

Background of the panel

The Faculty of Science-level panel was composed of the panel chairs of each of the seven department-level evaluations. Robert C Aller (Department of Marine Sciences), Lena Gustafsson (Department of Chemistry and Molecular Biology), Pekka Koskela (Department of Mathematical Sciences), Mattias Kärholm (Department of Conservation), Claudia Mora (Department of Earth Sciences), Deborah Power (Department of Biological and Environmental Science), and Lárus Thorlacius (Department of Physics). Panel members were appointed by RED19, based on suggestions from the relevant departments, and have no formal association with the University of Gothenburg (UGOT) and no declared conflict of interest. The work of the faculty panel in the remote phase was coordinated by Deborah Power, who was nominated by RED19. She set the initial scope of the evaluation in the context of the guidelines set down by RED19, and this was refined during discussions with panel members via email or one-on-one skype meetings, which were carried out prior to the on-site meeting in order to align the work of all panel members and avoid duplication of effort. Due to the busy schedule of panel members it was not possible to have a group meeting by skype in the run up to the on-site evaluation.

Panel working method

The panel report for the departments are strongly interlinked and provide necessary insight into the faculty organisation and function. For this reason, the faculty-level evaluation by the panel was initiated after the initial departmental panel reports had been constructed. The members of the faculty-level panel have not previously worked together and had no contact prior to their appointment to the panel and so the first task, carried out via email, was the introduction of the panel chair to the panel members. RED19 project leader Professor Staffan Edén presented the faculty-level evaluation to the panel chair, and set the deadline for submission of comments for inclusion in the panel report as 22 March 2019. Subsequent email correspondence took place between the panel chair and all panel members, together with one-on-one meetings via email and skype. These communications had as an objective mutual identification and agreement on the panel's remit and the approach to be taken for the evaluation. The panel chair requested that each member of the panel provide a) their draft departmental report and b) their submissions for the faculty report by 22 March 2019 in order to allow time for a consensus document of the faculty report to be drafted and circulated prior to the on-site meeting. The panel chair requested the departmental reports from each panel member in order to gain a general impression of the strengths, weaknesses and challenges identified across the departments in the Faculty of Science.

The basis of *Research Evaluation for Development 2019* (RED19) was well defined and established in the documentation provided to the panel. Documentation included the self-evaluation document from the faculty and associated annexes (supplied by RED19). The departmental RED19 reports prepared by the seven appointed panels also provided relevant information for the faculty panel report,

since some commonality and corroboration between self-evaluation reports was expected if the faculty and departments were aligned in their strive for research excellence. The remit defined by the panel was based on the guidance provided by RED19: namely, not to grade results or output per se, but rather to identify the conditions and strategies that foster high-quality research environments that are conducive to the strategic renewal of research. Overall the panel saw its engagement in RED19 as a means by which they could contribute constructively to strengthening the research quality and performance of UGOT. Moreover, they considered the RED project commendable and agreed that it showed a serious institutional commitment to quality and excellence in research.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

How the faculty is organised:

The Faculty of Science currently comprises 6,516 students and 769 employees. It has a broad scope and integrates seven departments (natural sciences through to exact sciences), seven infrastructures and four research centres. It is a dispersed faculty, which occupies nine different buildings both within Gothenburg but also in Kristineberg and Tjörnö (Sven Lovén Centre’s research stations) and Mariestad. It was noted by the panel that there was considerable discrepancy in the size of the different departments and organisational structure.

The structure of leadership:

The University Board and the Vice Chancellor set institutional mission, strategy and policy. The Dean and the faculty board develop and execute strategic activities that deliver the expected outputs. The interaction of the faculty board with the Vice Chancellor is via the Dean. Decision-making in the faculty in relation to research education and collaboration resides with the Dean and the faculty board (Heads of Department, constitution was not entirely clear, but this was clarified during the on-site visit).

Organisation and structure for high quality research:

Strengths

- The Faculty of Science has a clearly organised structure with departments, infrastructures and research centres clearly mapped.
- The decision-making body is inclusive with representation of all departments and faculty-wide involvement in decision-making.
- The line of command is well documented.

Weaknesses

- Dispersed departments and research centres are a challenge to management and interdisciplinary research.
- Research centres can be powerful means to build critical mass and stimulate interdisciplinary research. It is unclear based on the organogram if this occurs and what tools are used to leverage interactions. It is stated that they are “cross-disciplinary” in the faculty report but the geographical dispersal of the departments is a challenge.
- Decision-making by the faculty board due to its representative structure may be a challenge if there are vested interests, particularly if departmental loyalty is greater than faculty loyalty.
- The diversity of the research agenda in the Faculty of Science is a challenge in relation to defining research priorities and associated measures; is there a specific decision-making body?
- The level of autonomy of the departments and the balance of power between the departments and the Dean is not very clearly documented.

Recommendations

- The faculty should provide clear indication of how the internal organisation is beneficial for research excellence. The need to serve education, research and cooperation raises questions in relation to the ideal structure for governance. What level of priority is given to research? Prioritisation could encompass hiring, administrative measures, funding and co-funding, organisation, PhD recruitment etc.
- The responsibilities of the different boards of the faculty need some clarification. The responsibilities of the diverse institutional structures need to be clear, namely, the Academic Appointments Board, the Faculty Board, the central management and the departmental level. Since appointment activities/ responsibilities are decisive for education and research, clear responsibilities at each level is of utmost importance and the goals and strategies should be harmonised through the different levels.
- How is the faculty research strategy established within departments and within the faculty as a whole? What are the tools (resources) available for leveraging and implementing specific research strategies (e.g. reinforce existing areas or open new areas) considered a priority by the faculty or research departments? How are competing priorities managed? Is each departmental research strategy piecemeal or is it part of a bigger framework or faculty plan for advancing research? What mechanisms exist for collective determination and implementation of effective foresight research planning?

A2. Research standing

The faculty aim is guided by the university vision of “quality-driven socially responsible research, in an inspiring environment with global engagement”. The way in which this is to be achieved is through several measures that are outlined in the self-evaluation report. The proposed actions while appropriate (e.g. maintain research quality through investment in staff and the working environment, interna-

tional cooperation, PhD programmes etc), do not appear to be entirely aligned with the information coming from departmental reports, for example most departments have major problems securing PhD students (financial constraints and recruitment, one exception is Physics that has invested in training PhD students following a recommendation of RED10). Overall, institutional PhD areas/programmes do not appear to exist (contrary to the emphasis provided in the faculty report), which is a missed opportunity as this is a way to build reputation now and, in the future, to develop a unique and attractive research training environment.

While it is comprehensible that the faculty level self-evaluation report does not go into detail about scientific research priorities, it is a concern that they have not pinpointed and presented their unique areas of excellence and that there are no clear statements in relation to engaging and implementing enabling actions to secure research excellence. Support for strong research areas and strengthening of weaker ones (through strategic recruitment and internal funding) and stimulating innovation and cooperation is a commendable aim. However, this seems like a difficult equation to solve, since all existing areas, like any new ones created will need (increased) funding. How does the faculty look at concentration, prioritisation and perhaps the necessity to phase out identified weak areas?

It is commendable that a Cooperation, Innovation and Internationalisation Advisory Board was formed to leverage increased cooperation at an institutional, cross-institutional and international level. Some further information about why this will be beneficial, the board's composition and activities and metrics and deliverables to be used to measure and assess performance would be beneficial.

In general comments are too generic to be helpful for evaluation purposes, the panel would like to have seen a clearer specification by faculty of areas of research excellence (illustrative of a strong two-way dialogue between the faculty and departments). The areas to be pinpointed for future strengthening and development and mechanisms for strategic recruitment. This information may exist in a strategic report and planning document and it would have been beneficial for the panel to have had access to this document.

It is stated that “the faculty does not and will not steer research”, it is not entirely clear how this is beneficial for the implementation of university strategy. It is important that the researchers are the ones that choose and decide on the research to be performed and which methods, set ups and collaborations to be used and developed. However, there is a risk of fragmented research, duplicated research and a failure to engage and promote the strengths of the faculty for its benefit, and it is more difficult to stimulate initiatives to promote inter-departmental collaborations. An example of this is provided by the Department of Conservation that recognises the need to strengthen science in their actions but has still not managed to establish strong collaborations with the natural science departments. This risk should not be underestimated. The UGOT Challenges projects, which were

bottom-up, reveal the potential benefits (and drawbacks) of one mechanism for establishing institutional research priorities.

It is stated that “Appointing teaching staff with a higher degree of university-allocated funding shall be given special priority to increase our competitiveness”. To pursue long-term attractive conditions both for teaching and for research is crucial for the university. It is easy to agree that a “higher degree of university-allocated funding” most probably is necessary in order to create stability and trust within the system and provide good conditions for the employees. However, consequently it is important to explain what is meant by “higher degree”. Higher than what, and which other activities that are in need of long-term funding may have to receive reduced funding? A systems approach, where the interactions between the different parts are identified is necessary. It is therefore also necessary to both clearly outline the goals and the strategies, and clearly communicate them to staff.

SECTION B – LEADERSHIP

B1. Leadership

The panel considered that overall this section indicated that careful and transparent reflection had occurred by the leadership and that they identified the main challenges and provided relevant suggestions for improvement.

B1.1 Faculty leadership

Strengths

- Decentralised research leadership puts the decision of the research agenda in the hands of those that are engaged actively in research and can favour cutting edge research.
- Frequent meetings with Heads of Department to foster strategic leadership (involving gender issues, leadership working environment).
- The faculty clearly identifies their role in relation to the departments and is represented in institutional decision-making/planning boards that are of strategic interest for the faculty.
- There is a Vice Dean for research and research infrastructures, which shows institutional commitment to research (this is not indicated in the organogram).
- The faculty recognises that decentralised decision-making in relation to research is a risk for long-term strategic planning and opportunities for inter-departmental collaborations.
- The faculty has engaged Heads of Department in the planning of the new building to ensure needs are met.
- Formats for intra-faculty meetings exist and can potentially be developed and become stronger with the new building.

Weaknesses

- There is some contradiction in what is written in this section and what is written in the introduction as it is suggested that they prepare “*strategies and follow-up activities related to research and research infrastructures*” – clarification of what this means in relation to the research agenda would be helpful.
- Having recognised the risks of decentralised decision-making it would have been beneficial to have the measures in place to deal with the potential issues identified.
- Faculty-wide strategy for communication and engagement with external stake-holders does not appear to exist and is identified by faculty as a weakness to the current structure.
- As external research increases, is research driven by short-term projects rather than by basic funding and long-term investments?
- A large part of strategic funding at the university is top-down programmes for funding. In a research environment that is increasingly driven by short-term projects and an external funding logic, it is important that the university and faculty secure basic infrastructure and stability rather than adding even more insecurity by following the same logic as the external funders of short-term investments. This might also be important in relation to how education and research can draw on each other. A certain amount of research should be relevant and feed into the education programmes.

Recommendations

- The Head of Department workshops should be a forum to discuss research strategy and could be extended to staff guests where relevant themes and issues are discussed. This would be a good opportunity to identify common research lines for inter-departmental collaboration, transfer of good practice and development of faculty-wide actions.
- The faculty can expect to lose a relatively high number of staff over the next 5–10 years due to retirement, so it is essential to consider not only current staff but also new areas and the strategic direction of the faculty when designing and establishing the new building. It would be interesting to see the engagement of the Department of Conservation in the establishment of the new building, since the faculty should engage its own experts in this process (interesting for marketing of what the faculty does and for the creation of a unique working environment/space).
- The faculty management is currently conducting a survey to assess the work environment in terms of administrative support etc. in order to form the basis for planning space and structuring of spaces at the different departments. We suppose that this is linked to the planning and construction of the new science building (Naturvetenskap Life). It is also said that the faculty management is working closely with the departments to ensure that the building design is optimal for research activities within and among departments. The faculty indicated during the on-site visit that professional support is available for managing the project. The faculty and departments have to be highly involved, but equally important is the support from the beginning of professionals. There are some

very specific needs for the new building, and it will be important to identify them (and possible costs) early on in the planning phase. The space use (open plan offices, shared communal labs) should consider the experience from other institutions. This is an opportunity but may also be a risk (coherence conflict, escalated costs, inadequate size etc).

B1.2 University level leadership

It should be noted that the current faculty management was only appointed in 2018 so has not really had time to strongly imprint on the Faculty of Science or implement their specific agenda and vision.

Strengths

- The faculty leadership will engage strongly in the university's Vision 2030, which will be in development and discussion during 2019.
- Good intention in relation to faculty representation in university policy.
- The new leadership is a good way to "turn the page" on past problems and to bring new and fresh ideas to the faculty management's interaction with the university and staff. It would have been interesting to have had access to more background details about the members of the faculty leadership and if they were previously involved in University leadership and if they come from UGOT or outside UGOT.
- Initiatives are directed at support for external funding bids, application of strategic funding at an institutional level and the engagement of the Vice Dean for research in the university's policy board for research.
- There is the intention to establish follow-up analysis (SWOT) of research environments and needs for successful research.

Weaknesses

- The panel had difficulty in evaluating the new leadership as they have not had time to make an imprint. It is not very clear in the provided documentation how much of the identified initiatives come from their own strategy or the previous faculty management strategy. During the on-site visit, however, the new faculty management clearly identified ownership of the report and new vision. How the new leadership strategy diverges from the previous strategy would have been helpful for evaluation purposes.
- The tangible means by which the faculty management will analyse its success is not clearly stated. Quality indicators that will be used to measure research success and the way these measures contributed to this success was not provided so it will be difficult to assess the impact of the proposed measures and actions.

Recommendations

- The faculty leadership should use the existing forum to discuss research priorities, the means to identify them and the means by which they can be implemented. This should engage all Heads of Department since their departments represent such a broad range of scientific areas it will be important to establish a common framework to define the overall strategy for advancing research

excellence across the faculty.

- The faculty leadership should consider if it is beneficial to develop with the Heads of Department a research strategy and direction, particularly because they intend to engage in the Vision 2030 document of the university, this will ensure strong engagement of the faculty's research priorities within the university's vision and priorities.
- Quality control of research requires that clear metrics are available for benchmarking and assessing progress on a regular basis. It is not entirely clear how the faculty leadership intends to measure research outputs across the very diverse departments. For example, there is concern in the Department of Conservation that the current priority in relation to bibliometrics and research funding is negatively impacting areas with non-traditional outputs (crafts etc.).
- Reconsider internal funding systems. For example, since the Department of Conservation might have more complex and pluralistic ways of disseminating research (which should be honoured), their strength here might turn out to be a disadvantage when it comes to internal funding.
- Strengthen the arenas and possibilities for intra-faculty collaborations. For example, it seems unfortunate that the weakest research cluster (of three) at the Department of Conservation is the one related to (natural) science.
- The university co-finances large grants and this is valuable and possibly necessary for success in receiving such grants. However, the issue raised by the faculty is that a substantial part of the basic funds is used for top-down initiatives (e.g. UGOT Challenges). The faculty propose a discussion on reducing this type of strategic effort to a total of 20% of the basic resources (basanslag). Even if strategic top-down initiatives may be good investments for different reasons, such investments have to be analysed from a systems perspective, such that the long-term basis for successful and high-quality education and research is not put at risk. In comparison with other countries, the Swedish research system is moving towards more short-term conditions, which may challenge high-quality research.
- It is important to analyse the consequences of actions taken. For example, the faculty management says that it is important that all their researchers have the resources for successful external funding. However, it is important to start the analysis and develop the strategies directed at the ultimate goals, which must be equal to high-quality research and education and the provision of attractive and long-term conditions for researchers/ teachers.

B2. Recruitment

It should be noted that recruitment follows Swedish rules and procedures that are formalised at the institutional level. That is, to ensure transparency and gender equality.

Strengths

- The procedures for recruitment are clear and include an academic board (with representatives of all departments), and recommendations for recruitment are based on interviews, trial lectures and external evaluations.

- The procedure for the recruitment board is independent and should ensure an unbiased recruitment process.
- There are measures in place to ensure fairness and gender awareness and active actions are taken to close the gender gap through recruitment. Recent recruitment has also addressed issues in relation to recruiting international scientists.

Weaknesses

- The procedures for recruitment are lengthy and this has a negative impact on recruitment.
- The recruitment policy in relation to the needs of the faculty is not clearly outlined and since there is a large mass of scientists nearing retirement this may become an issue both in terms of setting priorities and the administrative burden. There is the intention to analyse this faculty-wide and this is positive.

Recommendations

- Since the recruitment board only makes recommendations, and not final decisions, are these recommendations followed-up by the departments? There was considerable discussion in relation to this point at the departmental level. It was considered that the procedure so far as it goes is satisfactory if the department has the autonomy to make the final decision (from a top pool identified by the board). The panel suggests that the department (Head of department) has the best expertise to identify the “fit” research-wise but also in relation to correcting gender imbalance etc.
- Approaches to stimulate recruitment and to make it more interesting for “high fliers” could be identified in order to offer an “attractive package”. There was, however, concern at the departmental level in relation to the likely commitment of “research high fliers” in contributing to the common good and other administrative issues.
- To avoid a large “brain drain” and to maintain the institutional characteristics and traditions, the faculty management could consider maintaining retiring Professors for mentoring new staff and to transfer knowledge, research resources and research networks to incoming staff (if feasible). A commission of disinterested emeritus experts is an added-value way to assist in establishing strategy.
- Consider a 2–3 tier system in relation to recruited staff, as high-profile researchers are unlikely to accept a high teaching load or administration. What is the level of flexibility for recruitment not only for research but also for a predominantly teaching career?
- There is a risk when recruiting a relatively high number of young researchers as staff that competition between them may become too high to be healthy and will not be beneficial for teaching since the priority may be research if higher ratings are given to high research output and funding and less is given to institutional and teaching actions.
- The request of faculty management for a 5–10 year recruitment plan is an excellent initiative. It would be interesting to have an indication from the faculty management about how they will manage the recruitment process (if it is slow now when there is the need for more recruitment in a short space of time there

is the risk that the system will collapse).

- It is said in the faculty management report: “*The individual departments make their own decision regarding which research areas to strengthen/maintain with new hires and the faculty does not directly evaluate recruitments*”. However, it is probably important to develop a healthy and responsible interaction between the three levels of the university with regards to hiring. This is not a recommendation for top-down control, instead the higher levels should make sure they provide good conditions for the lower levels and encourage strong and responsible leadership at each level. In the Swedish system, with its increased dependency on external resources for research, it may be risky if the leadership abdicates from the development of the whole activity.

B3. Career structure

In relation to career structure it is stated that the faculty does not steer research, and allocation of funds to individual researchers is decided at the department level. The faculty management supports researchers’ careers through three main mechanisms, the responses suggest there is a relatively minor role of the faculty.

Strengths

- For PhD students, complimentary courses (N=2) for career development and ethics are provided, as well as scientific courses.
- A sabbatical programme for staff exists and is overseen by the Dean, and it is recognised that there are weaknesses linked to researchers with young families and child care issues (although solutions are not identified).
- Co-financing is provided for ERC and other international grants.
- The faculty management recognises and identifies discrepancies in relation to how research time is allocated and will aim to harmonise this process across all departments to make it more transparent and fairer.
- Mechanisms are in place for performance-based promotion at senior levels, which is fair for excellent scientists already at UGOT, while leaving space for career-track scientists as well as positions for new senior recruits.

Weaknesses

- The faculty management has a relatively minor intervention in staff careers, which is surprising since support of career development is an integral part of research excellence.
- No specific measures seem to be in place to assist and promote career development of staff e.g. conference support, workshops and courses to strengthen career development.
- The availability of technical support is unclear but for essential equipment would have big benefits. It became apparent during the on-site visit that the numbers of research engineers are in decline due to retirement and the recruitment freeze due to financial difficulties.
- No records were available regarding the fate of PhD students so that the impact of PhD training at UGOT could be monitored and student feedback used to identify areas for improvement.

Recommendations

- Clearly identify measures for helping young researchers with families (e.g. additional technical support), and how this is factored into CV development and promotions. The panel agrees that this is a very important issue, but it is also important to ensure that strengthening one part of the employment system does not weaken another part.
- Seed funding or stop-gap funding to keep research going when there is a temporary interval in funding or to assist young scientists starting their career.
- The faculty management should have a strategic plan for PhD recruitment; the notion that PhDs and supervision lies entirely with departments is probably not the best solution. In general, departments have highlighted the lack of PhDs as a major risk to research excellence. Quality measures require that all departments adopt harmonious administrative procedures for recruitment and registration, and the faculty has a role in organisation and creating links between departments to reinforce interdisciplinary studies and put the “seal of approval” on PhD quality. The panel notes that it will be important to harmonise without becoming rigid since recruitment requirements may be subject-specific.
- *“There are different career paths in place where a tenure-like system coexists with a non-tenured researcher position (which is common in the present Swedish system). The departments differ in how staff is distributed between these systems.”* The faculty should evaluate if it is advantageous to not develop a harmonised and equal career system for the whole faculty, or rather the same for the whole university? Since recruitments and attractive conditions for employees is absolutely crucial for the success of the university, a larger focus on these issues between the different levels of the university is recommended.
- Evaluate the stronger line-management that was implemented after RED10, when Heads of Department took over the majority of decisions from department boards, etc. Has this really led to improvements? How has it affected academic culture, for example? How do you assess this? Since it seems like a big change it is important to evaluate.

B4. Funding

The panel appreciates the faculty’s identification of the need to have performance metrics, this is clearly true for all parameters covered in the report. If the intention is to conduct quality assessment, then it will be essential to establish a robust set of metrics appropriate for the consortium of departments in the faculty for evaluating research quality.

Strengths

- The faculty co-finances external grants.
- The faculty funds the sabbatical programme from their funding allocation.

Weaknesses

- The UGOT funding policy means that the Faculty of Science receives less funding than equivalent faculties in other Swedish universities. The model used to allocate internal funding is coupled to the amount of external funding, this is

- seen as disadvantageous since it makes financial management unpredictable.
- A shortfall in external funding can have a major negative consequence on the faculty budget.
 - The UGOT funding policy (e.g. coupling of internal and external funding) does not appear to have promoted international funding. Much of the funding comes from Swedish research funding bodies.
 - The UGOT funding policy may be perceived as a disincentive to prospective future staff.
 - It is not very clear how the research funding benefits those who are bringing in the highest amounts of funding. How does funding from internal competitions (e.g. UGOT Challenges) contribute to the funding equation?

Recommendations

- Discuss internal funding parameters so that there is a balance between basic funding and funding based on performance (the ratio between these was hard to tell from the self-evaluation). Internal funding that is totally based on performance, might run the risk of “throwing money at money” and might lead to short-sighted strategies, and in the worst case a fast-downward spiral for departments that (temporarily) are unlucky in external applications.
- Are there ways for the faculty to support or further develop a more stable and regular rhythm of PhD and postdoc positions? The planned sabbatical programme for younger researchers might be an interesting and good step here.
- Infrastructure funding may be a substantial drain on the faculty’s budgets. It is important to assess the contribution of infrastructures to departments and research output and also look for self-funding models through service to society (e.g. change the model of users) or by transitioning to university budgets. There are interesting possibilities for Kristineberg and Tjärnö, and a real interest and enthusiasm from staff to shift the current paradigm (e.g., Kristineberg – involve more external users, migrate away from total dependency on the university).
- It is unclear if research funding contributes to teaching and if yes in what way and are there incentives?
- The capacity of the Grants and Innovations Office to respond to an increase in external funding and to provide support for applications presumably is limited and there are suggestions by departments to have someone in the department level to assist. However, this will dilute resources and is unlikely to be cost-effective, so it may be beneficial to bring additional Grants and Innovation staff into faculty-level administration.

B5. Feedback and evaluation

Strengths

- Feedback mechanisms are in place although the actions in response to feedback are not clearly stated.
- Feedback occurs at several levels, although it tends to be a top-down approach.
- Feedback for PhD training is obtained through a 6-year evaluation by an external board and a plan for improvement is prepared that is followed up yearly.

Weaknesses

- The system of feedback and follow-up is time consuming and concentrated on the Head of department increasing their administrative load.
- The potential outcomes in response to feedback are unclear. Moreover, the character of the feedback which is requested is also unclear.
- An evaluation of the benefits of the current system is not provided and the efficacy of the procedure in use is difficult to establish.
- The objective of the feedback in relation to research is not very clear but seems to be mainly linked to performance-based internal funding (it is unclear if this is individual or for the department as a whole).

Recommendations

- A feedback system to assess the quality of administrative and management procedures with the perspective of identifying weaknesses and ways in which it can be improved would be relevant.
- Is feedback limited to the performance-related internal funding and if so, what are the criterion for this point and is this monetary or in-kind payment? What are the metrics used to assess performance-related internal funding? It was unclear if this procedure was harmonious across all departments or different models existed? It may be worthwhile re-evaluating performance assessments and the applicability of a single scale across departments, since there may be situations where this will penalise some departments unfairly because of the character of their research outputs and funding possibilities – this is a sensitive issue and needs to be carefully considered.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- There is a strong record of collaboration between the Faculty of Science and Chalmers University of Technology, particularly in relation to mathematics, physics, chemistry and molecular biology.
- There are strong collaborative links and networks between the Faculty of Science departments, research centres and external parties, as revealed by the long list of institutions and networks with which they collaborate.
- The new faculty building will intensify and improve interdepartmental collaborations as a greater number of departments will be housed in the same building and specific spaces are allocated to promote collaborations.
- Active initiatives at the faculty level to visit potential academic partners in the US.
- Development of research platforms to promote more research collaborations within the university.

Weaknesses

- The effectiveness of collaboration is unclear as very little information is provided. The positive outcome for research arising from collaborations could be made more visible.
- The goals and benefits of establishing collaborations and how they fit the research vision of the university are not clear.

Recommendations

- It was unclear to the panel if collaborations take place in the context of projects. To consolidate and develop meaningful collaborations, one mechanism could be to establish a project (with or without funding) with objectives, a workplan and expected deliverables. This would help monitor the impact and outputs of collaborations.
- For institutional collaborations, projects such as UGOT Challenges may be an effective way to establish interdisciplinary research and forge stronger links between departments and faculties. It will be important to determine if these projects establish meaningful and sustainable collaborations and if they have an impact on departmental research and education. Impact should be considered at the level of UGOT, nationally and internationally.
- Establish a forum for interdepartmental or interfaculty collaborations at an institutional level. This could be promoted, SWEMARC comes to mind here.

C1.2 Collaboration with external stakeholders

Strengths

- The inclusion of external stakeholders in the faculty board since 2018 is a positive action with the benefit of engaging the community in the faculty's vision. It may also be of interest to include members from a different faculty in the board, or in one of the advisory boards, to facilitate knowledge transfer, cohesion and spreading/more rapid uptake of beneficial actions.
- Collaboration with external stakeholders extends the access of departments to important research collections or infrastructures and provides access to experts and promotes collaborative projects.
- The faculty magazine is an excellent initiative to divulge important events, advances or introduce new staff and initiatives to existing faculty members and also other stakeholders.

Weaknesses

- Formal interactions and engagement with industry-based stakeholders are not clear from the identified collaborations.
- The importance of the Faculty of Science and its research for the region's needs and policies is not clear from the self-evaluation, as policy or regional agencies do not appear to be integrated stakeholders.
- The nature of collaborations with external stakeholders is not very clear as the characteristics of the interactions are not specified e.g. use of services, deployment of staff at regional or national events etc.

- Dialogue between researchers and the Grants and Innovations Office is good but this may not stimulate successful collaborations with external stakeholders.

Recommendations

- Strengthen interactions with external stakeholders by clearly defining what the faculty has to offer and establishing means of communication and dialogue. Consulting existing stakeholders that collaborate with the faculty about the benefits they gain from the interaction and what motivates them could be helpful.
- Several of the departments are conducting society-relevant research and the faculty management should look for ways to establish a role in regulatory processes or policy development, through the exploitation of their unique infrastructures or experts. Establish how many of the staff are engaged in interactions with external stakeholders and what measures could facilitate this process.
- It is essential to identify exactly what the faculty seeks in relation to collaborations with external stakeholders. This is a time-consuming process and requires constant engagement and promotion and there should be a careful cost (time, people, resources) – benefit analysis and establishment of priorities. The institutional support that the faculty can provide will be important if they want to stimulate staff to engage meaningfully with external stakeholders.

C2. Relevance and impact on society

Strengths

- There are a number of mechanisms through which the faculty engages with society: the field stations, collaboration with municipalities, traditional and social media, the Gothenburg science festival.
- The faculty has a press officer that can assist researchers in science communication.
- Foresight actions aimed at mapping the faculty's research and education to UN2030 sustainability goals as a means to increase the awareness about the relevance of the faculty's mission.
- The authorities seek out the assistance of UGOT and 50% is referred to the Faculty of Science to consider and issue recommendations.
- The faculty recognises that the lack of a reward system for activities directed at society is a limiting factor.

Weaknesses

- The faculty policy and strategy in relation to their expectations about the role of departments in relation to engaging society is not very clearly stated. Do the faculty management expect all departments to engage to the same extent? Have the faculty established what are the most effective routes of engagement? Is there a common message and emblem from the Faculty of Science? Is this a truly faculty-led exercise or is it piecemeal and patchy and dependent on departmental initiatives?
- It is unclear what mechanisms have been put in place by the faculty to promote

the translation and use of science outcomes for the benefit of society (does not appear to be mentioned in the report).

- No practical examples of the application of research-based knowledge were encountered e.g. strategies, policies, rewarding mechanisms. The general approach to ensuring societal impact at the faculty level is unclear.

Recommendations

- The faculty should formulate a clear strategy and policy in relation to ensuring societal impact. Clear guidelines with expectations and deliverables should be provided. This could be discussed and established at the level of the faculty board. The relative weight and importance of these measures and rewarding mechanisms should be clearly established, and the role of departments and researchers in this process should be clearly defined.
- Mechanisms for the translation and transfer of society-relevant research should be clearly established. Engagement at an institutional level is essential to ensure full support for all actions. The unique infrastructures that the faculty has could be relevant for the engagement of different sectors of society and demonstrate the value and utility of infrastructures and UGOT.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- The link between research and teaching is continuously reviewed and engages external reviewers.
- The appointment board of new staff gives due consideration and recognition to teaching skills during recruitment and does not only focus on research.
- International researchers are recruited and teach in English from day 1 on master's programmes and in this way their expertise is integrated into courses and teaching.
- A relevant budget allocation is made to laboratory-based teaching and field courses.

Weaknesses

- Not evident as the report is focused on research.

Recommendations

- The lack of information in relation to the teaching programmes and the proportion of material and disciplines that are directed at engaging students with research (outputs or practice) means the importance of research is not easy to establish. The Department of Biological and Environmental Sciences reports that with the shortfall in PhD students the MSc students have an important role in research. This may be beneficial for the students but is not the most efficient way of doing research and there may be issues in relation to reliability and quality of outputs.

- The feedback from students and staff in relation to this aspect would be beneficial, does the faculty conduct analysis?
- It is not totally clear how the research-teaching link contributes to quality. The panel would like to hear from the faculty the benefits they expect in relation to research quality through the research-teaching link. Unfortunately, there was not time to address this point during the on-site visit but this is an important challenge that should be carefully considered.

C3.2 Doctoral education

Strengths

- The faculty is aware of the urgent problem of the low number of PhDs and aims to communicate strategies and measures to improve recruitment.

Weaknesses

- Extreme drop in PhD student numbers.
- Lack of organised PhD programmes.

Recommendations

- The faculty should establish this as a priority and aim to make funding available for PhDs. The faculty indicates they do not interfere in recruitment by departments. However, the importance of increasing the intake of PhD students means that extraordinary measures should be contemplated to promote hiring of PhDs.
- The faculty needs to establish what factors underlie the drop in PhD recruitment (as well as the change in law) and identify mechanisms to reverse this trend. This should be considered at an institutional level. Is it only the Faculty of Science that has seen this trend? Is this a generalised trend across the departments? Questionnaire to establish why students do not consider a PhD as a relevant career choice; records about what past PhDs are doing and related metrics should help define the benefits of doing a PhD at the Faculty of Science.
- Active engagement in ERASMUS mundus and related funding or MSCA early training networks is a pertinent way to increase funding and also raise the training profile of the science faculty at the PhD level.
- There has been a drop in the number of PhD students more or less all over Sweden due to the change in employment conditions for PhD students that has led to a substantial cost increase. The consequence is a shift towards young postdocs, resulting in shorter and lower funding responsibilities. However, it is important to analyse what balance is beneficial between PhD students and postdoc, since these represent different goals in the academic system, all being of importance for a complete environment. Is this kind of analysis done already by the faculty and departments? If not, it is recommended.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The faculty communicates and raises awareness about research initiatives and awards.
- An advisory board in the faculty is an inclusive body, which functions as a means of communication between faculty and departments and includes student representatives.
- The faculty has a clear position and role in relation to ethical conduct (seems to be mainly directed at students, but inclusion of staff for refreshers may be relevant).
- A faculty forum promotes and provides the opportunity for intellectual exchange between staff across all departments.
- The faculty has an annual celebration and notes the contribution of staff through PhD thesis and pedagogic awards.
- A positive action which is commendable (but challenging) is the current faculty-wide exercise to determine space allocation, department infrastructure, collaborative spaces, and room design in the new science building.

Weaknesses

- It is not very clear what intellectual interactions occur (number and frequency, forum and attendance).
- The role of internal and external peer review and other measures to strengthen collegiality are unclear. The fact that the faculty is currently a distributed structure is a challenge in terms of bringing faculty together.
- The ways that the faculty is promoting creativity and supporting research ambition are not clearly stated in the self-evaluation, and the faculty does not identify clearly the current and future perceived challenges.
- Of concern to the panel is the tendency to indicate how the new research building that will house the faculty will resolve a number of problems. The building will only be ready in 2023 (assuming there are no delays). What will the faculty do until then to solve the challenge of running a faculty as a dispersed structure that offers equal conditions for all and generates cohesion?

Recommendations

- The faculty needs to have plans and contingencies for their current challenges now and not place too many expectations on the new faculty installations. There will be challenges running the Faculty of Science under the same roof and, since this will only occur in 2023, it is important to identify procedures and the means of creating a stimulating environment that supports and promotes research excellence in the current structure. A major concern and issue is the rental model that will be applied for the building; there is concern that the expected increase in rent may bankrupt the departments and faculty. Contingency planning and simulation of cost scenarios and models as foresight planning is essential.

- A lot of attention is being given to the planning of the move to the new building and a coordinator has been appointed to discuss this with departments. However, there is the risk that some things will stop because staff may decide to delay actions until the move, and this will mean a 4–5 year delay. A strategic plan needs to be developed to ensure the pace of research remains constant in the years leading up to the occupation of the new installations.

D2. Publication strategy

Strengths

- There is an awareness by the faculty in relation to the limitations and impacts of bibliometric tools, particularly since they are not suitable for the research output of all departments.
- The faculty aims to establish a means of obtaining easy-to-access statistics on publication trends and use this to propose new strategies for creating an active research environment.

Weaknesses

- The faculty policy on open access is unclear. Fewer than expected publications are open access even though most major funding bodies now require open access.
- The faculty does not clearly indicate their strategy for publications and does not steer publication strategies directly (although it does indirectly through funding).
- Alternative metrics and means of measuring output should be considered, and the position of the faculty in relation to recent moves in journal impact factors should be clarified. The faculty should explore alternative means in consultation with departments of relevant metrics other than bibliometrics.

Recommendations

- The panel considers that strategic guidelines should be developed by faculty in collaboration with the faculty board in relation to research quality and publication, crafts, patents etc. and other pertinent outputs that should be part of the drive for research quality and excellence.
- The use of funding as a means to influence publishing is probably not the best way to improve the research performance of the faculty, and the role of the leadership should be to establish through dialogue the role of publications amongst other potential outputs for the faculty's reputation.

D3. Facilities and research infrastructure

The panel has become aware of a serious threat for the Faculty of Science as it seems there is no clear management system in place for the planning and construction of the new building, including the transition period when staff, students, laboratories and infrastructure may have to be reallocated to temporary locations. The breakdown of a functional university system before and during relocation will have predictable, large negative consequences. For the panel, this seems to be a very urgent matter to deal with, since the university is at present in a process of starting several long-term investments in new buildings. If not professionally handled, this

may not only incur long-lasting economic consequences for the whole university, but it could also have a negative impact on the quality of research and education, as well as on the trust of leadership at all levels, which in turn could have very negative consequences for the long-term development of the university. An example of this, which directly impacts the Faculty of Science, is new building “Naturvetenskap Life”, which is already causing an enormous amount of additional work and great worries for the leadership and the staff of the departments involved. However, it should still be emphasised that the departments are looking forward to the new building and the opportunities for closer collaboration it will bring.

Strengths

- The faculty hosts research and teaching facilities of national and international importance and increases UGOT visibility and engagement in a broad scope of research, which is a benefit for co-funding initiatives and potentially attracts more collaboration and funding for the faculty.
- The faculty’s researchers can take advantage of equipment and resources that are unique and are not available in standard research labs, which has the potential to increase the impact and visibility of their research.

Weaknesses

- The relatively high number of research facilities and infrastructures is a financial drain that may negatively impact the budget allocation for departmental research.
- It is not clear if the benefits of all the research facilities outweighs the costs and if there is sufficient need to fully justify their existence. This can be a drain on time, personnel and also dilutes research focus.

Recommendations

- The faculty/university is urgently recommended to create a system, including professionals to handle the total process associated with the new buildings.
- The cost of heavy infrastructure has grown to a big and common concern in the academic system in Sweden, for both moderate and heavy infrastructures. The responsibilities for managing infrastructure from different perspectives has more clearly been shifted towards the c. 10 largest universities in particular. This is a national challenge and it is imperative that UGOT is involved in national decision-making in this respect, and must therefore be represented in national committees so it is involved in decisions about present and potential future national infrastructures.
- It is indicated that the faculty does not run the infrastructures; the management of these is at the departmental level. A good example of this within the Faculty of Science is the Swedish NMR centre. The responsibility for this centre is allocated to the Department of Chemistry and Molecular Biology, which may, due to running costs, become devastating both for the infrastructure and for the responsible department should the financial burden change or the budget of the department. It is recommended that the university and faculties together take a stronger grip on administering heavy infrastructure, to ensure effective

planning and to meet the challenges and opportunities of funding and administrative issues (e.g. availability to internal and external users, fees, operational costs, agreements etc).

- Enhance interdepartmental communication to promote intellectual and economic collaboration and optimise utilisation of “core” facilities / resources. For example, ensure that the use, availability, and future of major infrastructure such as the Kristineberg marine field station are planned with the involvement of all the departments having a vested interest and ensure they are optimally integrated into broader research and educational programmes, with sure financial footing (e.g. diversity of support sources).

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The faculty is aware and has clearly embraced “*gender mainstreaming*” with a number of pilots in place and identified measures and mechanisms to circumvent gender bias.
- Active actions have already been taken and yielded positive results in relation to gender balance.
- The faculty is aware that the limited number of women in departments means that they can become overloaded with committee work, which negatively impacts their research time. There is no easy solution for this problem.

Weaknesses

- Monitoring measures need to be in place to ensure that a future gender problem is not created.
- Other equal opportunity measures for minority groups seem to be largely missing from the agenda. It is important to also consider other measures to ensure close monitoring of the impact of measures.

Recommendations

- The large-scale retirement that the faculty/university is facing represents an opportunity for gender mainstreaming. However, medium and long-term modelling is required to ensure a balanced approach and outcome is possible. Special attention and measures should be taken in relation to scientific areas that have a chronically low recruitment of women and minorities.
- Establish a mentoring system to stimulate fixation and promotion of young women.

D4.2 Internationalisation

Strengths

- Strong internationalisation is favoured in the recruitment process to favour researcher and teacher mobility.

- Deployment of existing co-funding/funding opportunities to promote and nominate internal or external recruitment of young talented researchers and offer additional research support.
- Promotion of staff sabbaticals to stimulate internationalisation.
- The faculty has identified a number of mechanisms to promote staff internationalisation through extending the sabbatical programme and promoting mobility of PhD students through similar mechanisms.

Weaknesses

- It is not very clear how internationalisation of the infrastructures, research facilities and research groups at the Faculty of Science occurs, is there a general communication package? How is the faculty made visible in international fora?

Recommendations

- The faculty should evaluate actions for internationalisation at the level of faculty infrastructures and the research environment. A clear corporate message should be established, and a communication package prepared and used to divulge the faculty internationally. It is unclear if this is already established at the university level. Objectives and perceived impacts of internationalisation should be identified and a plan of action defined. This may be something that should be discussed at the university level since it is relevant across all faculties.
- Integration in European or international research networks or infrastructures is an important route to internationalisation. Incoming researchers can be key to internationalisation and also a source of future students and researchers/teachers. Consideration should also be given to developing an incoming programme.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The role of faculty in financial support of research and administrative support of management and boards and committees. A strong point is the co-financing of research infrastructures, top-level awards as well as EU projects.
- Planned improvements are relevant and timely but it will be important to engage strongly with staff and Heads of Department to ensure measures proposed for harmonising “norms” across faculty departments are accepted.

Weaknesses

- The faculty has identified a number of problems with the current model for administration. Departments have their own administrative staff, which is beneficial to deal with immediate issues and support the Head of Department. However, depending on the level of support, staff can be burdened with administrative tasks and this varies across the departments.

- There appears to be limited availability of additional staff if they are absent because of sickness or other issues.

Recommendations

- The faculty should further explore external research funding opportunities and determine whether co-funding should be made available or is viable for such programmes.
- Co-funding may be a means to stimulate research and innovation actions and collaborations with industry or to strengthen research and teaching.
- The faculty should evaluate the situation with “in-house” administrative staff and whether administration could be simplified, administrators given incentives and a potential career track established. It should be noted that many of the administrative staff are women and are confronted with the same restrictions faced by women researchers. It may be worth having a “small pool” of administrative staff that rotate between departments to fill in for sick or absent colleagues, or to permit other staff to take further training. The shortage of administrative staff and lack of a clear career-track inside departments/ faculty means there is a high turnover and shortage, and this is a cause for concern.
- Recruitment and the career structure of research engineers should be evaluated as the high number of research infrastructures makes well-qualified research engineers important for maintenance and support of equipment users.

E2. University-wide support

Strengths

- In 2018 a university Research Board was formed with representative from all faculties (Vice Deans and Pro Deans). This is clearly a potential mechanism to establish and promote the research agenda and concerns to the Vice Chancellor, but should also be seen as the structure that can engage and represent UGOT in national structures concerned with research.
- Provision of university-wide library and IT research and policy is a strength.

Weaknesses

- No major weaknesses detected.

Recommendations

- A common agenda should be established in dialogue with other faculties to identify priorities that are university-wide issues. Many of the concerns identified with departments and faculty management are issues that should be addressed at the university level as they are transverse issues. For example, research strategies and establishing research priorities, strategies for recruitment, retention and reward, strategies for infrastructure management and maintenance, the need to boost admitted PhDs etc.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Each of the departments in the Faculty of Science has endeavoured to follow the recommendations of RED10. It should be noted, however, that the successive restructuring actions carried out since RED10 mean that all recommendations do not apply or are difficult to perceive in the new structure. Refer to the departmental reports for specific departmental details about the implementation of RED10 recommendations.

CONCLUDING RECOMMENDATIONS

Executive Summary

- The faculty should request the departments to develop strategic plans that outline coherent overall goals of the department, both in the short and long term. These plans should be realistic and incorporate hiring strategies, for example, and areas where departments should excel. Consideration should be given to utilising interactions with other departments to expand coverage and create synergy within the faculty or between faculties. How will overall research plans interact with educational programmes? The role of the faculty should be to motivate these strategic plans, and following their development, to provide administrative and financial support to ensure that the plans have a high probability of success. In the context of these departmental plans, the faculty should develop a broader strategic plan at the faculty level.
- Substantially increase the number of PhD students to become more nationally and internationally competitive and raise visibility. One possible model is to underwrite 50% support as a co-funding incentive to convert external support for a single student into support for two. Students might be staggered in time (e.g. two years) to promote greater continuity between students within lab groups and departments.
- Enhance interdepartmental communication to promote intellectual collaboration and optimise utilisation of “core” facilities / resources. For example, ensure that the use, availability, and future of major infrastructure such as the Kristineberg marine field station are planned with the involvement of the departments having a vested interest and are optimally integrated into broader research and educational programmes.
- Promote formation of intellectual teams that span departmental boundaries, potentially creating outcomes that are greater than the sum of their parts. A strategy in doing so might include encouraging joint and affiliated appointments of professors / teachers across departments and facilitating sharing of PhD students.
- Ensure that measures of productivity and the value of research activities used in determination of resource distribution (block funds) are consistent with the field considered, for example, bibliometric measures from the Web of Science

may not be appropriate for all fields within the faculty (e.g. Conservation).
“One size does not fit all”.

- Increase communication with the public regarding faculty activities; in particular, elevate the importance of outreach and emphasise connections between research, public welfare, and policy initiatives. Outreach activities could utilise cross-faculty collaboration with Social Sciences and Arts (humanities) to determine optimal approaches.
- Institute a system of “seed” funding that allows promotion of new initiatives within departments and faculty without wholesale redistribution of block fund resources.
- Consider creating REU (research experience for undergraduates) programmes across the faculty that not only enhance undergraduate educational training but may aid recruitment into 2nd and 3rd cycle groups.

DEPARTMENT OF BIOLOGICAL AND ENVIRONMENTAL SCIENCES

304	Introductory Remarks
306	Section A – Background and Research Standing
306	A1. Background
310	A2. Research standing
312	Section B – Leadership
312	B1. Leadership
314	B2. Recruitment
315	B3. Career structure
316	B4. Funding
317	B5. Feedback and evaluation
318	Section C – Complete Academic Environment
318	C1. Collaboration
319	C2. Relevance and impact on society
320	C3. Research-teaching linkages
322	Section D – Academic Culture
322	D1. Academic culture
322	D2. Publication
324	D3. Facilities and research infrastructure
325	D4. Transverse perspectives
326	Section E – Support
326	E1. Internal research support
327	E2. Faculty and University-wide support
328	Section F – Other Matters
328	F1. RED10 evaluation
328	F2. Other matters
328	Concluding Recommendations

INTRODUCTORY REMARKS

Background of the panel

All the panel members are from outside the Swedish University system and have no formal association with the University of Gothenburg (UGOT). One panel member works in a public museum in Sweden, so is familiar with the national research funding system (Fredrik Ronquist), one works in a university in the US (Scott Edwards), and the third works in a university in Portugal (Deborah Power). All the panel members are active researchers in different areas of Biological and Environmental Sciences and between them bring experience in research administration, funding and publishing. The panel is coordinated by Deborah Power who was nominated by RED19. She set the scope of the evaluation in the context of the guidelines set-down by RED19 and requested additional background information to increase understanding of the research ecosystem in Sweden, so that the potential influence of regional or national strategies on UGOT's research mission and success could be placed in context. The increasing internationalisation of research agendas means that research quality and research evaluation need to consider the influence of the European and international research strategy and how the Department of Biological and Environmental Sciences (BioEnv) engages with it.

Panel working method

FR and SVE had some previous academic interaction and were aware of each other's work but had never published together. Otherwise the panel members were unknown to each other and had no contact prior to their appointment to the panel and so the first task, carried out via skype, was for the panel members to introduce themselves and then to mutually identify and agree on their remit and the approach to be taken for the evaluation.

The baseline for Research Evaluation for Development 2019 (RED19) was well defined and established in the documentation provided to the panel. Documentation included the RED10 report, and the self-evaluation document from BioEnv and associated annexes (supplied by RED19). Additional documentation was requested by the panel coordinator after review of the documents provided, in order to establish more clearly, 1) characteristics of Swedish higher education and the position of UGOT and 2) the national position of UGOT.

The remit defined by the panel was based on the guidance provided by RED19: namely, to evaluate the research performance of BioEnv, establish how it is promoted by management at different levels within the institution, and how the research ecosystem influences and benefits from education and public outreach. Overall the panel saw its engagement in RED as a means by which they could contribute constructively to strengthening the research quality and performance of UGOT. Moreover, they considered the RED project commendable and agreed that it showed a serious institutional commitment to quality and excellence in research.

The panel's working method involved each member conducting an independent evaluation of the documentation provided. The first sections of the report were drafted by the coordinator and the document was then circulated between the panel members to finalise the drafting process. The report template was completed by each panel member following the proposed approach in the report instructions; the main strengths and weaknesses of BioEnv were identified using the self-evaluation report and the diverse annexes provided for the various elements under evaluation. This was the basis for identifying potential strengths/opportunities for further research development in BioEnv. The completed panel members' reports were provided to the panel coordinator, who then integrated the responses into a common draft report. A follow-up meeting was held via Skype after distribution of the general report, in order to discuss the main points identified by the panel to ensure that all aspects of the panel remit were covered and to approve the consensus report. During this process the panel identified and drew up a "short working document" of questions and queries for the on-site visit. This document included the main areas for which further information was required; specific questions in relation to procedures and mechanisms of action in the department; and specific groups of departmental staff members with which the panel wished to meet.

In parallel to the meetings and work of the BioEnv panel, the panel coordinator contacted the Head of Department (HoD) and held an informal Skype meeting. The Skype meeting served as an "ice breaker" and permitted clarification of some of the processes and procedures in BioEnv that, due to the brief nature of the self-evaluation report, were not fully documented. Additional relevant information was gathered, and relevant aspects not covered in the report were also discussed. The site visit schedule was agreed upon, and any other issues arising in relation to the BioEnv report were resolved. Specific questions were raised by the panel coordinator in relation to the age profile of the docents of BioEnv and their productivity; the reason for the shrinking number of docents since 2013 and the implications for research and teaching; the research centres and their articulation with the research mission and docents of BioEnv; and how the department and research centres interact. The coordinator of the BioEnv evaluation process prepared a document listing the main questions and concerns of the panel arising from the self-evaluation document.

The site visit and interactions with BioEnv took place on 2–3 April 2019. During this time the panel met with the HoD and representatives of the main functional bodies of the department, as well as representatives of the PhD students. The on-site visit gave the panel the opportunity to directly discuss issues identified during the lead-up to the visit. The panel sought clarification in relation to doubts they had, together with the opinions of BioEnv representatives in relation to their identified strengths, weaknesses and future challenges. After the site visit, the panel modified their report so it contemplated the responses given. They also sent the revised report to the HoD of BioEnv to gather their feedback, ensure that it was factually correct, and to identify sundry issues not covered in the report that BioEnv considers important.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The self-evaluation report provided to the panel was comprehensive and complete, and the panel commends the department on the clear and concise document. The schemas and charts were very helpful, and overall it provided helpful insight into the general structure of the department, its management, and the various research groups that make up its structure.

Background information about the department

The Department of Biological and Environmental Sciences was formed in 2012 by fusing the Departments of Plant and Environmental Sciences, Zoology and Marine Ecology, and in 2015 a large proportion (c.30%) of the departmental staff joined the new Department of Marine Sciences. The current department is thus a product of two large reorganisation events in a very short period of time. The institutional reasons and mechanism underpinning the creation of the BioEnv department and the subsequent restructuring were not known to the panel. It is expected that this merger may have impacted the performance of the department and it is not entirely clear to the panel how comparable BioEnv is to the previous structure evaluated in 2010. Similarly, it is unclear to the panel if, as a result of the reorganisation, the recommendations of the RED10 panel were totally relevant and if implementation was fully feasible and would have the expected impact. Nonetheless, as pointed out in BioEnv's RED19 self-evaluation (section F) the research groups remain and, irrespective of the restructuring and renaming, the research in the department has retained international relevance and timeliness. Furthermore, despite the apparent reduction in staff numbers and the aging staff structure, the productivity of BioEnv has been very good-to-excellent in the panorama of other UGOT departments.

Department organisation

The department has 140 employees and is spread across three locations: the Botany building in the Gothenburg Botanical Garden, the Zoology building on Medicinareberget in Gothenburg and Kristineberg, a marine research station near Lysekil. Clearly, management and leadership of a distributed department is not straightforward. The panel would have liked a bit more information in relation to the logistical challenges and how they have been overcome and the potential impact of this on research performance. Some of these questions were answered during the on-site interviews.

The panel notes that BioEnv will move to new premises (*Naturvetenskap Life*) at Medicinareberget in 2023. All groups, except for those in the Kristineberg marine station, will move. It was unclear from the report if this is seen by staff members as advantageous or not for BioEnv. The move to the new premises was discussed repeatedly during the interviews but several questions and concerns remain.

The department hosts four major research areas that are reflected in the educational programmes:

1. Evolutionary ecology and conservation biology,
2. Physiology and cell biology,
3. Environmental sciences,
4. Systematics and biodiversity.

The department is involved in four research centres, three of which received funding after successful applications to the UGOT Challenges scheme:

1. FRAM, *Future chemical Risk Assessment and Management strategies* (<https://fram.gu.se/>), environmental and health effects of chemical mixtures, (UGOT Challenges).
2. SWEMARC, *the Swedish Mariculture Research Centre* (<https://swemarc.gu.se/>), sustainable marine aquaculture, (UGOT Challenges).
3. GGBC, *the Gothenburg Global Biodiversity Centre* (<https://ggbc.gu.se/>), biodiversity research through exploration, education, etc.
4. CeCAR, *the Center for Collective Action Research*, (<https://cecar.gu.se/>) current global challenges (e.g. climate change, antibiotic resistance, plastic pollution).

Strengths

- The research areas are timely, and the research groups tackle both basic and applied research in highly strategic areas that are in tune with current global challenges, e.g. UN, Food 2030 etc. The focus on topics that cut across organisational specialities is scientifically relevant and provides a good platform for addressing societal challenges.
- BioEnv was highly successful in the internal competition to create and host research centres, and therefore is highly competitive (excellent) in relation to other departments as they host or actively participate in 3/6 UGOT Challenges centres.
- Research centres are a good mechanism for building critical mass in given research areas and promoting interdisciplinary research and this is very positive. However, the benefits/added value for BioEnv and its research groups is not clearly stated in the report.
- BioEnv hosts high-performing research groups led by young researchers.

Risks/considerations

- Considerable disparity in the size and staff composition of the different research groups with some being much more productive both in relation to research funding and research outputs than others. Taking into consideration the recent restructuring of BioEnv, it would be helpful to have some indication of why the research areas and groups exist and if there were any specific criteria in relation to their clustering. Information about strategic steering of the research areas, the articulation between research areas and research centres, mapping of staff

to the research centres, the management of the research centres, and the benefit of the research centres for the department, would be appreciated to make an assessment of their value to BioEnv.

- In the self-evaluation, the BioEnv research strategy/ambition in specific research areas is not clearly stated. The justification for the choice of research areas is not articulated and the strategic steering of them is unclear. These questions were partly clarified during the site visit, but the panel still felt that the research areas were somewhat arbitrarily defined, and that they could be a constraint in the future strategic development of the department, for instance in defining prioritised areas for hiring. It also seemed like there was room for more interaction between research areas. The panel identified a risk of not achieving enough critical mass in some areas due to retirement of staff, or due to a significant portion of the staff being more engaged in research centres than in their own research area.
- The centres are clearly in very different situations. The GGBC is funded at a smaller scale than the others, and its future is less certain given that its founder and former director, Alexandre Antonelli, recently took up the position as Director of Science at Kew Gardens. However, long-term sustainability is a potential issue for all centres. GGBC and SWEMARC appear to be particularly well integrated, but all centres clearly have important benefits for departmental activities ranging from education to outreach. The centres are likely to create a lasting legacy through the new links they forge between departmental research groups and outside partners or other UGOT research groups with no previous history of working with the department.
- Insight into the BioEnv strategy for space management, research area priorities for PhD funding support (4th year only), teaching distribution and hiring would be helpful. Furthermore, indication of the articulation of this strategy with the faculty strategy and management would be relevant. During the site visit it became very clear that an overriding concern was the sharp decline in the number of PhD students over the past decades. It was also emphasised by the BaBOR and others that hiring priorities were driven mainly by teaching needs, while the panel felt that there should be more discussion of research area priorities. The panel also felt, following the site visit, that some additional flexibility in teaching, research and outreach assignments to individual researchers could be beneficial.

Recommendations

- Define strategic research priorities/areas for BioEnv; this will be important for future recruitment and building/maintaining critical mass in research. The panel felt that recruitment could be made in carefully chosen, prioritised research areas, while still allowing the department to fill its teaching needs.
- Consider redefining the departmental research areas or strengthen the interactions between them.
- Consider whether it would be advantageous to restructure the departmental organisation after the move to common premises.

Structure of the leadership

The presentation of the leadership structure is commendable it is very clear and easy to understand in the department's self-evaluation report. The chart provided demonstrates the structure and foreseen interactions between the leadership members. The HoD appoints assistant HoDs. The geographical dispersion of BioEnv is a challenge and raises questions about how the management structure responds to the challenge. The panel would have appreciated more information in the self-evaluation about how all departmental needs are contemplated in decision-making. However, this was clarified during the site visit.

Strengths

- Democratic system.
- The workload is shared among five assistant HoDs (one for education, one for research, one for cooperation, and two for personnel) and each holds a specific portfolio, which should ensure effective management of each specific mission.
- The HoD maintains close contact with departmental members and demands through integrating representatives in the management team. This is inclusive.
- Commitment to gender balance.

Weaknesses

- A high number of HoDs may lead to lack of articulation between key areas of BioEnv's mission. This seems to be a risk since HoDs for education, research, and cooperation run their own Advisory Boards, and the Director of PhD studies runs an Advisory Board consisting of PhD examiners.
- The size of the management team may reduce the effectiveness of decision-making and the response time of BioEnv management.
- There is a low frequency of meetings between the HoD and management team.

Recommendations

- Consider simplifying the management structure.
- Increase the frequency of meetings between the HoD and management team.
- Establish clear mechanisms to ensure integration and effective management for the dispersed department. Actions to ensure that the decisions taken by BioEnv are of benefit and strategically relevant for all members of the department.

Organisation and structure with respect to creating high-quality research

The panel identified the following challenges or areas for potential improvement:

- The geographic distribution of BioEnv represents a challenge for intradepartmental interdisciplinary research projects. Clearly residence in the same building will facilitate such projects. Effectively planning the use of space in the new building could encourage more intradepartmental interaction.
- The four main research areas in BioEnv are quite disparate and more integration between research areas should be a priority. This integration could be facilitated by faculty hires in areas that bridge different research areas (for example in

- molecular biology of non-model organisms).
- Synergy between BioEnv and the Department of Marine Sciences should be promoted. There is a potential benefit for creating a scientific critical mass and synergies of strong interaction between these departments. Discussions during the site visit reinforced this conclusion. Reinforcing actions could include the creation of joint-degree courses that build on the strengths of each department.
 - With respect to research strategy/hiring strategy, it was not clear to the panel from the self-evaluation document what the department's procedure for planning and decision-making was, and how the faculty management fits in this process. During the site visit, the panel identified it as an important priority to clarify the rules of procedure and the roles of the department and the faculty in the decision-making process. Collective planning is essential to growing the department in ways that promote innovation and collaboration.

A2. Research standing

Strengths

- The four research areas span a wide range of topics and levels in ecology and environmental biology. The major research strengths in BioEnv appear to be: 1) evolutionary ecology, including sexual selection and human aging; 2) plant physiology, photosynthesis and adaptation to climate change; 3) fish physiology and toxicology; 4) plant biodiversity and systematics. UGOT appears to be one of the global leaders in the area of plant biology and diversity. Combined with the excellent facilities of the Gothenburg Botanical Garden, this is a major asset of BioEnv. Through the recent UGOT Challenges project SWEMARC they have reinforced their position in sustainable aquaculture.
- All of the topics are exciting and relevant to basic and applied biology today. Across the spectrum of research themes, there are a number of high-profile contributions. The number and quality of reviews of specific areas (for example, monogamy, polyploidy in systematics) demonstrates considerable breadth and depth.
- Overall, the standing of the department's research is strong, yet on the border between above average and average. The standing varies across disciplines: plant biology appears to be quite strong and above average, whereas evolutionary ecology is strong but perhaps no stronger than other major universities globally. The programme in fish endocrinology is very strong, albeit relatively small, compared to some universities with entire departments of fisheries.
- The main aspirations across individual research groups are to replace aging staff, and to ensure adequate graduate student and postdoctoral support for these new staff. Research engineers are needed in virtually all groups. These aspirations are certainly achievable but are perhaps less visionary than they could be.
- Across BioEnv as a whole, there are aspirations to maintain and benefit from the major university-supported programmes (GGBC, FRAM, SWEMARC, CeCAR) in which the department participates. There is also a goal to increase the number of high-profile external researchers visiting the department. In-

creasing the number and quality of graduate students are perennial goals, as is increasing gender equity. All of these goals are reasonable, but the question is how will they be achieved (especially the latter two goals)?

Weaknesses

- There does not seem to be much coordination of aspirations among the four research units. Many of the research-group-specific aspirations were redundant and overlapping with those of other groups.
- It would be helpful to have more specificity about which fields would be represented among new faculty recruits in the self-evaluation report. What are the dynamic and emerging fields that will be a focus of new staff hires? Is the department thinking broadly enough beyond the four research areas that form the comfort zone? Even within research areas, where are the leading areas? For example, in behavioural ecology? During the site visit, it became clear that the hiring decisions that are being made are based almost exclusively on perceived teaching needs. Is the Norwegian Level 2 standard a useful one for the department? Is there any thought to comparing research impact with other UGOT departments or numbers of papers in specific high-profile journals? The overall research profile of the department could be considered somewhat patchy, given its exceptional breadth. It is less common to have both applied and basic science in the same department, and as a result it may be challenging to achieve strength across all these diverse fields. Additionally, it is sometimes not clear how distinctive the four research areas are within the university as a whole. Are there areas of overlap with other departments at UGOT? During the site visit it became clear that some overlap exists with the Department of Marine Sciences and, to a lesser extent, the Department of Chemistry and Molecular Biology.

Recommendations

- We suggest increased special tenure track for underrepresented sex, but discussion among the four research areas to identify specific “high-impact” areas that could be used to target new staff. Some areas in the evolutionary realm that may not be well represented in the department include ancient DNA, animal phylogenetics and genome evolution.
- We wonder whether a degree of rebranding of the four research areas might help increase the research profile. “Physiology” and “Evolutionary ecology” are both important disciplines, but have these terms been superseded by more recent or perhaps broader terms? As superficial as rebranding can be, it is worth considering whether new names for research groups would help raise profiles.
- Although ‘omics can be criticised as a set of tools rather than an area of research, it may be a useful way to identify new staff, particularly in the areas of environmental science, biodiversity and behaviour. Additionally, ‘omics can help clarify the equipment needs to improve core facilities used by many labs.
- Computational biology is another area that can knit together diverse research areas and create novel synergies.
- Efforts should be made to increase the synergy between BioEnv and the Department of Marine Sciences to strengthen research and teaching. The development

of a shared marine biology programme could be one mechanism.

- Special incentives and staff lines should be created to address the gender balance issue. Aggressive measures and a departmental commitment applied over several years or a decade are the best way to improve the situation (see D4 below).

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The Research Advisory Board, BaBor, appears to be a good bottom-up mechanism for coming up with strategic initiatives intended to strengthen research.
- Plans to improve department leadership includes four measures, which all seem highly relevant and important.
- The reinforcement of staff by the announcement of new lectureships with increased frequency is positive, although effective strategies for dissemination should be defined.
- There is a clear designation of roles within the leadership, and the main areas within BioEnv's mission is covered (e.g. research, education, cooperation etc).

Weaknesses

- There appears to be a problem with fully externally-funded researchers taking substantial responsibility for teaching, even though they have no department-funded research time. It is not clear how the hiring of more lecturers will solve this problem.
- No discussion about how the physical separation of staff at Kristineberg affects leadership. Is there not a risk that they become isolated?
- BioEnv may want to reconsider its management structure once the department moves into the new building in 2023. It may become somewhat top-heavy, which could risk slowing down decision-making and coordination between complimentary areas. The integration and contribution of staff members from different parts of the dispersed BioEnv units may be less necessary in the new building.
- The divergent dimension of the different sub-research areas in BioEnv increases the risk that not all areas and staff in BioEnv have the same influence in decision-making.

Recommendations

- Make sure to follow through on the four steps already identified for improving the department leadership: increasing collaborative activity, improving the collegiate process, increasing the guaranteed research time to 50% FTE, and encouraging participation in UGOT training programmes for future leaders.
- Consider complementing BaBor with dedicated research strategy workshops.

Otherwise, there is a risk that strategic recommendations will be entirely based on bottom-up processes that are inevitably stochastic and influenced by some staff members more than others.

- Simplify the management structure, especially when in the new building, and put more mechanisms in place to stimulate BioEnv cohesion and ensure involvement of all research areas to a similar extent in decision-making.
- Strategic research areas should be clearly defined, as should the hiring strategy and relative weight of research or teaching in the recruitment process (e.g. will recruitment be based on research excellence or teaching). All the research groups have indicated the need for more staff and money for PhDs.

B1.2 Faculty/University level leadership

Strengths

- BioEnv's Assistant HoD is a member of the Faculty Board for research, which provides a good forum for discussing various matters related to academic and research leadership.
- A new dialogue forum with representatives from BioEnv and the faculty was created in 2017 to promote trust and communication.

Weaknesses

- Given the strong conflict between BioEnv and the faculty four years ago over the re-election of the HoD, is a dialogue forum enough to heal wounds? Have any other measures been taken to improve relations between the department and the faculty? Is there a need to establish additional mechanisms to avoid such lack of communication in the future? Management need to give due consideration to democratic or collegial decision-making, and this should be clearly represented in the statutes.
- The small representation of BioEnv on the faculty board, and the vested interests of each of the board members, may reduce the effectiveness of this decision-making body. The panel will raise this aspect with the faculty leadership.

Recommendations

- Consider whether additional measures need to be taken to improve relations and trust between the department and the faculty.
- Establish and implement formal procedures and mechanisms to ensure that majority decisions at the level of departments are respected by faculty- and University Management.
- An ombudsman could be identified at the management level for impartial conflict resolution in the future.
- The aging population of staff at UGOT is both a risk and opportunity for research development. A "think tank" should be established to define the overall research strategy for the faculty/university; it will be important to define the direction of the faculty in general and the departments. A formal and meaningful process of engagement should be established. This is an excellent opportunity to build interdisciplinarity through recruitment.

B2. Recruitment

Strengths

- Strong international presence. For instance, the department hosts 85 international students of 105 in total for the entire faculty. Quite impressive.
- Programme to support visits by potential Marie Skłodowska Curie postdoc candidates to Kristineberg for 2–3 days to plan and write their applications is excellent.
- Formal guidelines will be established to ensure gender balance in recruitment, covering all stages of the process.

Weaknesses

- Advertising internationally could be stronger. There is no discussion in the self-evaluation of start-up packages and other incentives that could attract top candidates from abroad.
- Almost no recruitment recently and shrinking staff since 2013, which is a major risk to research productivity.
- Affirmative hiring actions to address imbalances have not been possible due to the low level of hiring, apart from temporary staff, and the slow and cumbersome hiring process.
- There is a staff structure time bomb and a large “brain drain” will start to occur as 40% of staff are older than 55 and 62.5% of professors are >55 years. This will be a major challenge and may lead to a significant drop in productivity in the next RED evaluation period.
- The medium-term strategy for hiring that considers the research areas and BioEnv strategic needs (teaching versus research) and the role of the relatively newly-formed research centre is unclear.
- Almost all research areas in BioEnv indicated staff should be hired but no clear recommendations or justifications are provided.
- PhD recruitment is low and has dropped since 2013 and there are 60.6% less female PhDs and 48% less male PhDs. The measures proposed by BioEnv to reverse this trend are not convincing. This will have a long-term impact on UGOT’s research standing, reputation and strong interface between research and teaching.

Recommendations

- Consider measures that would increase the attractiveness of BioEnv positions to top candidates from abroad.
- Foresight planning – prepare a strategic document that defines medium- and long-term hiring needs in relation to BioEnv’s strategy and mission, and the role of research centres, so that an effective and coherent hiring strategy can be established. During the site visit, the HoD of BioEnv indicated a planning process had been initiated for future recruitment, which is commendable. Clearly departmental recruitment should be integrated within a clearly established faculty wide strategy. The panel will raise this with the faculty leadership.
- The recruitment process should permit some overlap between new and old staff

to allow knowledge, networks, skills and experience transfer, and to maintain the unique identity of the institution (space constraints need to be considered).

- Hiring for the different research areas should be carefully managed and advance planning is very important. Hiring should be clearly linked to departmental strategy and critical mass building, while contemplating research and teaching needs.
- Management of plans for the structuring and role of staff in teaching and research should be considered, with expectations for each area clearly defined.
- BioEnv and the faculty need to take steps to identify reasons for the significant fall in PhD recruitment and identify measures (financial) to reverse the trend. Aggressive action at the university level and incentives for BioEnv to support more PhDs are required to reverse this worrisome trend. The panel will raise this with the faculty leadership.

B3. Career structure

Strengths

- Excellent programme of annual development talks and the establishment of continuing professional development plans.
- The encouragement and support for teachers in applying for the faculty sabbatical programme is an attractive feature. It appears to work: the department members are highly successful in securing sabbatical grants.
- Plans to improve guaranteed research time to 50% FTE are excellent.

Weaknesses

- Treating all lecturers/professors equally with respect to guaranteed research time – could that not be a problem in retaining the most successful researchers?
- The extent to which BioEnv has autonomy to determine promotion and the possibility of offering “high flyer” recruits a clear and attractive career track is uncertain.
- The autonomy of BioEnv to determine career and promotion of staff relative to other departments in the faculty is unclear (e.g. relative coefficient between research and teaching etc) and no formal process appears to exist for interaction with the faculty and university management in relation to career advancement in BioEnv.

Recommendations

- Consider whether it might be advantageous to allocate more than 40 or 50% FTE research time to the most active and successful researchers.
- Commitment and strategy documents for career development within BioEnv would be beneficial for planning but also for interacting with University Management.
- University Management needs to consider ways to retain top talent if they receive competitive outside offers.

B4. Funding

Strengths

- Excellent track record in recent years in bringing in sizable and prestigious grants.
- Hasselblad prizes to female scientists are fully co-funded by the department, which is a smart way to promote gender balance.
- The department provides several important services that support researchers in bringing in external grants. For instance, the department organises workshops and tutoring ahead of Swedish Research Council (VR) and FORMAS calls. Seed funding is also used in some cases to promote applications. These services are apparently effective, and they also have positive signal value.
- Creation of research centres (some in response to UGOT Challenges) is an excellent way to promote international research.

Weaknesses

- No PhD students unless you have external funding for three years, apparently. Maybe consider fully-funded PhD positions for young faculty members or other special cases? The panel was subsequently informed that new lectureship positions (there will be six in the current year) come with a fully-financed PhD student position. This is a commendable initiative and will help new recruits establish themselves and their research line.
- The department considers hiring someone to assist researchers with large applications, and to communicate funding opportunities. However, would it not be more efficient to use UGOT's Grants and Innovation Office?
- Funding is heterogenous and some groups have a lot more funding than others; this raises issues in relation to the sustainability and contribution of some groups.
- Using successful PIs' time to tutor less successful ones does not seem to be an effective use of their time. More important is to identify why some staff are less successful in obtaining funding (this may be due to a diversity of factors, lack of interest, scientific area etc), and to identify decisive steps or actions PIs can take to resolve the problem.

Recommendations

- Consider fully-funded PhD positions for young faculty members, early-stage women researchers, or other special cases.
- Networking events such as workshops to reach out and engage other scientists in building teams and creating consortiums will be an effective means of applying for EU international projects.
- Use the research centres to leverage integration and collaboration in international and European infrastructures to put them on the "map" and stimulate more projects/collaborations.
- Measuring performance quality metric baseline and targets would be helpful and the basis for planning.
- A definition of research quality in relation to funding requires clear targets and

indices so success can be benchmarked anonymously inside BioEnv but also across the faculty (software or a simple platform could be used).

- Extend the seed funding programme for proof of concept studies.
- Fund international workshops (using internal money or by applying for external funding) to build strategic networks and teams for project development.
- Funding for strategically relevant conferences/meetings to promote BioEnv research/mission. Funding for conferences could be used to reinforce the department's internationalisation strategy and to respond to gender issues, while promoting BioEnv and specific research areas.

B5. Feedback and evaluation

Strengths

- Individual feedback provided during annual developmental talks.

Weaknesses

- Nothing is mentioned in the self-evaluation report about the frequency of evaluation of department activities, such as teaching and supervision, and it is unclear if there is a rigorous program for comparing research quality with peer institutions and departments.
- Annual feedback appears quite infrequent and does not allow for rapid corrective measures. We appreciate that a formal process of annual feedback is important to establish performance-related measures, but more regular feedback can be used to guide and encourage staff.

Recommendations

- Consider a departmental evaluation programme to help with strategic decisions.
- Establish an internal benchmarking system to provide objective metrics for research performance. The role of individual staff in teaching and/or research should be considered. Diversity of staff profiles (teaching, research, outreach etc) should form part of the department strategy and clear goals should be available for benchmarking.
- Feedback with benefits is relevant, in order to award excellence.
- Feedback and evaluation should be bidirectional, BioEnv should define clear measures for dealing with specific needs/demands of individuals.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Outstanding track record. The department hosts staff and scientists that are members of FRAM, SWEMARC and CeCAR, three out of six UGOT Challenges multidisciplinary research centres. Two of these are wholly led by BioEnv researchers (FRAM, SWEMARC).
- Excellent that each research area has resources to support academic interaction, and that the department supports sabbaticals.
- Research centres are driving innovative international MSc courses and are a pole of attraction for young visiting scientists and have been a means to bring in senior scientists as visiting professors and to enhance competence.

Weaknesses

- It seems that BioEnv researchers are less engaged in national collaborations than in UGOT activities and international collaborations. Potential room for improvement?
- Involvement in European/international research infrastructures is less obvious.
- More recent involvement in European projects is medium and should be reinforced.

Recommendations

- Consider measures to improve national collaborations.
- Engage in research infrastructures to extend national and international visibility and to expand networks and influence.
- Increase engagement in training networks (this may be reported in the teaching?) but this is one way of extending influence and also obtaining more PhD students, the low number of which is a problem.
- Establish international workshops through the research centers or units to build cohesion and to engage with other international scientists and build networks.

C1.2 Collaboration with external stakeholders

Strengths

- External collaboration strategy based on a 2016 survey.
- Strong collaborations with a wide range of external stakeholders.
- Successful track record attracting funding for projects involving external stakeholders.

Weaknesses

- Unclear how the results from the 2016 survey were converted into department actions.

- There could be room for more joint-PhD studentships with industry. The two examples that are mentioned do not involve businesses at all.
- The extent of collaborations for technology transfer and training for external stakeholders is unclear.

Recommendations

- Actively explore opportunities for joint-PhD studentships with industry.
- Better follow-up of the 2016 survey in strategic departmental action (at least, it was not described in the self-evaluation).
- Establish departmental strategy in relation to engaging external stakeholders, at what level and in what areas to decide priorities (the use of co-funding would be good leverage).

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- Advisory board for utilisation, communication and outreach under assistant HoD is excellent.
- Utilisation, communication and outreach considered in yearly appraisals and salary talks.
- Integration and support for start-ups in department facilities fosters interaction between academia and the business sectors.

Weaknesses

- It is mentioned that the value of outreach activities as a merit could be strengthened (during recruitment, presumably), but there is no plan for this.
- No specific activities are mentioned that would encourage exchange between BioEnv staff and students on one hand, and the integrated start-ups on the other.
- Communication/collaboration is not awarded in time, despite the growing importance of this activity. The panel will raise this with the faculty leadership. A correction provided by BioEnv feedback to the report was that staff participating in particular outreach activities prioritised by the department are given time for the activities. This is commendable and formal recognition of these actions is important.

Recommendations

- Develop a concrete plan for how outreach activities are to be valued as a merit.
- Consider planning activities that will foster exchange between departmental staff and the start-ups housed in the department buildings/infrastructures.

C2.2 Research relevance and impact on society

Strengths

- Excellent track record of contributions to the science-policy interface.

- Departmental activities are well aligned with UN Sustainable Development Goals.

Weaknesses

- More conscious planning of departmental activities with respect to UN SDGs might be good, as indicated in the departmental self-evaluation, instead of just relying on the natural connection between BioEnv research and teaching and SDGs.
- There are few details on how the department contributes to open knowledge platforms. Unless this is a simple omission, there could be room for improvement in this area.
- Lack of an institutional strategy and budget to cost open access fees is a major drawback (particularly as research agencies expect OA). The panel will raise this with the faculty leadership.

Recommendations

- Develop a plan for BioEnv contributions to open knowledge platforms and establish a faculty-wide dialogue about this and OA issues.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- The emphasis on hands-on practical experience (lab- or fieldwork) in teaching, despite limited resources, appears to be an excellent strategy. But given the expenses, are there student evaluations supporting that students also view it in this way? If so, can these teaching components be organised more efficiently to make the available resources last longer? Or is it possible to find more resources for such activities?
- Two embedded PhD students from the Graduate Research School in Educational Sciences could improve research-teaching linkages. But does the department take advantage of those opportunities?

Weaknesses

- 15–20% minimum teaching recommendation. How is it enforced in practice? How many exceptions are there?
- Room for improvement in the teaching-research linkages on systematics and biodiversity.
- Training through research in an MSc setting is not time- or cost-effective and the dependence on MSc students for research output is worrying due to their level of training, level of expertise, and inexperience. What quality control parameters are in place to validate the robustness of MSc research?
- The contribution of MSc theses to the department's research output, since it is difficult to obtain PhD students, is inefficient because it means progress is interrupted; quality may vary from student to student and year to year. MSc students absorb a lot of time for training and verification of theses etc.

Recommendations

- Establish mechanisms for collecting feedback from students at all levels and base decisions on this feedback.
- In strategic planning of research and teaching, try to more strongly leverage the natural connection between the department's activities and the UN SDGs.
- Establish the route towards funding more PhD students, through incentives and strategic planning with the faculty and university. The panel will raise this with the faculty leadership.

C3.2 Doctoral education

Strengths

- Course credits for research in other labs (although it could be advertised better according to the self-evaluation). To what extent is this opportunity used by students?
- PhD students collaborate in teaching (mainly labs but there is a proposal to involve them in lecturing).
- PhD students are competitive, as indicated by their success in applying for foreign postdocs (covered elsewhere in the self-evaluation).
- Diversity of cutting-edge project areas for PhDs (based on research portfolio of BioEnv) and promotion of independence in the development of research projects (however, hiring through research projects may limit independence).
- High level of satisfaction expressed by the PhD students during the site visit.

Weaknesses

- The plan for improving doctoral education seems reasonable, but are there any surveys or other established mechanisms for collecting feedback from PhD students? Is the department focusing resources on the most important factors?
- The funding situation needs to be improved to increase the number of PhD students over postdocs, but the department is aware of this.
- The level of mobility and internationalisation of PhDs could be reinforced (since it was not strongly evident).
- During the site visit it became clear that more could be done to build collegiality and interactions among the department's PhD students. Furthermore, there was concern from students about the structure and usefulness of some of the obligatory courses offered.

Recommendations

- See recommendations under C3.1, which also apply to doctoral education.
- Greater flexibility in courses providing complementary skills, more tailored to the needs of PhD science students, would be beneficial and should be promoted; engagement in public outreach should be promoted and recognised.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- Yearly work environment survey excellent. But how is it followed up?
- The internal pre-submission procedure seems to be an excellent activity. What do the researchers and reviewers think about it?
- Strong PhD student training programme with rich opportunities for presenting research and getting feedback, and for interacting and learning from other students. Mandatory open introduction seminar, mid-way seminar, and informal training before PhD thesis defence.

Weaknesses

- Each of the four areas has a coordinator funded at 5% FTE. This seems too small a time commitment for such a task.
- Strategies to gather feedback and implement improvements are unclear.
- Mechanism for engagement and interaction between different departmental groups is unclear (e.g. professors and students). Opportunities for active intervention, engagement and leadership of academic culture by younger staff is unclear (e.g. student-organised activities, seminar series, awareness measures in relation to “big issues” etc).

Recommendations

- Consider more in-depth analysis and follow-up of the results from the work environment survey.
- Consider an expansion of the work environment survey to include question on things like the pre-submission procedure and other relevant departmental activities (if such questions are not already included).
- Create leadership opportunities for PhDs, postdocs, or young staff through engagement in specific activities or initiatives e.g. ambassadors for schools, outreach etc.

D2. Publication

D2.1 Publication strategy

Strengths

- Excellent publication output and citation record, and a positive trend in publication rate.
- More than half of the department’s publications are in open access outlets.

Weaknesses

- There is a gender imbalance in publication rates and order of authorship that needs to be addressed.
- There is concern that the plan to follow up bibliometric data for individual researchers during appraisals or salary talks may backfire. Excessive pressure

can also lead to malpractice.

- No OA strategy has been formulated for the department, although members of BioEnv follow the general recommendations of research funding bodies.

Recommendations

- For recommendations regarding gender imbalance, see D4 below.
- Consider whether it is a positive measure to follow up bibliometric data of individual researchers in appraisals and salary talks. Maybe it is better to follow up such statistics at a group level, emphasising that bibliometric data only reflect one perspective on scientific quality and success.
- Consider formulating a departmental strategy for OA publishing.
- Map the interdepartmental collaborations and international collaborations through publication to monitor and obtain metrics for “true interdisciplinarity” and internationalisation of BioEnv publishing.
- To promote OA publishing, allocate a budget to pay fees. Constraints are mentioned in D2.2 of the self-evaluation report, but the panel would like to reinforce the position of BioEnv in relation to budget with this recommendation.
- No mention of altimetric is given. Explore this aspect to determine if social media tools can contribute to disseminating BioEnv’s notable research outputs.

D2.2 Analysis of bibliometric data

Strengths

- Outstanding bibliometric data; the department is one of the top scoring departments in the faculty, and has been for years, despite its recent formation (2012) and restructuring (2015).
- High and rising publication rate with very good performance in relation to equivalent departments of other Swedish Universities.

Weaknesses

- Surprisingly many papers are not published in OA outlets.
- Lack of support for researchers without sufficient external funding to cover OA publication fees in top journals.

Recommendations

- Consider whether it is possible to encourage publication in OA outlets by providing departmental support for covering publication fees. Alternatively, consider measures to encourage use of preprint servers.
- Foresight planning in relation to publication is important, taking into consideration the likely impact of retirement over the next five years, and the start-up of new staff who may take time to settle in and start publishing.
- Mapping of publications across the different groups and age groups will help identify high-performing areas, which may be relevant for strategy development in relation to recruitment and critical mass building.
- Continue to benchmark against external equivalent departments to define ambition for the future.

D3. Facilities and research infrastructure

Strengths

- Appropriate facilities and research infrastructure provided without charging bench fees.
- Some faculty support for key infrastructures, such as the Herbarium and Kristineberg.
- Transferral of the department's infrastructures to a central infrastructure facility in 2023, *Naturvetenskap Life*, is associated with the infrastructures being strengthened considerably. Centralisation in itself could bring considerable benefits, even if it also risks the infrastructures becoming less integrated with department activities.

Weaknesses

- It seems like the department could gain from better use of the national research infrastructure supported by the Swedish Research Council (and Europe), and better integration of its own infrastructure work in national activities.
- To what extent are there external users of BioEnv research infrastructures? The panel does not propose charging fees for external use of the infrastructures, but some monitoring of the extent of external use, and how such use might benefit the department and UGOT as a whole, would be valuable. For instance, the Herbarium presumably has many visitors and must handle many loan requests from external users.
- Some units expect to decrease their allocated space in the *Naturvetenskap Life* building in 2023 due to constraints of rental costs. This may have implications for departmental solidarity and cohesion.

Recommendations

- Consider actions to encourage BioEnv use of national research infrastructure, and integration of BioEnv infrastructure efforts in national and European initiatives.
- UGOT should consider the ways in which it could treat major resources like the Herbarium and Kristineberg (hosted by the Department of Marine Sciences) as university-wide facilities, in order not only to help sustain them and increase their use across the university, but also to leverage the university's visibility. Strategic development of such facilities could be enhanced by also engaging external actors.
- Monitor the external use of BioEnv infrastructure and consider its strategic relevance for BioEnv's infrastructure efforts. A cost-benefit analysis could identify new opportunities, and could also be used to leverage this unique patrimony for promotion of BioEnv.
- Strategic mapping of costs and outputs (e.g. publications, training, projects, collaborations) for each infrastructure would be a means of estimating benefits, as well as the division of floor space among staff and research areas in both the current and new accommodation.
- Foresight planning of BioEnv's move to *Naturvetenskap Life* (2023), with space

planned to host international visitors and to provide good conditions for ERC fellows, may be a further means to build reputation.

- BioEnv needs clarity on: the costs for moving to the new faculty building, deployment of the renting model, and how the relocation of widely-used infrastructures like the Herbarium will be paid for. Moving facilities like the Herbarium and the animal facility is a complicated process, and it is essential that enough planning time and resources are allocated for these relocations.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The pilot study from 2014 analysing gender equality issues is laudable.
- The department has taken note of the RED19 statistics that pinpoint the underrepresentation of women among early-stage researchers.

Weaknesses

- The department is obviously aware of some of the causes of women not being so successful in science, for instance, the underrepresentation of women among early-stage post-PhD researchers. However, there does not appear to be any concrete plans for how these problems will be addressed. The department could also be more active itself in analysing potential gender equality issues. For instance, the pilot study from 2014, which revealed a worrying authorship imbalance between men and women, should be repeated to see whether patterns have changed.
- The lack of hiring opportunities and flexibility is a limiting factor in relation to tackling gender/minority issues.
- More in-depth analysis of the factors that may be contributing to gender differences in publishing (research areas, departmental responsibilities, funding access), may contribute solutions to combat the problem. Feedback from male and female staff in relation to publishing strategy and why they think the differences exist could also be helpful.
- More effort should be made to exploit European infrastructure funding and other funding systems towards increased internationalisation.

Recommendations

- Develop concrete action plans addressing the gender imbalances that have been revealed in recent analyses. Consider implementing a programme where these patterns and others of potential concern are analysed, and changes monitored over time.
- UGOT needs to implement more flexible hiring practices that allow BioEnv greater weight in determining its hires, while maintaining objectivity and lack of bias in hiring.

D4.2 Internationalisation

Strengths

- The department has a strong track record with respect to most aspects of internationalisation in recent years.
- The sabbatical programme is frequently used, which is excellent.
- The support for inviting potential Marie Curie postdoc applicants to the department is excellent.
- Good efforts to recruit PhD staff from outside UGOT to reinforce internationalisation of staff.

Weaknesses

- There is no discussion of potential problems in attracting researchers from abroad. Does the department have any such problems? Do they offer salaries and start-up grants that are sufficiently attractive for top candidates to accept department offers?
- New positions may not be advertised internationally as aggressively as they could be.

Recommendations

- Make efforts in upcoming hires to attract top candidates from abroad. Be proactive in making sure that the department can offer attractive salaries and start-up packages.
- Make sure major hiring outlets, such as *Nature* and *Science* and broadly-accessible online job lists, are used.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- A financial officer appointed to liaise with each researcher seems like an excellent model.
- BioEnv is one of the most active departments in submitting nominations of candidates to the Faculty Board to be considered in national calls for funding of individual scientists (e.g., Wallenberg Foundation programmes), indicating good incentives and support for these types of activities.
- BioEnv has a commendable commitment to the ethical use of animals and has appointed a director to assist and advise in the time-consuming process of obtaining permission.
- There is a commitment by the department to provide technical support to research engineers (although the extent is limited by budget).

Weaknesses

- Current model of support for research engineers (partly by external funds and partly by departmental funds) generates stress and needs overhaul. Apparently, opinion is divided on this within the department, and no clear plans on how the problems will be addressed are presented in the self-evaluation.

Recommendations

- Develop a better model for supporting research engineers, with broad support within the department. Use the self-evaluation and established metrics to identify priorities and strategies for the deployment of research engineers.
- Establish clear guidelines about the role of research engineers, both those hired by BioEnv and those through projects. This process should involve all interested parties to establish a fair and functional approach. In the context of future hiring, research engineers should be considered. The increasing number of MSc instead of PhDs conducting BioEnv research has issues linked to the robustness of results and safety. Clearly the research engineers can have an important role in overcoming these issues.

E2. Faculty and University-wide support

Strengths

- UGOT's Grants and Innovation Office provides good support in putting together proposals for various EU and national calls.
- UGOT's co-financing support model for EU/national grants is essential for the department to participate in such projects.

Weaknesses

- An additional grants specialist at BioEnv could generate redundancy for the Grants and Innovation Office and would use up important resources from other priority actions.
- GGBC has been supported by the faculty with a start-up grant for six years and the aim of the centre becoming independently funded by early 2023. How will GGBC be affected by Antonelli leaving for Kew? Will it still be able to support itself by 2023? There is no discussion of this in the self-evaluation.
- Problems finding enough co-financing for grants that are not covered by the UGOT co-financing model.
- If the transparency of the funding model for the Herbarium and Kristineberg changes, it could put the development plans of BioEnv at risk.

Recommendations

- Consider developing increased communication with the Grants and Innovation Office to make submitting complex grants easier.
- Encourage faculty- and University Management to investigate if it is feasible and justified to have more types of grants covered by the co-financing support model.

- UGOT should evaluate demand and needs for competence-building courses and update its offering in line with the changing dynamics of science and to further stimulate mixing of staff from different departments and faculties.
- Obtain information and establish in collaboration with faculty the cost-benefit of the support provided by the faculty for the Herbarium and Kristineberg; establish medium- and long-term costs and funding needs to establish and model implications for BioEnv of changes in funding in the future. It will be important to establish with faculty the funding model for BioEnv in *Naturvetenskap Life* and how that will impact the current financial model.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The RED10 recommendations at the university level seem only partly relevant to the department. Nevertheless, there have been clear improvements at the department in most areas relevant to the RED10 recommendations. As noted in A1, the formation of the new Department of Biological and Environmental Sciences in 2012 and restructuring in 2015 make it difficult to assess just how relevant the RED10 recommendations are for BioEnv. Nonetheless, since the recommendations were fairly generic, and therefore applicable across any institution, most were relevant aspects for improvement.

It is clear from the department's self-evaluation report that BioEnv has given serious attention to addressing the weaknesses identified by RED10; this is commendable. The current HoD is to be commended for taking on the difficult task of assuming the leadership in the face of an institutional conflict, and for keeping the momentum and contributing to BioEnv's progress towards excellence.

F2. Other matters

The proposal to strengthen traditional collegial processes is interesting and implies that there is a number of ways in which UGOT could improve the functioning of BioEnv by increasing transparency and communication at the university level. Additionally, conversations on how to give BioEnv more autonomy in its recruitment are important. Without additional autonomy it is unclear how BioEnv can address things like the gender imbalance, when recommendations for hiring rest solely with an external committee. Additional ways in which BioEnv could be improved and made more efficient, primarily through actions or adjustments in the modus operandi of UGOT at the level of university administration, are summarised in the concluding recommendations below.

CONCLUDING RECOMMENDATIONS

Overall the panel saw its engagement in RED19 as a means by which they could contribute constructively to strengthening the research quality and performance

of UGOT. Moreover, they considered the RED project commendable and agreed that it showed a serious institutional commitment to quality and excellence in research. The report provided to the panel was comprehensive and complete and the panel commends the Department of Biological and Environmental Sciences on the clear and concise document provided. The schemes and charts were very helpful, and overall it provided helpful insight into the general structure of the department, its management, and the general research lines. The on-site visit was an opportunity for the panel to clarify doubts about aspects related to function, management, academic culture, interactions within the university etc. The panel were extremely satisfied with the site visit and thanks the department for their hospitality and for the open dialogue established with the HoD, Vice HoDs and the various committee and board members, infrastructure staff, and PhD students during the on-site visit.

Meetings were organised in an intense one-and-a-half-day meeting (2–3 April 2019) and covered essentially Research, Education, Communication/Collaboration, Infrastructures and Administration. The meetings were conducted by the panel, who first identified their role and then opened the dialogue in relation to the area of activity under discussion. The questions and doubts raised in the report, and challenges and potential solutions that BioEnv identified, were discussed. The aim of the panel was to identify strengths, challenges and potential solutions. The present executive summary does not exhaustively cover each of the challenges identified by BioEnv or the panel, as this has been outlined in response to each of the report sections; instead, it distils what was seen as critical challenges for the coming years. These challenges need to be addressed first to maintain BioEnv's current strong position and secondly to reinforce and increase their vigour and impact by taking advantage of their competence and the new actions arising from UGOT Challenges and newly-established research structures.

The main challenges were seen by the panel as an opportunity, if the solutions to them are well managed. Benefits for research but also teaching and communication will come from: improving cohesion of the dispersed department; recruiting staff due to the improved economic position of the department and the retirement of senior staff; strategic, university-wide measures to reverse the diminishing numbers of PhD students; autonomy to establish new teaching profiles based on the evolving competence and transdisciplinarity of BioEnv's research base; strategic approaches to improve the scope of funding sources (e.g. through co-funding or capping overheads); developing career tracks for all "players" in the department (e.g. administrators, research engineers); and strategic management of infrastructures and the possibility of staff reinforcement when required (teaching staff, researchers, administrators, engineers etc).

Major recommendations

The panel is aware that several of the recommendations involve not only departmental functions but also ways in which the faculty administration could more profitably interact with BioEnv:

1. Clarity on high-level decision making at the faculty level and supportive interactions with BioEnv:
 - a. Large infrastructure resources, such as the Kristineberg marine station, that serve the UGOT research community but also regional and national interests, should be supported in a way – perhaps in part at the university level – so it reflects the investments and involvement of departmental and other stakeholders, including the university as a whole. Strategic priorities and a vision for the future development of marine support infrastructures need to be defined in collaboration with the Department of Marine Sciences, and also the faculty and University Management.
 - b. The processes for putting new HoDs in place should be transparent and democratic and reflect the knowledge of department staff about departmental needs, while still avoiding bias and nepotism. Existing regulation needs to be reviewed and improved.
 - c. Overload of BioEnv administrative staff (two are currently on sick leave) could be alleviated with a central institutional pool of administrative staff that could fill in for BioEnv staff when necessary.
 - d. Competition among departments for administrative staff should be minimised through a fair and flexible salary and career structures across the university.
2. Sustaining quality by hiring new talent to BioEnv requires administrative flexibility within BioEnv and at the university level:
 - a. The process for hiring new researchers and faculty is too slow and cumbersome.
 - b. Creativity is required in offering retentions to retain top talent.
 - c. Priorities for new hires should not be constrained entirely by teaching needs, especially if everyone in BioEnv contributes to alleviating the teaching load and if quality teaching is seen as an extension of quality research.
 - d. Outreach activities need to be incorporated into position profiles and compensated.
3. UGOT needs to sustain PhD positions centrally as well as offer BioEnv incentives to invest in PhD positions:
 - a. Such positions are challenging to maintain solely on external grants.
 - b. UGOT needs to sustain their commitment to the breadth of academic inquiry, including both basic and applied science.
 - c. If there is a next round of the “UGOT Challenges” programme, UGOT should also consider sustaining core activities within departments.
4. There is a need for a high-level institutional infrastructure strategy:
 - a. The new *Naturvetenskap Life* building is anticipated by many, but the solidarity model to cover rental and to avoid sudden large and destabilising changes in rental needs to be maintained by UGOT.

- b. BioEnv needs clarity on the budget situation and the cost of the move, especially for critical infrastructures like the Herbarium that will require special insurance. This would also be an opportunity to digitalise the collection.
5. Sustaining excellence in BioEnv:
- a. BioEnv should re-think and actively pursue interdisciplinarity and new talents.
 - b. In what ways could the four-research area paradigm be updated to ensure coverage across the spectrum of environmental science?
 - c. Consider ways to identify and recruit new “talents” that will bridge current research strengths. How can the excellence of the UGOT Challenges centres, which have greatly benefited BioEnv, be maintained into the future?
 - d. The Gothenburg Global Biodiversity Centre needs on-site leadership at the professor level for BioEnv to sustain its leadership in biodiversity science.
 - e. BioEnv and the Department of Marine Sciences should think creatively about maintaining excellence in marine biology and attracting student talent with a marine biology programme.

DEPARTMENT OF CHEMISTRY AND MOLECULAR BIOLOGY

334	Introductory Remarks
335	Section A – Background and Research Standing
335	A1. Background
337	A2. Research standing
339	Section B – Leadership
339	B1. Leadership
343	B2. Recruitment
344	B3. Career structure
345	B4. Funding
346	B5. Feedback and evaluation
347	Section C – Complete Academic Environment
347	C1. Collaboration
349	C2. Relevance and impact on society
350	C3. Research-teaching linkages
352	Section D – Academic Culture
352	D1. Academic culture
353	D2. Publication
354	D3. Facilities and research infrastructure
355	D4. Transverse perspectives
357	Section E – Support
357	E1. Internal research support
357	E2. Faculty and University-wide support
358	Section F – Other Matters
358	F1. RED10 evaluation
358	F2. Other matters
358	Concluding Recommendations

INTRODUCTORY REMARKS

The members of the panel individually read and reflected on the material sent to us from the departmental leadership. We had three Skype/telephone meetings in advance of the site visit, in addition to email contact when needed. During the first of these meetings it became clear that more information was needed, which we requested from the departmental leadership (who responded rapidly and positively upon our request). This included additional data on publication metrics, research/admin/teaching load, number of PhD students and grants for each PI, a list of the courses taught at the department, and data on the number of master's projects for 2018.

In advance of the site visit, we filled in parts of the report, but also, and perhaps more importantly, we agreed to a list of questions under each report item to be addressed during the site visit. We also requested an introductory meeting with the leadership on Monday 1st April, prior to the official start of the programme, so as to be better prepared for the meeting. The leadership was very well prepared and this discussion provided important and valuable input for the further work of the panel. In particular, we were alerted to the issues relating to the new building, Naturvetenskap Life, which is expected to house the whole department. Problems associated with the construction and move to the building are very important to the department and became a theme in several of the subsequent meetings with members of staff.

During the actual site visit we met with a wide and representative range of staff and students, the large majority of whom were well prepared and eager to contribute. We confronted each group with a range of questions, primarily to understand and evaluate the work environment and conditions for research and teaching as well as collaboration, support and research infrastructures. In each meeting, we also made a point of asking participants to come forward with grievances that they might have, and to air possible improvements to their working conditions.

The site visit programme was comprised as follows and reflects the actual time spent with the different groups:

Time	Monday April 1	Time	Tuesday April 2	Time	Wednesday April 3
Site	Chemistry, Johanneberg		Lundberg Lab		Chemistry, Johanneberg
09.00	Leadership group	09.00	Div. heads + Infrastructure I	9.00	Tech/Admin staff
12.00	(end)		(BSB, CMB, NMR, Screening)	10.00	Postdocs/ Researchers
		10.30	Div. heads + Infrastructure II	11.00	Leadership follow-up
			(Atm, AIP, OrgMed, Imaging, MS)	12.20	LUNCH

Time	Monday April 1	Time	Tuesday April 2	Time	Wednesday April 3
		12.00	LUNCH	13.00	"Femman"
		13.00	Young Faculty		Panel meeting
		14.00	ERC recipients		
		15.00	PhD students		
		16.00	Senior Faculty	16.00	Leadership feedback
		17.30	(end)	18.00	(end)

We would like to express our respect for the way in which the department leadership handled this process, and for their willingness in positively responding to our request for information, which helped us in our work both before and during the site visit. The meetings were arranged in such a way that there was essentially no time wasted and the programme was well organised without any delays.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Department of Chemistry and Molecular Biology (CMB) has a relatively short history; it was formed in 2012 via a merger of the former departments of Chemistry and Cell and Molecular Biology. The initiative of the merger was taken by the predecessors to CMB, which is considered a positive start since the merger was thus not forced on the former departments. The Marine Chemistry part of CMB left in 2016 to be integrated into the new Department of Marine Sciences. More recently, in 2018 the Swedish NMR Centre became part of CMB.

In RED10 the Department of Cell and Molecular Biology was reviewed by Panel 7 (Biology), and Chemistry was reviewed together with Earth Sciences by Panel 8.

CMB is organised into five divisions: Analytical, Inorganic, and Physical Chemistry; Atmospheric Science; Biochemistry and Structural Biology in which the NMR-centre forms an independent unit; Molecular and Cell Biology; Organic and Medicinal Chemistry.

The structuring into divisions to some extent remedies CMB's divergence, but even within divisions the range of topics covered can be very wide, in particular in analytical, inorganic, and physical chemistry. It appears that measures have been taken to structure the department in order to assist departmental cohesion and communication, and to provide a structure for efficient information flow, peer support and joint decision-making. However, it was not clear from the written material how successful and widespread the measures are, and how willing PIs are

to embrace them. However, the leadership of CMB illustrated the direction taken by the department, indicating a convergence towards life science as the common denominator.

The five divisions differ significantly in their number of associated scientific staff. At the time of the review the academic staff of CMB comprise 23 full professors, 16 associate professors and four assistant professors. The size is comparable to that found at departments of chemistry or molecular biology at similar institutions, but what is particular noteworthy is the span of research areas covered by CMB, which range from fundamental chemistry to molecular and cell biology. This is illustrated by the names of the five divisions within CMB, which differ significantly in their number of associated academic staff (shown in parenthesis): Analytical, Inorganic and Physical Chemistry (six), Atmospheric Chemistry (five), Biochemistry and Structural Biology (13), Cell and Molecular Biology (13), Organic and Medicinal Chemistry (10).

In addition, CMB has 82 PhD students (including eight industrial PhD students), 80 postdoctoral researchers and researchers (essentially extended postdocs beyond two years; about half on scholarships and half as employees), 20 research engineers, four technical staff and 13 administrative staff, all in all 242 persons.

The Head of Department (HoD) is the formal leader of CMB. He is supported by a management team comprised of the deputy HoD, the two vice-chairs for education and research and the Head of Administration.

Each of the five divisions has an appointed “spokesperson”. Together they form a “strategy group” that serves a consultative role for the management of CMB. The Department Board also serves a consultative role. Taken together, the leadership structure and the relative role of the different groupings did not seem to be very clear to the panel. This concern was also voiced during the site visit by several members of staff representing different employee groups.

To remedy this, the panel proposes that the leadership consider changing the composition of the Department Board, in order to reach a good representativity of different groups of staff and students, and, perhaps most importantly, to include the divisions’ spokespersons from the “strategy group”, and to put strategic questions high on the agenda. Formalising the buy-in from stakeholders would likely increase the clarity of the leadership structure, as well as the inclusiveness and attractiveness of taking part in both day-to-day and important, long-term issues at the department. Meetings should be regular (e.g. monthly) and transparent, with an open agenda and minutes.

The divisions of CMB are located at two different locations in Gothenburg. The geographical distance is so large that it is not possible to have the natural daily professional and social interactions required for CMB to function as an entity. As collaboration is a must for CMB to function in an optimal way, this results in much

more additional work and significant managerial challenges for the leadership of the department.

Research infrastructures are essential for the research activities of CMB, and each division possesses advanced instrumentation enabling its research. A unique mass spectrometry infrastructure is located in the Division of Analytical, Inorganic and Physical Chemistry, which includes the only NanoSIMS in Scandinavia and a 3D SIMS imager. The Division of Atmospheric Chemistry is leading in developing mass spectrometry instrumentation for field work. The availability of the national Swedish NMR Centre is of particular benefit to the Division of Biochemistry and Structural Biology and the Division of Organic and Medicinal Chemistry. It is clear to the panel that “state-of-the-art” instrumentation is available to support research in the department. Staff are allocated for the operation of the NMR Centre and NanoSIMS, whereas the operation of the other infrastructures seems to be mainly in the hands of PhD students and postdocs, which cannot be considered as the most efficient use of the instruments or of the temporary staff.

Appointment of technical staff who ensure a more efficient use of the instruments should be considered when CMB move into the new building. However, the prioritisation of such staff vs scientific staff is always a difficult balance and the actual choices must be transparent.

A2. Research standing

In addition to the material received before the site visit, the additional material provided by the management upon request from the panel provided valuable information, which was useful in the assessment of the research standing of CMB.

In their self-evaluation CMB expresses their unified department vision as *“the mission to conduct research and train undergraduate and postgraduate students within the disciplines of chemistry and of cell and molecular biology. The department creates and disseminates new knowledge in the molecular sciences for the benefit of the scientific community, students, the public and the environment.”*

The priorities of the departments are:

- To develop and maintain nationally leading profiles in cutting-edge research that furthers their strengths in core areas of chemistry, molecular biology and the interplay between fundamental chemistry and molecular life science;
- This includes the discovery and invention of novel and direct experimental and analytical methods;
- The applications range from critical societal issues like the environment, antibiotic resistance, cancer, the brain, or frontiers such as the chemistry of outer space;
- A deeper understanding of the chemistry of the cell, including chemical and biochemical reactions, molecular and genetic mechanisms, and the influence of environmental factors or chemical substances on the cell.

The mission and priority settings of CMB, as expressed in the self-evaluation, clearly show the direction taken by the department and its leadership. However, the vision is a bit vague and does not communicate an ambitious vision of the department. In the discussions with CMB leadership during the site visit, it was obvious that they were aware of the importance of having a useful vision, which expresses a high ambition, and that the vision and the underlying goals and strategies should be useful tools and represent clearly defined goals for the daily work and development of the department. The leadership admitted that this has “historically” not been something that has been discussed, but is now being worked on. The panel proposes that the department express an ambition to continue and steadily increase the quality of education and research. However, for the vision, goals and strategies to become useful, the development and processing of such central tools must be transparent and inclusive. Furthermore, the panel recommends identifying qualitative measures as well as quantifiable parameters of success, in order to follow-up progress.

Research conducted at CMB is truly interdisciplinary, and advanced experimental and theoretical methods are used in fundamental studies. Another fine characteristic of the most of research at CMB is that it has a strong societal relevance, e.g. the results are of direct relevance to environmental science and healthcare.

Research at CMB is supported by “state-of-the-art” infrastructures. They range from access to supercomputing facilities in Sweden, to hosting the Swedish NMR Centre, and part of NBIS, the general Swedish National SciLifeLab Infrastructure. Recently CMB became host of the therapeutics part of the interdisciplinary Centre for Antibiotic Resistance (CARE). The department is home to a large-scale cell-based phenotypic screening infrastructure; a chemical imaging infrastructure; an infrastructure for protein production, purification, characterisation and crystallisation; and a chemical ionization mass spectrometry for atmospheric science. It is clear that the research infrastructure necessary for conducting high-level research at the department is available.

Considering the size of CMB, its scientific staff have an impressive number of collaborations with researchers from leading international research institutions, which illustrates that they are very attractive research collaborators. Another sign of the attractiveness of CMB as a leading research laboratory became apparent to the panel when they met representatives from the group of postdocs/young researchers. It is a very international group that applied to carry out research at CMB due to the excellent research opportunities.

The panel is impressed by the very high standing of research at CMB, of which several of the research foci are internationally leading. The high quality of the research at CMB is not only well documented by the number of publications and H-indexes of the staff but also by the number of prestigious grants held by the staff (presently five ERC grants and two Wallenberg scholar/fellow awards). Here it is worth emphasising that literally all lecturers and professors at CMB have obtained

international/national project grants to support their research, so it obvious that the strength of research at CMB cannot alone only be attributed to the handful of outstanding researchers. The amount of external funding that supported research at CMB in 2018 was SEK 97 million.

The high standing of CMB's research is clearly visible from an international perspective within the field: the 2017 Shanghai ranking under Life Science ranks University of Gothenburg (UGOT) at 40 for biological science. In terms of research volume, chemistry is much more diverse and comprises a much smaller part of the research of CMB, which makes it more difficult to assess. It is therefore understandable that chemistry at UGOT comes out with a lower ranking than biology.

The five divisions presented realistic plans for their development in the coming 5–10 years. The aim is to maintain the diversity and interdisciplinarity of the science and further develop cross-divisional interactions. The panel warmly supports these plans for future development, which completely rely on uniting the divisions of the department in a common building, “*Naturvetenskap Life*”.

The present problems encountered with the plans/construction of this building are addressed under B1.2 Faculty/University level leadership. The problems associated with the planning, construction and the handling of the transition phase from the present locations to the new building are very serious and need urgent handling by University Management.

Observations:

- The research at CMB is of very high standard ranging from exceptionally good to very good.
- The department has access to state-of-the-art research infrastructure and contributes to the development of new infrastructure.
- Postdocs and PhD students appear highly qualified and motivated.
- The plans to develop cross-divisional research collaborations are in jeopardy due to problems with the new building.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

The present Head of Department, Markus Tamas, took over the leadership from Göran Hilmersson on 1 July, 2018. Before this he was part of the leadership team, which is considered to have contributed to a smooth transition. The formal department leadership consists of the Head of Department (HoD), who after consultation with the rest of the management team (deputy HoD, Vice Chairs for research and education, respectively, and the Head of Administration), is formally responsible for the daily management, and for defining the strategy, of the department.

The department is divided into divisions, which are primarily defined by their research focuses, but are probably also, to some extent, historically founded. Each division has an appointed “spokesperson”. The management team consults with the five spokespersons, who act as a consultative group. There is no clear delegation of responsibility to the spokespersons, and individual PIs may also make suggestions and requests directly to the management team and the HoD. In the leadership structure there is also a Department Board, which is consulted on all issues regarding recruitment and other issues of relevance to the department. However, the HoD has the final authority for all aspects of the management of the department.

The present management group has not been in charge very long and is still in the process of developing structures and lines of communication. The leadership appears to have a good understanding of the importance of communication, accountability and transparency which we consider essential for the trust of all members of the department. The trust in the leadership indeed seems good, which is very important for the continued work on developing the still new department. The leadership is aware of the importance of having a useful and ambitious vision and the underlying goals. The panel emphasised the usefulness of setting ambitious but realistic targets so that progress can be followed in a quantitative manner (see also the panel’s discussion and proposals under A1. and A2.).

Finally, the leadership is heavily burdened by the chaos surrounding the new life science building, an issue to be elaborated below.

Strengths

- The department leadership appears to be respected, with a strong internal cohesion and with a sense of common purpose. In addition, we detected no significant misgivings about the leadership among the members of the department and there was a broadly shared sense of openness, trust and respect. There appears to be a willingness to hear different opinions prior to making significant decisions at the management level, and transparency and accountability are highly regarded qualities.

Weaknesses

- With so much formal authority delegated to the HoD it is extremely important that decisions be argued and communicated frequently and clearly. The panel has noted that there is sometimes a lack of clear lines of communication between members of the department and the leadership.
- This means that, although the leadership does listen to spokespersons, the final outcome of these discussions and the reasons for decisions are not always communicated back to the stakeholders. Although we do not know how widespread this grievance is, it potentially generates the feeling of a lack of transparency that degrades the authority of the spokesperson role. Although this may not be a significant issue now, it is one that deserves attention.
- Another problem that we see is the workload that is placed on the shoulders of

the HoD. We have mentioned, and will elaborate further below, the issues of the new Life Science building (*Naturvetenskap Life*). Another drain on resources is the requirement of the HoD to perform “*Medarbetarsamtal*” with potentially all employees of the department, which is an overwhelming task, and which we consider in many cases could be better performed at the level of divisions or at a lower level of the organisation. Another arrangement via a clear delegation from the HoD downwards in the organisation is suggested.

- We also see it as important that the HoD maintain the ability to conduct research, perhaps not at the highest level, but at a level which does not preclude a further career in science after a term of HoD.

Recommendations

- We recommend that more formal authority be given to spokespersons and that their role within the lines of communication and decision-making be clarified. We suggest that they be given a “Head of Division” status with more authority and with budget command within certain limits. Thus, Division Heads should have the delegated authority to conduct “*Medarbetarsamtal*”. Along these lines Heads of Division should also be able to act, within certain limits, on behalf of the leadership and have a limited budget to implement decisions. However, the panel still sees it as important that the department be kept as a unified entity, and not become fragmented into separate and autonomous entities. What we propose has the aim not only of facilitating the daily operative work of the department, but also of increasing participation, sharing the workload (including strategic planning) and the communication flow, and thereby taking advantage of the collegial knowledge, experiences and engagement for the best development and running of CMB (See A1. and A2. for suggestions of a changed leadership structure).
- If the Heads of Division are engaged more in the leadership structure, they could also be formally tasked with coordinating strategy at the division level, and aid in defining goals and visions at the division level, but as part of the shared vision and strategy of the department. This will not only improve communication and accountability, but also free up time for the leadership.
- It should be noted that a change in structure will not necessarily be accepted by all PIs, and the implementation of the model should be discussed and argued in some detail, so as to ensure employee buy-in. Also Heads of Division should be those who share the vision of the importance of collaboration and integration.
- In defining a common vision for the department and the divisions, it is important to set ambitious but realistic and, not least, measurable goals to which practical achievements can be held.

B1.2 Faculty/University level leadership

Strengths

Research is supported by the Faculty of Science and by the central management through different mechanisms:

- Co-financing prestigious grants (e.g. EU grants), which is considered to have been very valuable.
- Co-financing infrastructure (at the level of the faculty, UGOT centrally and at the national level).
- The decision to construct the “*Naturvetenskap Life*” building.
- The establishment of the Wallenberg Centre for Molecular and Translational Medicine.
- The Wallenberg Conference Centre.
- The reduction of administrative costs (overhead).
- The development of the Grants and Innovation Office; the support offered has been very valuable to obtaining grants.
- Access to relevant publications, library/electronic publications.

Weaknesses

- We strongly feel that there is a lack of leadership from the university management regarding issues that traverse departments. This is particularly pertinent in regards to the new *Naturvetenskap Life* building. The construction period requires relocation of groups to interim locations, which are not available, and the assignment of lab and office space has not been finalised. As this involves groups from several departments this constitutes an extremely complicated puzzle. The negotiation of these complicated issues surrounding space and relocations are left to departments, which generates tension and is potentially poisoning the future relationships in the new building. Further, it generates anxiety and frustration among the employees and undermines the trust of the leadership.
- The Swedish NMR Centre, which is a Swedish national facility and part of the general Swedish SciLifeLab infrastructure, forms a very active part of the department and serves researchers nationally and internationally (85 projects Jan-Aug 2018). Unfortunately, the responsibility has been moved from UGOT’s upper management levels to the department level. Since both funding and a working system, in terms of internal and external accessibility, fee-system etc., are important areas of development in the long-term perspective, and since these are also areas discussed at the national level and require the involvement of central management, it is worrying that the responsibility has been moved to the lowest management level of the university. The department may well encounter difficulties handling more serious questions, should they arise.
- Easy access to journals and relevant scientific literature is essential for conducting research of the highest level. The panel was very surprised to learn that access to journals highly relevant to research at CMB was made impossible when Chalmers University of Technology cancelled subscriptions to relevant journals, which had previously been accessible through the collaborations with chemistry at Chalmers.

Recommendations

- The university leadership must take action to install professional assistance and leadership concerning the planning and construction of “*Naturvetenskap*

Life". Both the complex handling of the transition phase, during which research groups have to temporarily move to different locations, as well as the whole complex and detailed planning of the new building, must be professionally handled. If this is not handled in an efficient and trustworthy way, the research as well as the education of the affected departments will suffer significantly. Projects will lose momentum, opportunities for collaboration will be missed, and trust in the management at all levels will be damaged to a degree that employees will be inclined to prioritise self-interest over common good. The result may be devastating for the future collaborations and success of the department.

- The reassignment of responsibility for the Swedish NMR Centre from upper management to the departmental level should be seriously reconsidered. Since the national infrastructure is part of a competitive national system, the host university must be a highly-active participant in the national discussion, in order to not lose out on opportunities for national resources, whether for funding or for other aspects of development. This is not easy, or perhaps even possible, to handle at the department level.
- To remedy the journal access problem, UGOT should either subscribe to the journals or initiate a process in which access to all journals relevant for Swedish Science becomes the responsibility of the Swedish Royal Library, who should be able to follow a model used in Denmark for subscription to scientific journals.

B2. Recruitment

CMB leadership considers the recruitment of employees to the department as critical for the long-term development of the department. The characteristics of the recruitment and employment system as it looks today are described as follows:

- Recruitments are made through open calls and advertised internationally. Consequently, there is a focus on external recruitments.
- There are big differences in conditions offered to those employed as Member Faculty (lecturer and professors) compared to those employed as Researchers.
- There are also big differences in conditions offered to those employed as Assistant Professors with tenure track (young researchers coming with prestigious grants like KAW Academy Fellows, ERC Starting Grant, SSF Future Research Leader Grant), who have, over time, the possibility of applying for promotion to Lecturer, compared to those employed as just Assistant Professor (still coming with an external grant from, for example, the Swedish Research Council, VR).
- New professor appointments are decided by the Vice-Chancellor, while appointments to associate professor (*lektor*) and assistant professor with tenure track (*biträdande lektor*) are decided by the faculty. Other appointments are decided by the Head of Department.
- The department has a gender imbalance, which must be corrected. A gender balance is considered by the leadership to be crucial for the development of the department because of its importance for health, environment, motivation and success of the department, both in terms of research and in education. Useful tools may be to examine whether the possibility of promoting a lecturer to professor would in certain circumstances be beneficial, or to identify, approach,

and support female researchers and appoint young female researchers as Assistant Professors with tenure track (ensure young researchers to get 80% time for research and provide support for at least one PhD student), and be proactive in mentoring and not over-burdening young (female) scientists. This also holds true for established female scientists, since women are easily over-burdened with all kinds of administrative work, participation in committees of all kind, etc.

Strengths

- The department has set up an open and transparent recruitment process, which has resulted in successful recruitments.
- The department seems to handle the described system weaknesses (see below) with clarity and transparency, which is important in a complex system like this and where resource limitations (low share of basic funding “*basanslag*”) puts constraints on the system.

Weaknesses

- It should be pointed out that the weaknesses that follow inequalities as described above when comparing positions at the same level of competence, e.g. assistant professors with (*biträdande lektor*) and without tenure track (*forskarassistent*) or lecturers and professors as compared to researchers, is nothing special for this department or for the University of Gothenburg, but for academia in the whole of Sweden.
- The department does not have room for top candidates who do not come with their own grants (ERC or others) of the more prestigious kind.

Recommendations

- Continue to develop and handle the employment system with clarity and transparency (see above – Strengths and Weaknesses).
- Even though it is, of course, a strength to be so attractive as a department and research environment that you are able to recruit top candidates who bring their own prestigious grants, CMB may consider transferring some financial support (basic resources) from the faculty to facilitate the recruitment of other top candidates, for example international recruitments. However, this is a tricky question, since established researchers also need stability and long-term conditions within the more short-termed Swedish system. We would like to warn against relying solely on external judgment or funding opportunities for recruitment (ERC, KAW; research councils etc.), as this poses the risk of undermining CMB strategies when it comes to something so strategically important as recruiting your own staff. Decisions of whether or not to support an application may in many cases be the most important “strategic” decision.

B3. Career structure

In Sweden and at the University of Gothenburg there are different career paths in place where a tenure-like system co-exists with non-tenured researcher positions. The departments differ in how they distribute staff between these systems. It should, however, be clarified what is meant by a “tenure-like” position. What is

different and/or missing for developing this into an internationally-recognised and attractive tenure-track-system, and what are the hindrances to adopting a “true” tenure-track system, as it is recognised internationally? These are important questions that should be solved in order to be able to offer attractive and competitive positions to young talented candidates.

Strengths

- Support to researchers (also mentoring to young researchers) in their application for Docentship.
- Female lecturers are encouraged to apply for promotion to professor (one was accepted in 2018).
- CMB intends to assist tenure-track Assistant Professors with full or partial funding of a PhD student.
- The faculty provides a sabbatical programme (scarcely used by CMB researchers).
- Supportive carrier routines and clear schemes are considered, by CMB, to be in place.
- A formal mentorship system for all young faculty is being considered by CMB.

Weaknesses

- Severe drawbacks for staff and students due to the construction of *Naturvetenskap Life*. PhD students and Assistant Professors are especially vulnerable (in need of extended time and contracts).
- Lecturers promoted to Professors are highly dependent on external grants, which may especially disfavour women. CMB has discussed perhaps “loosening the criteria” for promotion to professor in order to support gender balance.

Recommendations

- The panel warmly recommends CMB to continue the good work along the ideas presented to the panel. It is, however, important to identify clear goals, and use them to work out strategies. This type of strategic work should involve the staff of the department – for example, via a “new” Department Board (See A1. and A2. for suggested changes to the leadership structure) – since it is extremely important for the success of CMB that the background of decisions/choices be clear to everyone.
- Also, look into more possibilities for strengthening the opportunities/environment for PhD students. Consider, for example, research schools together with others, locally or nationally.

B4. Funding

The current (2018) funding for research is about SEK 210 million in total, whereas the external budget is SEK 97m and the internal budget (*basanslag*) is SEK 72m.

Strengths

According to the self-evaluation, different types of financial support are available at CMB, which the panel considers positive:

- A transparent resource allocation model is in place (the 60/40/20 model).
- CMB co-finances project grants; especially as concerns prestigious grants (covering overhead costs etc.)
- Research support for each PI of SEK 50,000/year.
- CMB co-finances PhD students on a competitive basis, in order to enable recruitment of 10-20 PhD students per year.
- CMB co-finances newly purchased furniture and computers.
- CMB co-finances dissertation costs.
- CMB encourages participation in networks, stimulating mobility.
- CMB encourages participation in MSCA-ITN by co-funding.

Weaknesses

- The low amount of support for Assistant Professors. However, CMB is considering a new programme for this.

Recommendations

- The transparent resource allocation model in place is simple and easy to understand, which is positive. However, any type of model for resource allocation must be continuously evaluated, and the incentives that they provide should be in line with overall strategic goals.
- The existing co-financing prestigious grants may be a successful strategy, but may also have negative effects (see the discussion above under B2. Recruitment).
- The direction taken by CMB to co-finance PhDs is probably necessary and beneficial for the development of CMB, in addition to providing long-term societal positive effects.
- The panel has found that the leadership of CMB is characterised by sound reasoning. Our recommendation is to continue along the lines that have already been identified as important.
- One very important aspect of strategy is the funding and handling of the ever-increasing costs of heavy infrastructure. We recommend a deep analysis and long-term plan for infrastructure (including total running costs) as part of the whole system, balanced against other concerns like recruitment and technical assistance.

B5. Feedback and evaluation

The CMB leadership is planning, over the course of 2019, to follow-up on the still newly merged department, through discussions with division heads and all faculty members. Development talks (“*medarbetarsamtal*”) with all staff are already in place (including updating of CVs), which have the aim of monitoring progress (grants, teaching overload etc.). It is important that this process be taken seriously, but it is also likely that it needs to be significantly delegated (e.g. to Heads of Division). All PhD students have an individual study plan (ISP).

Strengths

- It seems to the panel that the department has created not only an open atmosphere for discussing, for example, strategies, but also a system of open com-

munication on different issues with staff. We therefore experience a great will of the leadership to succeed at unifying the merged department and to create a generous atmosphere.

Weaknesses

- The workload placed on the HoD by individual meetings (“*medarbetarsamtal*”) is not optimal from a time-efficiency point of view. This is often seen as a problem at Swedish universities, although there are different possibilities for handling the situation (see also B1.1 Department leadership).

Recommendations

- Preserve the open and inclusive atmosphere at the department and look into possibilities for increasing the efficiency and outcome of different initiatives via changes in the organisation and delegated leadership for specific purposes (see also A1. and A2. for suggestions for a changed leadership structure and B1.1 Department leadership).

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- There appears to be an excellent culture of collaboration within divisions, in particular, the larger ones (Biochemistry and Structural Biology, Cell and Molecular Biology, Organic and Medicinal Chemistry). There are also extensive outgoing collaborative interactions (49 industrial/institute partners; 76 with other Swedish universities; 51 at UGOT; and more than 120 international university collaborations) and the majority of the PIs (and publications) are involved in some sort of collaboration. In several sections, there is an extensive use of common equipment and several young faculty have commented on the high level of mentoring and support that they have enjoyed from senior PIs.
- We note that the self-evaluation includes the following statement:
“We plan to work to ensure an organisation that facilitates cross-divisional interactions. Divisions are practical for everyday matters; however, there is a need for an additional “parallel structure” centred more around strategic research initiatives or research subjects for further development and quality enhancement. This could be of particular importance since we are now planning for the move to a new building (Naturvetenskap Life) in 2022–2023, and we should come together to discuss potential synergies between the different groups, including how we can arrange efficient utilisation of lab space and equipment.”

We can only commend this, although this may be best handled within the divisions or by creating conditions for cross-fertilisation. It is a difficult balance: It appears that department-wide seminars have been dropped due to low attendance. This is not entirely surprising, considering the scientific diversity of the department. Nevertheless, there appears to be a good crop of local seminar series.

Weaknesses

- The potential for cross-disciplinary collaboration between divisions is not explored to any significant degree, and is way below its potential. This problem is also widely acknowledged among the members of the faculty.

Recommendations

- We recommend involving postdocs and PhD students more heavily in cross-divisional activities in the form of poster days and seminar series arranged and targeted specifically at this group.
- In regards to scientific communication at the department level, a format that could be considered is ‘bi-weekly lunch seminars’ presented by PIs to peers, with the specific aim of giving an enlightening presentation of ongoing research that is broadly accessible. Understanding what your colleague works on is the first prerequisite for collaboration.
- Department-wide “retreats” are also a good forum for interaction and for sowing seeds of collaboration. In general, bringing together very diverse areas often yields the most interesting collaborations. The trick is to facilitate a meaningful discussion.
- On the local level, sharing lab space and equipment is also a very productive and constructive way of promoting collaboration. If students and postdocs share the same facilities this is a great driving force for the creation of new ideas and best practices. This is of course difficult to enforce top-down, but can be integrated into the structuring of labs, and incentives could possibly be arranged by the leadership.

C1.2 Collaboration with external stakeholders

Strengths

- CMB is located close to Chalmers University of Technology (Chalmers), and there have been close interactions between CMB and departments for chemistry and molecular biology at Chalmers. It appears that since the plans to merge chemistry from the two universities were abandoned, the interaction with Chalmers has been less close.
- Gothenburg is a city that houses world-leading industries like the pharmaceutical company Astra Zeneca and a large hospital; their activities are closely related to the research of CMB. This has resulted in numerous and obviously fruitful collaborations between CMB and local industries and healthcare. The self-evaluation report provides good documentation of the interactions between CMB researchers and the surrounding society.

- CMB has collaborations with more than 49 industrial partners, 76 partners from other Swedish universities, 51 within UGOT and more than 120 collaborations with scientists from all over the world. These collaborations play an important role for funding and bringing a strong societal relevance to the research at CMB.

Weaknesses

- This diverse range of collaborations that each have their own focus makes it very difficult to develop a coherent research programme for CMB.

Recommendations

- Though the number of external collaborations is high, it may still be worth the management monitoring and having an overview of them, in order to be able to develop a departmental strategy for external collaborations.

C2. Relevance and impact on society

C2.1 Management and support

The many interactions with local companies and other Swedish research institutes that are of great societal value also have obvious advantages for CMB researchers in terms of industry-financed PhD students and subsequent good job opportunities for MSc and PhD students who graduate from CMB.

Strengths

- Seen from a societal perspective, CMB is doing an impressive and valuable job through its interactions with industry and other national and international universities.
- It is obvious from the self-evaluation report that these collaborations are very fruitful and lead to new products, patents and start-up companies. All in all, they provide a very valuable input to the research activities of CMB, which can be very stimulating for research education.

Weaknesses

- There is no overall strategy for the participation of CMB researchers in external collaborations. This can lead to problems in priority-setting, particularly when it comes to the use of CMB resources such as research infrastructures.

Recommendations

- The self-evaluation report shows that the CMB management is aware of the different issues associated with the very extensive external collaborations, and have outlined a process that can lead to an overall strategy for the handling of external collaborations, which is fully supported by the panel.

C2.2 Research relevance and impact on society

The publication record of CMB clearly demonstrates the strong standing of the department in curiosity-driven basic research.

It is therefore very impressive to see how much of this research has led to results that are of direct societal impact. An impressive long list of recent accomplishments, in which the research at CMB has had direct societal impact, is presented in the report.

Strengths

- CMB possesses a unique academic culture, which is able to identify societal relevance of the research results.

Recommendations

- The management should continue strengthening the promotion of CMB research that is of societal relevance.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Teaching in the department contributes to three BSc programmes in: Chemistry, Pharmacy, and Molecular Biology. In addition, five MSc/ international master's programmes are supported in: Chemistry, Organic and Medicinal Chemistry, Molecular Biology, Genomics and Systems Biology, and Neuro-Biochemistry, the last of which is currently in development.

Reflecting the broad nature of the science covered by the department, courses range from inorganic chemistry to cell biology and immunology.

With a total teaching load of a little less than 700 ECTS, the teaching burden on the department does not seem excessive for a total of around 40 PIs. Teaching is, however, not evenly distributed, but according to "activity level". This means that courses change teacher more often than is rational and are not developed by the experience gained over a number of years. Furthermore, PIs who have difficulties attracting funding may have even less time to merit themselves research-wise. Also, chemistry seems to have a significantly higher teaching burden than molecular biology.

Strengths

- The department offers a wide range of courses, however, there is an overweighing of chemistry-related courses compared to molecular-biology related courses, in particular when viewed in relation to the relative number of PIs within the two areas. It is therefore valuable that staff from all divisions contribute to the teaching in chemistry.

Weaknesses

- The problem of relying too heavily on PhD students to teach lab courses is addressed below. This is not only a problem for them but also for the undergraduates who are on the receiving end.

Recommendations

- We recommend that more of the basic chemistry teaching be taken up by members of the department who do not have their main research focus within chemistry.

C3.2 Doctoral education

Strengths

- The department has about 80 PhD students, on average nearly two per faculty, which is a very respectable number. They appear to be able to attract good students, although we have not been able to formally assess this.

Weaknesses

- The majority of practical courses at the BSc level are taught by PhD students, who are not sufficiently prepared for this task. This represents a very serious problem, both for the PhD student as well as the course participants. We were met with comments by PhD students to the effect that “We are handed a copy of the lab manual and quickly instructed by a former “teacher” (older PhD student) on the course”. Or: “Equipment is introduced by ‘here is the ON button and this is the manual’, meaning that I only have a shallow idea what is going on and cannot answer questions from the class”. Or: “I cannot go to the toilet or drink a glass of water for the duration of the exercise, because there are 20 first-year students in my chemistry lab”.
- This constitutes both a safety issue and a pedagogic issue, and results in poor-quality teaching. And this is not the fault of the PhD student teacher. There is a mandatory pedagogical course at the faculty level, but this is not targeted at practical courses and has little or no practical value.
- Also, concerning supervision of individual projects in the lab (e.g. master’s projects), a need was expressed for an introduction to what was expected and how best to carry out this supervision.
- PhD students are often victims of stress and the problems highlighted here may be significant contributing factors. It is neither in the interest of the students nor the supervisors (nor indeed the department) to maintain this state of affairs.
- Another issue is that, due to the large number of foreign students, Swedish-speaking students tend to be “overburdened” with first-year courses. This is due to the wish to maintain Swedish as a teaching language, in particular for early courses and the BSc in Pharmacology.

Recommendations

- There is an urgent need for improving the conditions for the teaching of practical courses and improving the PhD students’ teaching experience. We suggest the following measures:
 1. Supplement or replace the current faculty-based pedagogical course with one that addresses the real needs relevant for practical courses and for project guidance.

2. Ensure proper introduction to the specific issues of the courses in question.
3. Make sure that there are always at least two teachers present most of the time on practical courses.
4. As many foreign PhD students may have fewer teaching assignments, it should be possible to duplicate the teaching by locals on first-year courses.
5. The presence of a PI with in-depth knowledge for a Q&A session for, say, half an hour every course-day could increase the quality of teaching and could reduce the stress-level for the PhD student teacher.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

CMB nourishes its academic culture through a number of annual events (internal meetings, joint seminars), its website, and the inclusion of research ethics in compulsory training courses (provided by the Faculty of Science) for PhD students. One of the aims of these activities is to introduce the young(er) researchers at CMB to its academic culture.

The panel had the opportunity to discuss this approach during two meetings, where they met with the PhD students and postdocs, respectively. It became clear from these meetings that all initiatives for developing a joint academic culture are severely suffering from the location of CMB at two different sites. For the PhD students, the meeting with the panel was the first time they had met with PhD students from the other site!

CMB plans to continue focusing on research related to life science and societal issues (environment and energy). However, the site visit revealed that the development of a common academic culture will face almost insurmountable challenges as long as CMB is split between two different locations.

Potential scientific misconduct is reported either via the Faculty of Science or directly to the Vice-Chancellor, whereafter matters are forwarded to the Council for investigation of scientific misconduct for processing. The Vice-Chancellor has the final decision on issues related to scientific misconduct.

Strengths

- All age groups of CMB staff appear engaged in developing a joint academic culture of the department.

Weaknesses

- The physical location of the department at two campuses so far apart makes daily interactions impossible.

Recommendations

- On the short term, engage young scientists (PhD students, postdocs) from both campuses in the development of the academic culture; e.g. through joint lunch seminars, social events etc.
- With help from University Management, address the problems regarding the new joint home for both parts of CMB.

D2. Publication

D2.1 Publication strategy

Strengths

- CMB has a good publication rate and, according to the bibliometrics, the quality is high. CMB often highlights papers in high-impact journals on its website. All publications are now published with open access either directly or after a short delay.
- Seminars on scientific writing (mainly targeting PhD students and junior researchers) are regularly given by the faculty and the university's Grants and Innovation Office.

Weaknesses

- There is an awareness at the department that researchers in weak local environments are in a weak position, and the strategy is to channel these into becoming strong research environments. This will be facilitated by the move to the same building, *Naturvetenskap Life*.

Recommendations

- The panel feels confident with the publication strategy and related areas at the department and by its leadership.

D2.2 Analysis of bibliometric data

When comparing publication metrics within the broad fields of chemistry and molecular biology with other Swedish and Nordic universities, CMB is ranked pretty high (average number of citations per paper, MNCS), second only to the University of Copenhagen in 2016, and on place four out of seven as concerns PPTop 10%. The feeling is that CMB is positively progressing as a result of a positive change to its organisation and economic movements. In addition, with several ERC and KAW in place, CMB is predicting an upward trajectory in output quality.

The department provided the panel with bibliometric data which is the basis for the evaluation below.

Strengths

We are impressed by the generally high bibliometric indices for members of the department.

Central bibliometric data are as follows:

Average PhD age (Years passed since PhD award)	21
Average number of publications	76
Average number of citations	3 600
Average H-index	27
Average Citations/paper	45
Average HI-index/PhD age	1.4

D3. Facilities and research infrastructure

CMB is in a very favourable situation when it comes to research infrastructure. Scientific excellence is the only criterion for access to the leading X-ray infrastructures, and due to their high scientific stature, researchers at CMB have been able to perform experiments at leading international research facilities such as Free Electron Lasers.

CMB is heavily engaged in the Swedish national research infrastructures, as the host of the national Swedish NMR Centre (SNC) and the bioinformatics hub of the Swedish SciLifeLab, to mention a couple of examples. CMB scientists benefit from participation in several international initiatives like EATRIS and national initiatives like ACTIS.

The department hosts, together with Chalmers, world-leading chemical imaging infrastructure (CII) that can be used in a wide range of chemistry projects. It is open for external users, and attracts users from industry, and Swedish and European universities.

The large-scale cell-based phenotypic screening is another example of a powerful platform at CMB that has been build up over the past 15 years and is used in a wide range of biological experiments.

The high-resolution time of flight chemical ionisation mass spectrometer (HR-ToF-CIMS) is used extensively for field experiments in atmospheric chemistry. It has a very large, international user group in addition to the division of atmospheric chemistry.

Strengths

- It is possible for CMB researchers to employ the best, in terms of capabilities and most advanced, research infrastructures for their research. The suite of research infrastructures constitutes a firm basis for CMB's excellent research performance.

Weaknesses

- CMB is responsible for the operation of the national Swedish NMR Centre (SNC), which puts a heavy load on the department. The responsibility for operating SNC as a national centre is of a complexity level, both financially and

operationally, that is too great for a university department.

- The department is responsible for a wide range of highly-specialised research infrastructures that have special demands with respect to operation, maintenance and renewal.
- There is a shortage of technical staff for the operation of the department's research infrastructures.

Recommendations

- The responsibility of the SNC should be detached from CMB and moved to the Vice-Chancellor level.
- There are two obvious challenges in the future with respect to the present research infrastructures that come under the responsibility of CMB: aging equipment that needs renewal, and the upcoming move to the new building.
- The management of CMB should start developing a strategy for its available research infrastructure, addressing the appointment of technical staff and a financial plan for infrastructure renewal, complemented by a plan for the relocation of infrastructure to the new building. This plan should be worked out in collaboration with the person at the central management level who is responsible for the planning and handling of the move to the new building.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

The gender imbalance has been discussed above in connection to several different matters.

In the self-evaluation the following figures are given: among professors, lecturers and assistant professors (with tenure track) 13%, 40%, and 50% are women, respectively, which illustrates a large gender imbalance at the professor level.

University of Gothenburg policy is that 40% of all new professors must be women. CMB participates in (but is not at the forefront of) work based on UGOT's central goals as set out in the document '*Integration of Equality*' (JiGU). CMB intends to initiate a discussion with the Faculty of Science about reviewing the guidelines for promotion to professor, with the aim of improving the system for highly-qualified women scientists.

Strengths

- An improved gender balance among senior faculty is considered critical for the health, environment, motivation and success of education and research at the department. This illustrates to the panel that the leadership of CMB is fully aware of the imbalance and committed to working for a better gender balance within the department, which is certainly not only a strength but also a necessity.

Weaknesses

- The department currently lacks a clear strategy for gender equality and equal opportunity, which is seen by CMB as undermining the department's credibility as an organisation.

Recommendations

- Several initiatives have been discussed in the self-evaluation and during the site visit that have the aim of getting closer to a gender balance. It is of utmost importance that the goals and strategies for improving the gender balance be accepted and truly believed in by all members of staff – its success is dependent on inclusion and successful communication. Good progression is not achieved if these types of challenges are handled in isolation. Thus, even if a special work-group is formed, as planned for this purpose, the work on gender equality and equal opportunities must be addressed in all activities of the department.

D4.2 Internationalisation

Both the scientific staff and scientific atmosphere of CMB are truly international. Several of CMB's internationally-leading scientists carry a non-Swedish passport and informed the panel of their very positive experiences in building up a research group and become integrated in the Swedish research and educational system. The same positive picture was apparent when meeting with young scientists. CMB is also very successful at attracting highly-motivated and competent young researchers from all over the world. 40% of the research staff and 65% of postdocs obtained their PhD outside Sweden. The high scientific standing of CMB (see A2.) is reflected in its numerous international collaborations.

Strengths

- The past and present recruitment strategy of CMB, namely that positions are announced in international competition, has been successful in forming a department with a strong international profile and research standing.

Weaknesses

- Swedish is the official language at UGOT and a great effort is required from international staff to acquire the in-depth knowledge of Swedish necessary to deal with university matters. This also limits the optimal use of the expertise of international staff in teaching, when undergraduate courses are taught in Swedish. It is noted that only few undergraduate students make use of the opportunities to spend time at another research laboratory, and that few members of staff apply to the sabbatical programme.

Recommendations

- To fully benefit from the competences of the international staff, efforts could be made to have more official information in English. The number of courses taught in English should be increased, this would also have the positive effect of attracting more international students.

- Efforts should be made towards a better exploitation of the many opportunities for participation in European programmes, e.g. the Erasmus programme for students, the EMBO, Marie Curie fellowships.

SECTION E – SUPPORT

E1. Internal research support

Strengths and weaknesses

During the site visit, it became obvious to the panel that the administrative and technical support at CMB is highly competent and much appreciated. The support is personalised and the personnel are flexible. However, in numbers we are talking about very few people, and the support is thereby vulnerable. Consequently, back-up is very limited if persons are not in place for one or other reason. This also means that the management of advanced infrastructure is to a large degree dependent on PhD students, which is not optimal in terms of continuity and deep knowledge about the machines, systems etc. This is in a short-term perspective a cheap way of handling the research infrastructure, unfortunately one can easily predict the opposite in a long-term perspective. Unfortunately, this system is not unique to CMB or the University of Gothenburg, but is a well-known weakness of the sector in Sweden.

Recommendations

The department may very well now be able to make use of its larger size compared to before the merger. The size may of course be even more beneficial when the department moves to the new building, *Naturvetenskap Life*. The larger size of the department results in larger economic “muscles”, such that resources may be pooled both in terms of financial resources and in terms of people. We therefore recommend that the department analyse different possibilities for employing more technical-administrative personnel, while also examining possibilities where different competences overlap to a larger degree, therefore enabling staff to cover each other’s duties when necessary.

E2. Faculty and University-wide support

Strengths

The assistance received from the upper levels of the university are the following, as listed in the self-evaluation:

- The Grants and Innovation Office (FIK) for high-impact grants.
- FIK may also assist in the commercialisation of findings.
- The Faculty of Science supports the sabbatical programme, funding of infrastructure, and handling of smaller stipends.
- The university’s Welcome Services for visiting staff and PhD students.
- The university provides Swedish language courses.

This support is considered by CMB to be of very high quality and useful.

Weaknesses

- However, a broader support function is desired as concerns grant applications.
- The most severe weakness concerns the planning and transition during the construction of the new building, *Naturvetenskap Life*. However, this has been discussed under e.g. B1.2 Faculty/University level leadership.

Recommendations

- We recommend that the CMB leadership bring up serious matters, together with what can be improved in terms of support, with both the faculty leadership and University Management (the Vice-Chancellor team and the administrative management).

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Since RED10, the organisation changed and the new department of CMB was inaugurated in 2012. In general terms one may conclude that the department has developed very well since its inauguration, although there are several areas that require further development as described in the recommendation from the panel.

F2. Other matters

The panel has not separately addressed this question.

CONCLUDING RECOMMENDATIONS

The concluding recommendations, highlighted below, are those we consider most urgent. However, several other important issues are discussed in the report.

The Panel's first two recommendations are directed solely to the Vice-Chancellor and central management:

1. The most urgent recommendation concerns to new Life Science Building (*Naturvetenskap Life*). The university leadership must take action to install professional assistance and leadership as concerns the planning and building of *Naturvetenskap Life*. Both the complex handling of the transition phase, during which research groups have to temporarily move to different locations, as well as the complex and detailed planning of the new building, must be professionally handled. If this is not handled in an efficient and trustworthy way, the research as well as the education of the affected departments will suffer significantly. Projects will lose momentum, opportunities for collaborations will be missed, and trust in the management at all levels will be damaged to such a degree that employees will be inclined to prioritise self-interest over

common good. The result may be devastating for the future collaboration and success of the department.

2. The reassignment of responsibility for the Swedish NMR Centre from upper management to the departmental level must be reconsidered. Since the national infrastructure is part of a competitive national system, the host university must be a highly-active participant in the national discussion, in order to not lose out on opportunities for national resources, whether for funding or for other aspects of development. This is extremely difficult to handle at the department level.

The following recommendations concern the department and its leadership:

1. The panel proposes that the leadership consider changing the composition of the Department Board, in order to ensure good representation of different groups of staff and students, to put strategic questions high on the agenda, and, perhaps most importantly, to include the divisions' spokespersons from the "strategy group". It is the panel's opinion that strengthening the role of the divisions should be accompanied by changing the role of "spokesperson" to one of "Head of Division". Defining this role would streamline the organisation, generate more transparency, and relieve the Head of Department of much of the everyday decision-making. It is, however, still important that the department be kept as a unified entity, and not become fragmented into separate and autonomous entities. What we propose has the aim not only to facilitate the daily operative work of the department, but also to increase participation, to share the work (including strategic planning) and the communication flow, and thereby to take advantage of knowledge-sharing, experience, and engagement of the employees.
2. The panel recommends that CMB create a vision that expresses a high ambition, and in which the underlying goals and strategies represent clearly-defined tools for the daily work and development of the department. However, for the vision, goals and strategies to become useful, these tools must be transparent and inclusive. Furthermore, the panel recommends identifying *qualitative measures* as well as *quantifiable parameters of success* to monitor progress.
3. It is of the utmost importance that the goals and strategies towards improving gender balance be accepted and truly believed in by all members of staff – success is dependent on inclusion and successful communication. Thus, even if, as planned, a special work-group is formed for this purpose, the work on gender equality and equal opportunities must be taken into account in all activities of the department.
4. There is an urgent need to improve the conditions for the PhD students' teaching of practical courses and to improve their teaching experience. These concerns are of security, pedagogical, and quality reasons:

- Supplement or replace the current faculty-based pedagogical course with one that addresses the real needs relevant for practical courses and for project guidance.
- Ensure proper introduction to the specific issues of the courses in question.
- Ensure that there are always at least two teachers present most of the time on practical courses.
- As many foreign PhD students may have fewer teaching assignments, it should be possible to duplicate the teaching by locals on first-year courses.
- The presence of a PI with in-depth knowledge for a Q&A session lasting, say, half an hour every course-day, could increase the quality of teaching and reduce the stress-level of PhD student teachers.

DEPARTMENT OF CONSERVATION

362	Introductory Remarks
362	Section A – Background and Research Standing
362	A1. Background
363	A2. Research standing
365	Section B – Leadership
365	B1. Leadership
366	B2. Recruitment
367	B3. Career structure
368	B4. Funding
369	B5. Feedback and evaluation
370	Section C – Complete Academic Environment
370	C1. Collaboration
371	C2. Relevance and impact on society
371	C3. Research-teaching linkages
373	Section D – Academic Culture
373	D1. Academic culture
374	D2. Publication
375	D3. Facilities and research infrastructure
375	D4. Transverse perspectives
376	Section E – Support
376	E1. Internal research support
377	E2. Faculty and University-wide support
377	Section F – Other Matters
377	F1. RED10 evaluation
378	F2. Other matters
378	Concluding Recommendations

INTRODUCTORY REMARKS

The aim of this evaluation is to assist the development of the research and research environment of the Department of Conservation. The panel consists of Laurajane Smith, Nel Janssens and Mattias Kärrholm (chair), and the work of the panel was conducted during January to April 2019. First, members of the panel went through the evaluation material individually, writing down a draft with preliminary thoughts, questions and conclusions based on the instructions and the readings of the documents. These drafts were then circulated in the group after February 28, in order to check and discuss thoughts, inconsistencies, etc. After that, the chair put the material together in order to sketch out a preliminary full report, as well as questions for the April site visit at the department. These documents were then sent out for another round of comments in the group around mid-March. In the first week of April, the expert panel met in Gothenburg and had interviews and meetings with representatives from the department over the 2nd and 3rd of April. After these interviews the final report was finished and submitted by the expert panel group.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department seems to have a logical and coherent structure. The management group has recently been partly reorganised with some new additions, such as the Research Advisory Board and the two colleges. Also, the department leadership is relatively new. On a number of occasions in the self-evaluation report, it is mentioned that some issues will be addressed by the new leadership in the near future. Therefore, it is probably too early to evaluate this management structure. The recent introduction of supervisors and research colleges, as well as the higher seminars, do however, seem to be promising additions and important for future work.

Even though the organisation is new, we would like to make a few suggestions and comments. Although there were, no doubt, good reasons for having these new structures, there is always a risk of formalising too much. This could be good to keep in mind as the department follows-up the effects of the reorganisation.

One concern for the Research Advisory Board is that it only seems to have one PhD student representative. This seems too few – especially considering the breadth and type of research that is done. It is often better for student representation not to rest on one student's shoulders. Increased representation could improve the level of student support in what can be an unequal environment, while helping to build collegiality between staff and students, and within the student body.

The CCHS and CL platforms – although they extend beyond the department's organisation – are convincing in their set-up, and create a good research dynamic

that is quite easy to grasp for an outsider. They have a ‘strong research environment’ quality (and the fact that they are inter-faculty, inter-departmental and inter-university is of importance). An important question here is to what degree the Department of Conservation plays an active role in the overall platform, and how this role will develop over time.

A2. Research standing

The department has three research clusters – Critical Heritage Studies (CHS), Craft Science (CS) and Science and Conservation (S&C) – and its research spans from practical management issues, to theoretical and critical aspects of the conservation and heritage field. This span, and its attempt to stay true to the notion of *‘kulturvård’*, gives the research an interesting and distinguished profile. However, specific strategies will probably be required to maintain this broad range, particularly since it not only involves a range of research topics, but also a range of research paradigms, from more traditional research to practice-based and artistic research (and their respective research outputs), while also involving the research methods of the humanities, social sciences and natural sciences.

Two of the clusters seem to be doing well in terms of outreach and strength. The recent work around Critical Heritage Studies with UCL and with the Craft Laboratory seems very convincing and strong. A question for future strategic work can be how these two clusters (CHS and CS) can draw from each other without losing their autonomy. There is an ongoing collaboration through one VR-project, but can more collaborations be developed? Such collaboration could be of importance for strengthening the CS cluster, but also as a way to vitalise and broaden the CHS cluster. The CS cluster might also need to strengthen its relation to other fields of research involved with practice (or other ‘making disciplines’). Could there, for example, be benefits to developing craft research as a stronger part of the artistic research field, including different takes on ‘research by design’?

There still seems to be a struggle with practice-based aspects and how to academically validate them. However, there are strong international practice-based communities among which the department could find allies and exchange experience. Here, it could also be of importance to strengthen strategies and forms around what may be called ‘non-traditional research outputs’ (NTROs). This includes works of craft, restorations, conservation work, exhibitions, art works, films and so forth. One would expect CS to be producing these – but these are not at all mentioned in the report.

The third cluster, S&C, is still in need of further development. There is a clearly expressed will to enhance it, but how this will be done concretely, and why this is an important lacuna in the current research should perhaps be more clearly articulated. In the self-evaluation, increased collaboration with the faculty is mentioned as the most crucial issue for this development. Although we agree that the development of methods and collaborations with other disciplines within the natural sciences are important, we think that strengthened collaborations

at the national and international level, where similar themes are handled, might be just as important. Both CHS and CS could perhaps also expand their work on visualisation and imaging using more scientific methods. Are there advantages to establishing deeper collaborations with the Department of Conservation at Gotland? Or with other organisations that the faculty already supports, like Max IV?

External funding seems to have increased four times since 2006 which is quite an accomplishment. Internal funding has also grown, but to a somewhat lesser degree, which means that the dependence on external funding has increased. This has been a general trend in Swedish universities in the last 10 years. The ratio between internal funding and external funding at the department is now about 0.75 to 1. Funding for research and education seems to be well balanced with a relationship close to 50–50. There is, however, still good potential for increased external funding, but internal funding should not lag behind too much.

The department's research is quite impressive in terms of its profile/scope, and funding is certainly increasing in a very promising way, but the output and the amount of researchers/research time seems to be lagging behind. The large increase in research funding has not resulted in an equivalent increase in research positions (6%), i.e. staff with research qualifications. Instead the number of technical staff and administration staff has for some reason increased a lot (71%). Administration costs thus seem to be increasing too much. Research funding needs to be adequately followed by an increased research output (see more below). In the self-evaluation, the department also notes that there is not enough administrative support (despite an increase in administration staff), which demands further investigation.

The self-evaluation, perhaps naturally, focused on a description of current research, but a more strategic research agenda also needs to be formulated. The formation of two seemingly strong research clusters seems like a very good result of strategic work, and in order to take this further, it seems important to use existing infrastructure around organisation and research, and to work actively with medium- and long-term goals.

Finally, a new Marie Curie ITN project is coming up (which already seems to be the third). If this becomes an important part of doctoral education it might be good to develop a strategic vision behind these ITN investments with regards to research training.

To sum up part A, here are a few points and recommendations:

- There is a new and apparently well-functioning organisation in place. However, it is important that this organisation be closely followed-up in the coming years. Is there, for example, a redundancy in having one doctoral advisory board for examiners and one supervisors' college for supervisors?
- There seems to be a lack of medium-term and long-term strategies. Use existing infrastructure to formulate more detailed goals here. This would hopefully also prove that the new organisation is meaningful.

- The research profile and its ambitious span gives an interesting and distinguishing profile that captures the width of kulturvård as a subject. The outspoken inter- and transdisciplinary character of the research is also a possible ‘selling point’ in today’s research world, but it needs strategic work and strong collaborations to keep up.
- Increase collaborations between the research clusters within the department.
- Increase national and international collaborations within the science and conservation cluster.
- Investigate possibilities of increasing the percentage of persons or FTEs conducting research at the department (to better respond to the increase in research funding, and to increase research output).
- Increase student representation on each board to two rather than one student.
- Develop a strategy for ‘non-traditional research outputs’ (NTROs). These are potentially quite important for a subject such as *kulturvård*, and need to be recognised as such a by the department (as well as by the faculty and the university).

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- There is a good structure with boards, colleges and seminars that ensure both the communication and broader influence of researchers at the department.
- There seems to be a good culture, promoting both individual initiatives and group initiatives in research.
- There is a willingness to reorganise.
- There are initiatives for academisation and bringing research into new fields (for example fields formerly only covered by teaching at the department).

Weaknesses

- There might be a risk of an overly complicated organisational structure, since there are a lot of different groups in relation to the department’s size. This might, in the worst case, fracture strategic processes rather than enable them. Is there a need for the doctoral education advisory board?
- The organisational structure is new, which might be both a strength and a weakness.
- Student representation seems low.

Recommendations

- The acceptance for individual initiatives needs to be combined with strategies for research collaborations in order to ensure that research groups do not isolate, but that they can take advantage of each other, and help each other.
- An environment where research collaborations can be established more

naturally, such as the higher seminar, grant writing workshops, etc., might be of importance to invest in.

- The infrastructure for more strategic work seems to be in place, and this work is important to focus on over the coming years.
- Work with transparency, both when it comes to decision-making (where and by whom), and how resources are distributed in the department.
- Our advice is also, as mentioned above, to increase student representation from one student to two on boards and management groups.

B1.2 Faculty/University level leadership

Strengths

- The faculty's sabbatical programme seems to create good opportunities for individual researchers.
- There have been several investments in this relatively young department over the years.
- The platforms provide important support.

Weaknesses

- As external research funding increases, does research become driven by short-term projects rather than by basic funding and long-term investments?
- Are there too much top-down programmes for funding at the university? Is there money located centrally for strategic (short-term) uses that could be delegated to the department as base funding and give better opportunities for long-term planning?
- The faculty seems to base its internal funding on historical factors and Web of Science, which seems quite problematic (as it, for example, hampers new development and leaves out NTROs and important publications in Swedish).

Recommendations

- The department should involve itself in discussions with the faculty and university regarding the development and maintenance of high-quality research environments, including: structures for long-term research planning, the procurement of basic research infrastructure, and funding that is more resilient over time.
- Discuss internal funding uses with the faculty. Since the Department of Conservation might have more complex and pluralistic ways of disseminating research (which should be honoured), this strength might actually turn out to be a disadvantage when it comes to internal funding (at least according to the system described in the faculty's self-evaluation).

B2. Recruitment

Strengths

- There are open and well-advertised announcements of positions secured by the faculty's Appointment Board.

- Department researchers seem to be of a diverse and international background.
- A new senior researcher with international qualifications has been recruited.
- There is an awareness that recruitment is an important issue and the new leadership will address this in 2019.

Weaknesses

- Recruitment has mostly been influenced by teaching needs rather than research (although this is changing).
- There seems to be a relatively low ratio of research positions, given the large increase of research funding over the last few years.
- The recruitment process seems to have been difficult – p.13 “*After a period when several teachers have left the department (retirement etc.)*”. Have the reasons for this been investigated?
- There is still no long-term systematic overview, analysis and plan for recruitment in place. How is, for example, gender balance handled during recruitment?

Recommendations

- The possibility of recruiting new good researchers (who of course also can teach) needs to be investigated.
- Keep up the work on internationalisation of research and increasing research output through strategic recruitments.
- It could also be important to develop a living strategic document for the department leadership that looks at research issues, gender issues and teaching needs together, and does this in relation to staff, recruitment, changes in funding, and retirements.

B3. Career structure

Strengths

- The creation of an academic culture through colleges and seminars is very important.
- Faculty sabbatical programmes seem like a very good idea.
- The idea of initiating co-publications between trained researchers and teachers in craft programmes seems promising.
- Efforts have been made to support female staff in career development.

Weaknesses

- Nothing is mentioned about the postdoc level. What are the career opportunities for younger researchers? This is important for all research clusters, but might also be an issue that especially needs attention when it comes to more practice-based researchers.
- There seems to be some problems with how the relation between research and practice is handled in academic careers. The self-evaluation mentions the strategy of initiating more joint research and co-publications between trained researchers and teachers in craft programmes, but is this enough? Do the teachers get research time? How is this administrated and followed up?

Recommendations

- Make the seminar series relevant to all and involve all the clusters.
- Make sure that the craft of research is dealt with in some seminars.
- Secure career possibilities at all stages: here it seems as if you really need to look more carefully at the career opportunities for younger researchers (again).
- An active and structured mentoring programme (as suggested in the self-evaluation, but not yet developed) may be useful (perhaps especially for young researchers).
- Could one increase the research time in positions, or make the system of internal research funding more transparent?

B4. Funding

Strengths

- External funding has increased a lot, as has internal funding (although somewhat less). Although two external funding bodies account for almost half of the funding, the funding is spread over several funding agencies which seems like a good strategy.
- The demand on all staff to apply for external funding also seems like a necessary strategy (as applying for external funding has increasingly become an inherent part of being a researcher).
- The platforms give a solid base for international funding applications.
- There is Marie Curie ITN funding.
- There is also funding from non-academic partners, and small grants are not neglected, but deemed important.

Weaknesses

- European funding (except Marie Curie ITN) and funding from the Swedish Research Council for Sustainable Development (Formas) seems low. Given that sustainability questions are strongly related to *kulturvård* (in the self-evaluation it is, for example, stated that “*kulturvård is the art to preserve, develop in a sustainable way*”), it seems that funding from Formas could potentially be increased.
- There is an uneven distribution of funds among researchers.
- Is there enough internal funding (leverage funding)?

Recommendations

- Develop a clear strategy for the distribution of internal funding. This could secure strategic collaborations, as well as a certain rhythm for PhD- students and postdocs, and a certain transparency for staff (which can also affect career choices). If there is an uneven distribution of funding between researchers (which is not strange as such) the reasons for this need to be transparent.
- Again, mentoring of junior staff by senior staff can help here too – whereby junior staff in related research areas become part of research projects directed by established researchers (although, one should of course be aware that such a system also has the possibility of being abused by older researchers sitting back

and letting the younger ones do the work). Basically, encouraging collaborations helps more equitable distributions of funds, where there are researchers in similar or complementary areas.

- Develop a written policy on co-funding. PhD students, in particular, may require co-funding (in the current Swedish system of external funding).
- As national and international groups as well as application opportunities related to science and material studies continue to grow, this could potentially be a good moment to strengthen the science and conservation cluster.
- The work with collaborative doctoral students seems good. Are there possibilities to work in a similar way with collaborator postdocs? To pay for a postdoc and one or two years of research by a fully educated researcher (rather than four years of someone training to be researcher), might perhaps be of interest to some funders.

B5. Feedback and evaluation

Strengths

- The work with colleges and higher seminars has started and is working and (will have to) play a role in collegiate feedback.
- There is awareness that the basis for success and a good work environment is a sound culture and collegiate approach, and that this is of equal importance to formalised leadership feedback and evaluation.

Weaknesses

- Not much feedback on research activities, publications, etc. for individual researchers or research groups.
- In the self-evaluation, the department describes a lack of transparency and broader dialogue (p.22), as well as the difficulties of assessing results.

Recommendations

- Some form of follow-up on publications and applications would be good. This should not only be done at an individual level (in the obligatory development plans discussed with the employer), but also on a more strategic level, in seminars, etc.
- The research board and the research college might need to follow up the numbers and categories of publications, applications, etc., to track longer trends, pinpoint good funding and publication opportunities, to make sure that NTRO's are validated, etc.
- It is important that assessments be done in a way that encourages research activities also in the long term. Do not use quantitative assessments only (as it might risk replacing real goals with pseudo-goals – one could perhaps argue that the faculty's Web of Science system for funding might also incur this risk). Here, it might be especially important to find ways and forms of assessing non-traditional forms of research that have utility for local communities and heritage organisations.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- There are a lot of interesting and strong collaborations both nationally and internationally, including, the platforms, the Marie Curie ITN funding, and networks and co-authored output.

Weaknesses

- Research collaborations within the faculty seem weak.
- Collaborations around science and conservation with national and international partners might be improved.

Recommendations

- There are some formats for faculty cooperation, both within the university and with Faculties of Science at other universities (see the faculty-level self-evaluation). Perhaps this could be used more strategically by the department?
- Increase collaborations, nationally and internationally, with partners interested in the science and conservation cluster. For example, there are national and European investments and start-up projects related to new facilities such as Max IV and ESS. A new theme at LINX (Lund Institute of Advanced Neutron and X-Ray Science), “*Imaging Geology, Archaeology and Culture Heritage studies in a new light*”, was launched in 2019 to attract national and international researchers to these new facilities (but there are of course also other opportunities).

C1.2 Collaboration with external stakeholders

Strengths

- There are a lot of interesting and strong collaborations, both nationally and internationally. The collaborations include strategies for long-term engagements and formal agreements, especially in connection to the Craft Laboratory.
- Good record of attracting funding from external stakeholders.
- There are cooperative or enterprise/industrial PhD students.
- There are open courses and scholarships for practitioners.

Weaknesses

- Collaborations with external stakeholders outside of CL are not described much, which makes them hard to evaluate.

Recommendations

- Continue the good work. The proposed work with adjunct positions seems fruitful.

- Could cooperation around postdocs with external stakeholders be initiated?
- Are there any potential conflicts of interest with external stakeholders, and how is this handled?

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- There seems to be good support for the practical application of research-based knowledge (both in the short- and long-term), including the Heritage Academy.

Weaknesses

- The new organisational structure of the department might need to be followed up concerning the issue of societal collaboration.

Recommendations

- Continue the good work. Clarify where the (strategic) responsibility for communication and relationship with society and external stakeholders sits within the organisation.

C2.2 Research relevance and impact on society

Strengths

- The research conducted has a high relevance for society, and societal outreach is also very good.
- There is a wide scope of research at the department (from critical inquiry to more instrumental or practical research).
- There are a lot of experiences of inter- and transdisciplinary collaborations.

Weaknesses

- The relation between ongoing/planned research and global sustainability challenges could be further investigated.
- UN goals not yet taken into full consideration.

Recommendations

- Continue the work that has already started with the UN goals, including disciplinary as well as inter- and transdisciplinary collaborations on sustainability.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Teachers are encouraged to write research applications, and students are encouraged to work in ongoing research projects.

Weaknesses

- There is a gap between research and teaching in the craft discipline.

Recommendations

- Could courses where collaborations (for example through a dual course leadership) between teachers with more practical skills and teachers with research competence be increased?
- Could the role of artistic research, which is a growing field, as related to crafts and practical skills, be strengthened through courses and/or research projects?

C3.2 Doctoral education

Strengths

- Doctoral students are well integrated with researchers and teachers. There seems to be a good number of collaborative, co-funded PhD students.
- New courses installed.
- Marie Curie ITN.

Weaknesses

- There is an uneven distribution of doctoral students among the department's research clusters.
- At the moment, research education is not really validated as a potential driving force of the research environment?
- It seems as if the 'potential' use of PhD teaching (20% per year) might at times be too high; PhD students currently have quite a lot of teaching responsibility.

Recommendations

- There seems to be a problem in achieving an even flow of PhDs (and postdocs). It could be good to develop, together with the university and faculty, a sustainable infrastructure and funding mechanism for doctoral students and PhD programmes. They are important for the continuity of research and research clusters, and cannot be left to depend too much on external funders.
- Good research training could potentially be the driving force of the research environment. It seems as if the department might have some good selling points in terms of research expertise, which might also be translated into a research training programme that focuses on transferable research expertise (interdisciplinary methods, practice-based, transdisciplinary, action-research, in/through/by). These all are quite topical issues within research methodology, in which the Department of Conservation might have some substantial expertise.
- Proactive work towards obtaining co-funded or collaborative doctoral students could be of importance. This could help ensure that the doctoral education answers the needs of the department and the knowledge production needed within the discipline, as well as the needs of external stakeholders.
- A stronger research education programme with long-term collaboration around courses (basic courses and/or temporary courses around specific themes) with for example Campus Gotland could also be examined (such a collaboration was,

- for example, developed between the four Swedish architecture schools, *ResArc*).
- Support the teaching activities of PhD students so that it does not have a negative impact on their own research time.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There is a strong academic culture with many collaborations and an increasing level of internationalisation, together with internal activities i.e. colleges and higher seminars. Also, the creation of a research advisory board should be of value to the academic culture.

Weaknesses

- Publication culture might be improved. The quite large increase in research funding does not seem to have resulted in an equivalent increase in research positions. Instead the number of positions in administration has for some reason increased a lot.
- There seems to be a lot of research projects (or ideas for) going on but the research staff remain rather limited and not all 'levels' are present (e.g. post-doc) which is a possible problem in the long run for securing a stable research environment.
- During the interviews, it was noted that a lack of social space, together with the time pressures presented by teaching and research, has meant that department staff do not often socialise on a daily basis. The development of a collegiate culture facilitates the development of research and teaching innovations and opportunities.

Recommendations

- Increased research funding must also mean an increase in the number of researchers. The academic culture of a department is also dependent on there being a sufficient ratio of researchers in the environment. Our recommendation is to see if it is possible to increase the number of research staff with research education (and positions such as postdocs, associated senior lecturers, senior lecturers and professors).
- The higher seminars and colleges are important, but can only work through active, engaged researchers who publish research. A strategy on how publications, research activities, and grant applications can be followed up and discussed would be good. For example, could a system of seed funding for writing applications be introduced? Bringing in external speakers to run publication workshops, etc., might perhaps also be a good idea.
- A culture of research-led teaching, in which research feeds into and is integrated into undergraduate/postgraduate teaching, is a way of facilitating research, as well as the movement of postgraduate students into the doctoral programme.

D2. Publication

D2.1 Publication strategy

Strengths

- Two publication platforms (*Kriterium* and the *Elements* series at Cambridge University Press) have been established. A possible future multimodal *Journal of Craft Laboratory* is also planned.
- Publications in Swedish that reach audiences outside academia seem very strong.
- Publications in peer-reviewed journals and books have increased from 10% to 35%.

Weaknesses

- Publications in international peer-reviewed journals, and outside the department's 'own' publication platforms or more locally edited volumes, seem less strong.
- The genre of academically accepted products for assessment and publication is broadening a lot, since the international establishing of practice-based, artistic and by design research. Does publication strategy sufficiently invest in being at the forefront of these evolutions in the 'making disciplines'? There seems to be, as also mentioned above, a lack of adequate consideration of NTROs – engaging with these more would also facilitate research between CL and the other clusters.

Recommendations

- *Kriterium* and the *Element* series (CUP) are good for some publications, but not all. A more diversified strategy including international peer-reviewed journals, international university presses and more 'commercial' research presses (Routledge, Bloomsbury, etc.) would be of importance. In short, the established (in-house) platforms must be balanced with publications in a much wider field of journals and publishers for better and more diverse outreach. The research fields of conservation and heritage (as well as Swedish cases and experiences from Swedish history and society) need to be made visible and lifted as relevant in interdisciplinary, international journals as well.
- Continue the strategic work on multimodal disseminations and new publication forms. It could also be good to work more on the academic acknowledgment of other output types besides more traditional publications (exhibitions, films, restorations, art work, documentary videos, etc.).

D2.2 Analysis of bibliometric data

Strengths

- There is a variety of publications, with a particularly strong tradition of book chapters and books.
- There has been good improvement since 2004.

Weaknesses

- Research funding and publication numbers do not seem to have increased in a symmetrical way between 2004 and 2017; there is probably a strong potential for more publications. Peer-reviewed publication (including in international journals) is increasing, but the number is still quite low compared to many other research fields. In 2017, 26 FTEs produced 56 publications. Only 14 of these were ranked in the Norwegian system, which seems like quite a low number.

Recommendations

- Co-publishing seems quite strong, at 50 to 60% over the last three years, but could it be improved? An increase here, especially with international collaborators, would probably be strategic as it could improve publications, increase output and citations and, in the long run, perhaps further strengthen collaborations and academic culture.
- We do of course acknowledge the need and importance of writing for a Swedish audience, and that some research needs to be written in Swedish. This is, however, already a strength, so in order to develop outreach, there seems to be a potential in increasing the number of publications with good international publishers and in good international peer-reviewed journals.

D3. Facilities and research infrastructure

Strengths

- A lot of facilities, collaborations and strategies exist and seem to be working.
- Research infrastructure seems to be well developed.
- The development of infrastructural resources is a primary target for strategic work over the coming years.

Weaknesses

- It is easier to obtain initial investment than the resources required for maintenance and long-term management.
- The labs at the Gothenburg site were somewhat crowded.

Recommendations

- To keep existing infrastructures running and updated is expensive and at times difficult. Enhance collaborations both at the university- (inside and outside the faculty), and at the national and international levels, both in order to get access to new research infrastructure, and to secure collaborators and use of the existing local research infrastructures.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- There is ongoing work with these issues, and efforts towards gender equality have been made.

Weaknesses

- “*There are questions around gender equality and equal possibilities more generally throughout the department that still need a firm basis for decisions on measures and strategies*”, i.e. possible actions seem not to have been identified yet.

Recommendations

- Develop an agenda for actions. It could also be good for the leadership to secure a ‘living strategy’ on these issues (cf. B2), so that risk assessments and potential problems can be followed-up continuously.
- Mentoring programme between senior and junior women (and men) may be useful – not simply to implement, but to be seen as part of the job description for senior women (and men).

D4.2 Internationalisation**Strengths**

- Very strong ongoing international collaborations through CCHS, CL and the Marie Curie ITN networks.
- Good presence of international experiences at the department and good work with international recruitment.

Weaknesses

- Co-publication with international researchers seems to be quite low.

Recommendations

- Continue the good work. Increase co-publishing with international researchers.

SECTION E – SUPPORT**E1. Internal research support****Strengths**

- Good organisational structure.

Weaknesses

- Administrative support around research questions.
- Issues (of practical nature) with support for international/newly-recruited researchers.

Recommendations

- Look through the strategies for administrative support, who can help with what and who has the responsibility for what? In the light of recent recruitments of administration staff, it seems realistic to, for example, increase administrative help for the development of grant applications.

E2. Faculty and University-wide support

Strengths

- Good infrastructure around recruitments, grants and sabbaticals.

Weaknesses

- Low number of internally funded doctoral students and positions for young researchers.
- Is there enough internal funding to create the necessary leverage for applications to larger (EU) external funding?
- Financing important laboratories and research infrastructure at the departmental level seems risky.

Recommendations

- Strategies for securing a stable set of research positions on all levels (from PhDs to Professors), and for managing the relation between internal and external funding, might be needed.
- The system for distributing internal funding within the faculty needs to be revised.
- Discuss principles for support for laboratories and research infrastructure with the faculty.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The strategical work around research seems to be well on its way, with a lot of good infrastructure now in place. Although international collaborations have much increased, there is still potential for collaborations (within the university, nationally and internationally), especially within the science and conservation cluster.

The new publication platforms mentioned (*Kriterium* and the *Element* series at CUP) are good for promoting the research environment, but it is also important to reach out into other discourses and dissemination forms and not to stay within your own publication platforms. There is also a need to develop a way of recognising and valuing NTROs. Complementary strategies are thus needed here.

In comparison to RED10 the department states a 30% increase in publication since 2010, but this should probably be contextualised with the level of research funding, which has actually more than doubled. This would mean that, in relation to funding, the department publishes less today. Quantity is of course not everything, and we have not had the opportunity to assess the publication quality, which might have increased. Nevertheless, it seems quite realistic to say that publication rates could and probably should increase more. The rise in the number of peer-review publications is very good, but also here we think that this number would probably need to increase more if the department is aiming for a stronger international

impact. Here strategies and goals (such as recruitment) need to be discussed and defined by the department.

The problem regarding the flux of postdoctoral and early career researchers was mentioned in RED10 but is not addressed in the self-evaluation report, and neither does it seem to have improved much. The department might want to investigate and propose strategies for ensuring opportunities for early-career researchers, and for ensuring the further development of the PhD programme.

F2. Other matters

No other matters.

CONCLUDING RECOMMENDATIONS

The Department of Conservation has developed its research, increased the number of publications, increased research grants and successfully worked with internationalisation and the consolidation of two research platforms, and is working on strengthening a third. It has also restructured its leadership structure and organisation in order to achieve a more integrated organisation and enhance the possibilities for collaborations across different research fields. It is against this background that we summarise some of our concluding recommendations:

Background and Research Standing

- The base level of funding for the dynamic, complex and interdisciplinary Department of Conservation seems to be too low to maintain a sustainable level of research and teaching. The level of funding risks diminishing the department's international research profile and impedes its ability to recruit and retain internationally- and nationally-recognised researchers.
- There seems to be a lack of medium- and long-term strategies. Use existing infrastructure to formulate more detailed common goals here so that a clear sense of purpose is engendered among the department's research staff.
- The development of shared and organisational goals will be useful for testing the new management and leadership structure that has now been in place for nine months. It was noted in meetings with staff that they were often unsure about how the new structure was working and what its goals were. There is also a sense, shared by the panel, that there may be too many management layers.
- A meta-level discussion within the department is needed to define not only shared goals and to develop collegiality, but also to develop a shared sense of identity and to increase self-confidence in the interdisciplinary nature of the department.
- Discussions and workshops are needed to develop pragmatic research strategies for increasing peer-reviewed and international publications.
- The research profile and its ambitious span gives an interesting and distinguishing profile that captures the width of *kulturvård* as a subject. The outspoken inter- and transdisciplinary character of the research is also a possible 'selling point' in today's research world, but it needs strategic work and strong

collaborations to keep up. There is a strong need for the department to move from having experience in interdisciplinary research to becoming experts in interdisciplinary research.

- Develop a strategy for ‘non-traditional research outputs’ (NTROs) that aims to influence the ways in which these outputs are recorded in research bibliometrics (it is noted that bibliometric data on NTROs was not included in the self-evaluation report). It may be useful for the department to develop networks with other departments in other universities to facilitate a change in the ways in which NTROs are assessed and valued.
- NTROs are potentially quite important for a subject such as *kulturvård*, and need to be recognised as such by the department – this requires educating the faculty- and university levels as to the importance NTROs play as legitimate research outputs and in recording research impact and engagement. Failure to do so will risk the department’s international status where NTROs are an expected part of the research profile of Conservation and Heritage Studies (and the broader field of ‘making’ disciplines).

Leadership

- Discuss the rules of internal funding with the faculty and develop a transparent policy for the distribution of funds. Since the Department of Conservation might have a more complex and pluralistic way of disseminating research (which also has the potential to increase societal impact and collaborations, and should be honoured), this strength must not be viewed as a disadvantage when it comes to internal funding.
- It is important for the department to develop a living strategic and change-management document for the department leadership that provides a framework to assess and respond to developing issues and needs in research, teaching, and gender balances in staff recruitment.
- Increase and develop national and international collaborations within the cluster of science and conservation.
- Investigate possibilities for increasing the percentage of persons or FTEs conducting research at the department (in order to better respond to the increase in research funding, and to increase research output). The overheads that the department is required to pay appear quite high and risks binding up internal funding to top up external projects/funding. The staff data illustrates that the number of FTEs with research qualifications (professors, senior lectures, associate senior lectures and postdocs) amounts to 22 and technical and administrative staff amounts to 21.6. This seems unsustainable, and it was unclear to the panel why the number of technical and administrative staff was so high. (Yet, concerns were raised that laboratories do not have technical staff assigned for equipment maintenance).
- Increase student representation in boards to include two rather than one student on each board.
- Secure career possibilities at all stages: here it seems as if the department really needs to look more carefully at career opportunities for younger researchers.
- It is important that assessments be done in a way that encourages research ac-

tivities in the long term. Do not use quantitative assessments alone (as it might risk replacing real goals with pseudo-goals – one could perhaps argue that the faculty's Web of Science system for funding, might also incur this risk). It is also important to find ways and forms of assessing non-traditional forms of research that have utility for local communities and heritage organisations.

Complete Academic Environment

- There seems to be a problem with achieving an even flow of PhDs and post-docs. It could be beneficial to work with the university and faculty towards a sustainable infrastructure and funding system for doctoral students, PhD programmes and postdoc programmes (or equivalent). They are important for the continuity of research and research clusters, and cannot be left to depend too much on external funders.
- The department has a good record of achievement in collaborative research, including PhD students, and this can be built on to enhance the department's interdisciplinary profile.

Academic Culture

- Increased research funding must also mean an increase in the number of researchers. The academic culture of a department is also dependent on there being a sufficient ratio of research/researchers in the environment. Our recommendation is to see if it is possible to increase research time and the number of research staff (and positions such as postdocs, associated senior lecturers, senior lecturers and professors).
- The research fields of conservation and heritage (as well as Swedish cases and experiences from Swedish history and society) need to be made visible and lifted as relevant in interdisciplinary, international journals as well. The department has a good record of publishing accessible publications, but this must be balanced. It seems important to find strategies to increase the number of peer-reviewed publications, especially in international peer-reviewed journals and academic book publishers.
- It is important for the department's academic culture that transparent policies be developed with regard to the distribution of internal research funding. The department might also consider leverage or seed funding grants to facilitate the development of new research projects that may then seek external funding. Transparent policies are vital for the maintenance of a collegiate academic culture.
- A lack of good social space was noted in the department, and this, together with the time pressures presented by teaching and research, has meant that department staff do not often socialise on a daily basis. The development of a collegiate culture facilitates the development of research and teaching innovations and opportunities.
- A culture of research-led teaching, in which research feeds into and is integrated into undergraduate/postgraduate teaching, is a way of facilitating research. This may also facilitate the movement of postgraduate students from within the Department of Conservation into the doctoral programme.

Support

- Better provision at the department-, faculty- and university level is needed to support the arrival and induction of international students and staff at the department.
- Strategies for securing a stable set of research positions on all levels, and for managing the relation between internal and external funding, are needed.

DEPARTMENT OF EARTH SCIENCES

384	Introductory Remarks
384	Section A – Background and Research Standing
384	A1. Background
386	A2. Research standing
388	Section B – Leadership
388	B1. Leadership
390	B2. Recruitment
392	B3. Career structure
392	B4. Funding
393	B5. Feedback and evaluation
394	Section C – Complete Academic Environment
394	C1. Collaboration
395	C2. Relevance and impact on society
396	C3. Research-teaching linkages
398	Section D – Academic Culture
398	D1. Academic culture
399	D2. Publication
400	D3. Facilities and research infrastructure
401	D4. Transverse perspectives
403	Section E – Support
403	E1. Internal research support
404	E2. Faculty and University-wide support
405	Section F – Other Matters
405	F1. RED10 evaluation
406	F2. Other matters
407	Concluding Recommendations

INTRODUCTORY REMARKS

The panel process was very intensive. In addition to reading many documents in advance of the visit to University of Gothenburg (UGOT), the panel spent two full days at the department, conducting interviews with almost all staff involved in research: the head and deputy head, the strategy group and many cohorts of professors, senior lecturers, researchers, postdocs, doctoral students, and research engineers. We had a guided visit to the facilities of the department, such as the computer teaching hall and many laboratories. We held a follow-up discussion with the Head and Deputy Head as we ended our work, to discuss our first-order findings and to ask some additional questions. The panel felt that there was adequate time for on-site discussions and that the atmosphere was generally responsive and open. The Department of Earth Sciences (GEO) was cooperative and responsive to our queries, willing to provide all relevant data, and they were excellent hosts during our site visit.

The panel received many helpful documents, but some additional, specific information would have been helpful, particularly for non-Swedish scholars. Specifically, it would have been helpful to better describe what legal constraints are in place for block funding and how and why block funding decisions for each department are made at the university level. We were able to discover such things, but only with some detective work. The self-evaluation report could have been more informative in terms of what the different position titles actually mean, how tenure is decided, and by specifying the research roles of each staff member (i.e., citing names and their active research areas, not only research disciplines). As well, because we were asked to look into the research-teaching link (e.g., section C3), it would be good to understand what the teaching load/course content is for staff members.

The panel composition reached across many disciplines and the panel worked together very well.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department structure includes a small, high-level administrative team, a Strategy Group, an elected Departmental Council representing staff of all job class, and individuals holding specific leadership roles (e.g., PhD programme, Geography programme, graduate advising, etc.). The high-level leadership team includes the Head, Deputy Head, Administrative Manager, and Director of Study. The Head of Department and the Deputy Head are new in their positions (<1 yr.). The Strategy Group, charged with in depth evaluation of strategic decisions, includes a subset of professors and lecturers. Apart from this leadership structure, the department has a generally flat hierarchical structure, where individual staff members have a high degree of autonomy. The principle of leadership at the department, as stated

in the self-evaluation, is “*valuing academic freedom and respect for the individual capabilities across different staff groups*”. This was reflected in the interviews and discussions with the staff members.

GEO indicates that its ambition is to be a “holistic unit of Earth system science researchers” and the leadership has tried to downplay previously defined sub-units within the department. But they are far from their goal. This transition will require an extensive re-examination of how GEO defines itself. To the panel, the department seemed highly fragmented and imprinted by past disciplinary groupings and a complex degree programme structure. The department is informally divided into two scientific sub-disciplines, geology and physical geography, aligned with the current degree programmes offered. These sub-disciplines are further divided by subject fields or thematic units, including four themes within Geology and nine within Physical Geography. **The main concern of the panel regarding the department’s organisation is the lack of a structure which best promotes the department’s research and the extent of disciplinary fragmentation.** GEO presents itself as representing a very large number of subject fields (13!) – too many, we believe, for such a small department (six professors, nine senior lecturers). The panel sees this as an obstacle to a high-quality, coherent research programme, because most of these subject fields lack the critical mass to support a strong doctoral degree programme or to create significant synergy. Further, with each subject field requiring a selection of instrumentation and laboratory or field infrastructure, it makes it difficult for this small department to provide adequate technical and financial support to all areas. **Our top recommendation is for the department to identify a few thematic focus or “scientific challenge” areas which bring all of its research groups together under a larger, simpler umbrella, and to direct financial and other types of support to these focus areas to promote synergy and greater internal and external collaboration. Such reorganisation would strengthen the department’s research position, increase its international scientific visibility and, finally, delete the vestiges of former structures and fragmentation.**

During the panel interviews, we challenged individual researchers to identify these unifying themes and departmental strengths. There was great reluctance to do so, perhaps in part because calling out strengths would imply weakness in other areas, but the most evident reason was that many of the researchers adhere to the concept of the strong, “free”, individual researcher (also known as the “lone wolf” academic model). Several stated this is the desired model for Swedish researchers and UGOT. The panel strongly disagrees about the desirability of the “lone wolf” approach. In general, most national and international funding agencies prefer to fund the larger, interdisciplinary science teams required to address complex problems, teams that can fully leverage large infrastructure investments. Those same interdisciplinary teams are highly attractive to top graduate students and scholars. **It is the opinion of the panel that continuing to support a loosely-connected department of individual PIs without identifiable synergies will lead this department to being a technically good, but largely undistinguished, department.** This issue is further discussed in the subsequent section.

The departmental structure cannot be discussed without reference to the university restructuring in 2015, which created a new Marine Sciences department (see also section F1). That restructuring reduced GEO professors from ten to six, and one-third of the staff also moved to the new department. **Since this restructuring, the university has taken no action to rebuild the Department of Earth Sciences, which remains at six professors. This leaves UGOT's Department of Earth Sciences the smallest earth science department, by far, among Swedish broad research universities** (nine professors at Stockholm University, 11 professors at Lund, and 22 professors at Uppsala, an integrated earth, marine and atmospheric science department). While the quality of GEO remains high – its publication metrics are higher than Marine Sciences' – the restructuring had a large impact on its potential international visibility and, consequently, its ranking.

A2. Research standing

In general, the panel assesses the standing of the department's research profile to be average, but we see many possibilities for improvements and a higher profile. Most importantly, the panel finds the current structure too diverse and scattered for the department to be recognised for its strengths. The department's research vision is to improve *“understanding of the dynamics of Earth's systems and processes, from the Earth's core to the troposphere, in order to allow society now, and in the future, to live sustainably on Earth and to respond knowledgeably to its natural hazards, its limited resources, and our changing climate”*. Even with the license typically given to vision statements to imagine grand outcomes, this vision is a great overreach for a department of this size! This is a vision for a department ten times its size!

The self-evaluation and our panel interviews point to a core difficulty that this department must face directly in order to build towards a future of greater national and international impact and visibility. **This department is challenged to recognise and build upon its strengths, and to create a research environment emphasising and valuing collaboration and synergy. It must find ways to “be bigger than it is”**. Throughout the self-evaluation, subject fields and thematic elements are divided and sub-divided, with 13 different subject fields listed. These range from microgeochemistry to alpine and polar ecology, and from land-use and greenhouse gases to GIS and geophysics, i.e. almost the whole spectre of research topics that are normally included in an entire science faculty. In some cases, these fields are represented by the research of a single person and, in a few cases, we could not identify the responsible person within the department. Most of these subject fields lack the critical mass to maintain a robust research programme. A few of the subject fields, notably related to climate studies, are of feasible size and have been successful, in that they have been able to receive external funding, attract new PhD students and postdocs, and build a notable record of publications.

According to the bibliometric statistics, the department's scientific output is comparable in quality to other major Nordic Earth Science departments and comparable or better than other UGOT natural science departments. However,

research quality alone cannot overcome the handicap of the very small size of the department for gaining international visibility and stature, leading to a very modest ranking of the department (see section D2.2 for detailed analysis). Increasing both the number of publications per faculty member, and the number of actively-publishing staff may modestly boost visibility, but this, alone, is unlikely to make a big enough difference. The department must make additional efforts to frame themselves, conceptually, and promote themselves to the larger community.

In the immediate term, the department can grow its research profile and benefit from a strong base of research infrastructure and instrumentation. GEO hosts the UGOT central infrastructure, “Field stations for Earth System Science”, an umbrella for research stations belonging to the Swedish Infrastructure for Ecosystem Science (SITES) and the International Carbon Observation System (ICOS). In addition, the department has excellent new laboratory facilities for microgeochemistry and isotope analysis (ISOGOT laboratory), which will make it possible to develop methodology and research across many areas of research. The panel agrees with the department’s self-evaluation that it may be possible to establish a position as a world-leading centre in site-specific beta-decay based dating. The challenges of maintaining and effectively utilising this extensive infrastructure are discussed in other sections of this report. The point is, **the department has access to considerable infrastructure and is encouraged to seek ways to maximise their utilisation of it.**

The panel discussions with the Strategy Group and individual researchers made it clear that, regardless of what is written in the self-evaluation, the department has not yet defined a shared vision for the intermediate term (5–10 years). For example, the self-evaluation suggested strengthening the interdisciplinary cooperation between the two sub-disciplines (geology and physical geography) as a medium-term aim. It envisions the department becoming “*a leading institute in key areas of Earth System Science (ESS)*”. Each goal is laudable, but neither has a realistic path to achievement. How can the department rise to a leading international position in ESS, requiring broad and interdisciplinary research, if the faculty persist in their preference for “strong, individual research programmes”? The panel suggests that a more realistic way to move towards their aspirations would be to **identify a few scientific grand challenges or unifying research themes (no more than three) which bring all of its research groups together under a larger, simpler umbrella.** The challenges/themes should be globally central and important in Earth sciences, with high scientific visibility, potential for scientific breakthroughs and future growth, and they should have important societal and economical applications and implications. They should not be defined by discipline and should encompass the present research teams and laboratories. In fact, many research teams should be able to envision contributions across multiple themes. Below, we list a few suggestions, but we encourage a full discussion in the department for considering their structure.

Climate Change Impacts is a theme which draws from many disciplines to address a critical grand challenge. It encompasses ongoing research in biogeochemistry, alpine and polar ecology, aspects of tree ring research, water resources and land-use, certain geological hazards, and greenhouse gases. Aspects of regional climate research, Quaternary geology, and physical geography could contribute to this theme, even if they align with other defined themes. This theme would make use of the excellent research facilities, including the Skogaryd field station, and would strengthen the department's contributions to the wide international networks ICOS and SITES. Research in this theme could broadly utilise the department's laboratories. It could be a focal point for discussions and projects in course work.

Regional and Applied Climate Research would unify the successful research teams studying high resolution and applied climatology (regional climate modelling, tree ring research, urban climate, paleoclimate, polar climate, road climate). Consider how these studies impact adaptation or mitigation to be inclusive of the human dimension of these studies.

Integrated Earth Processes (we had some trouble finding a good name) would integrate the research in microgeochemistry, geochronology, hydrogeology, geophysics and Quaternary geology to resolve fundamental Earth science challenges such as ages of geological materials, rates of change, geochemical drivers and cycles, and subsurface characterisation. It would promote and make good use of the outstanding analytical geochemical facilities the department possesses and research would likely cross-over with biogeochemistry and ecosystem studies, among others.

Most importantly, identifying a few challenges/unifying themes will bring together departmental researchers to create the critical mass necessary for increasing the department's international visibility and impact. An emphasis on challenges is attractive to students, who now find "geology" and "geography" to be stale. Defining the challenges/thematic elements is only the first step! The next is to identify all of the synergistic connections between the different themes and to build towards collaborations and multidisciplinary teaming.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The current GEO Head (Prof. Roland Barthel) was only recently appointed (July 2018), after six years as professor in GEO. He was recruited to UGOT from the Helmholtz Center for Environmental Research (Leipzig) as a strong, external, mid-career hire. He is very dedicated to this relevant and challenging position and has a good overview of UGOT governance structures, as well as

GEO research and its departmental “personality”. The staff were largely complimentary of his early efforts, and he appears to have their confidence. He has already identified and thought about many of the observations, suggestions and critiques the panel makes in this report, but sees strong limitations for growth and development of GEO in the current administrative structure within the Faculty of Science and under the financial regulations of UGOT.

- The Deputy Head of GEO (Dr. Tobias Rütting) has been at UGOT since his postdoc time (since 2008) and moved to GEO in 2013 from the Department of Biological and Environmental Sciences. He has served on faculty panels and commissions and thus complements the Head of Department with his longer UGOT experience. Both work as a good team to lead the department and have realistic expectations about potential options for GEO within UGOT. The Director of PhD Studies (Dr. Louise Andresen) has only recently taken over this responsibility in 2019 with a 20% time allotment.

Weaknesses

- The small size, very limiting financial resources, and high teaching obligations of GEO strongly restrict the degrees of freedom to lead and further develop GEO. A clear strategy is still missing, partly due to the short time the GEO leadership has been in place, partly due to the restrictions mentioned. An integrative strategy will help the Head to lead the department for the benefit of GEO and UGOT, rather than focussing on the benefit of individual groups. **The panel sensed a lack of departmental spirit and comprehension of *departmental* needs, rather than individual needs, when talking to employees. The department sees itself united by teaching, not by research. Unfortunately, this leads the department to commit to growth and development based on teaching commitments and not research potential, which in turn restricts academic outcomes and visibility.** The Director of Studies is a researcher with a permanent position but no permanent salary. Taking over such a responsibility at this stage of her career seems rather unsustainable and difficult to combine with the challenges of excelling in science.

Recommendations

- **A departmental strategy is needed that unites the individual groups in research and creates a departmental spirit beyond teaching.**

B1.2 Faculty/University level leadership

Strengths

- At the university level, the creation of UGOT Challenges – six multidisciplinary research initiatives to address important global societal challenges – was a bold step towards reframing UGOT research from a traditional focus within departmental structures to a modern intellectual synthesis driven by societal challenges. These centres are not yet inclusive of all of the university’s strengths, but we realise the financial constraints of such an internally-funded initiative. This initiative has had an enormous impact on the visibility of UGOT and

should be seen as an example of a balanced top-down and bottom-up approach to building multidisciplinary science within the university. This should not be a “one-time” effort. Centres attracting the interest of international funding agencies should be continued, unsuccessful centres should be sunset, and the development of new centres should be encouraged and promoted.

Weaknesses

- Apart from UGOT Challenges, the university and, especially, the Faculty of Sciences is remarkably hesitant, compared to their equivalents in top universities across the globe, to assert leadership or steer research in any way (“*the faculty does not and will not steer research*”). University leadership must develop institutional strategies that reach beyond tending to paperwork. They must engage with the professoriate, federal and regional stakeholders, and students to identify and build the institution of the future. They must help to define pathways by which the intellectual and educational capacity of the university is exercised for common goals and the common good. For GEO, this is particularly important because it was significantly impacted by the formation of Marine Sciences, but did not subsequently receive guidance (nor funding) on how to rebuild.

Recommendations

- **Strong leadership at the university and faculty levels begets and encourages strong leadership at the departmental level.** The reverse is unfortunately true and is pandemic at UGOT. Over and over again in panel summaries, the themes of timid leadership and individual rather than institutional goals were expressed. Unfortunately, that is a path that leads to small ideas and small achievements at a time when global societies need big thinkers and solutions for very challenging and complex problems. UGOT leadership must redefine their roles and ambitiously lead the university into the future.

B2. Recruitment

Strengths

- In the past, the department too frequently defined their new hires in terms of teaching needs rather than building for research strength and synergy. According to the self-evaluation (but not fully understood by all staff members) there is the guiding idea that new GEO hires at the senior lecturer level will consider both research and teaching in the future. This will allow a closer bridging between research and teaching, based on the expectation that people do both.
- **GEO is very international compared to many UGOT departments, across all staff types and including postdoctoral fellows.** A large number of the teaching staff are also international, though not the majority (8/17).

Weaknesses

- Especially in an environment where new permanent positions are rare, the process of recruitment must be closely aligned to the department’s mid- to long-term strategic research goals. The Strategy Group (then as the Strategic Task Force)

developed a plan for how to recruit (*emphasizing process*). But, the **real** need is for a guiding strategic plan (*defined goals and pathway to achieve them*). The department needs to carefully think about *who* to hire, not *how* to hire them.

- Although the department is fully autonomous in terms of finances, hiring decisions are strongly influenced by the faculty-level hiring panel and external reviewers. The department shares its list of finalists but has little say in the final decision. This is seen by UGOT as a way to guarantee fairness and thoughtfulness in the hiring process. This may be a requirement of the Swedish system. In most universities, however, fairness and thoughtfulness are conducted as an oversight activity, with the power to influence selection when the process of selection appears compromised, but not necessarily as a role of doing so in every case.
- The gender balance in GEO shows a very leaky pipeline, with only one out of six professors and one out of nine senior lecturers being women. The leadership is aware of its gender imbalance and is open in its support in particular for increased hiring of women in senior-level positions. Tight hiring conditions and institutional selection policies have made changes toward greater gender balance difficult to achieve. **Options for dual career hires seem very limited in the Swedish system, restricting the opportunity to hire excellent persons and placing Swedish universities at considerable disadvantage in recruiting top candidates, compared to many institutions across the globe which enable dual career options.**
- **The department has a wealth of instrumentation and field infrastructure, but a dearth of technical staff to help them use these facilities with greater effectiveness and efficiency. This impacts research productivity significantly and the cohorts of PhD students and postdocs raised this as a limiting factor in their research.** Technical staff is lacking to support early-career scientists and to use the excellent infrastructure more efficiently and effectively.

Recommendations

- The panel recommends that the department make extra effort to increase the percentage of women faculty and to increase the technical support for its generous infrastructure and instrumentation. That will result in greater opportunities for internal and external collaborative research.
- The department and faculty need immediate succession plans for Prof. Leif Klemedtsson, whose retirement is imminent. Dr. Klemedtsson is the UGOT PI for large national and international consortia and is responsible for their core infrastructure. His research area is a keystone in collaborative research on climate change impacts. Two research engineers are fully supported to enable broad use of the infrastructure. Dr. Klemedtsson has expressed interest in a brief period of overlap to allow him to transfer important institutional knowledge about the infrastructure, as well as to support integration of the new professor with the existing consortia. The infrastructure investment that has been made in these sites is irreplaceable, and the strength of Dr. Klemedtsson's research profile, as well as his familiarity with the funding systems for these sites have been very important to the department's research profile.

B3. Career structure

Strengths

- There are different positions with a permanent contract available for scientists who wish to stay in academia for research and teaching: researchers, research engineers, senior lecturers, professors. Career development talks take place annually. The age structure of GEO is well balanced (senior lecturers and professors: about 50:50 below and above 55 years).

Weaknesses

- There is little difference in the expectations of professors and senior lecturers in GEO. Both groups have about the same teaching load and lead their own research groups. But, the visibility of senior lecturers is much lower (e.g. on the web). Current university-level discussions on limiting or prohibiting promotion from Senior Lecturer to Professor, intended to increase mobility and internationality of the faculty, is counter-productive to a small and already-international department such as GEO.
- All levels of staff scientists appear to have a high percentage of teaching, which by default limits their research output. Insufficient thought is given to ways for managing these loads while still meeting the teaching needs of the students. The increased funding that comes with extra enrolment is enticing, but may be counterproductive to larger departmental goals.
- Career development and opportunities for promotions within GEO are limited; many employees stay in their positions at UGOT due to family reasons. The number of PhD students is relatively low, but the trend is increasing.

Recommendations

- **The panel recommends a concerted effort by the university to rebuild the department back to 10 professors, in order to increase its scientific visibility and attractiveness to prospective students. The teaching load per person needs careful consideration, adjusted to an integrative GEO strategy.** The department must carefully consider the value of time spent teaching and time spent in research, together with national expectations. Is there a leaner way to meet those expectations?

B4. Funding

Strengths

- **About one third of GEO funding comes from third party funding (mainly from the Swedish Research Council, VR, and the Swedish Research Council for Sustainable Development, Formas) which is considered a healthy percentage for any department.** The department has important funding for the development of the SITES and ICOS field infrastructure, although the requirements for the funding differ between grant periods. This is tied to a retiring faculty member (Klemedtsson), a looming issue that must be addressed soon.

Weaknesses

- The development of a small department like GEO seems highly restricted by the current (and somewhat arbitrary) financial boundaries, which are determined on past numbers of professors (2012 benchmark, block grant) and numbers of students taught. This leads to a strong emphasis on teaching to increase overall funding, which restricts research and scientific output and, in turn, reduces visibility and attractiveness to students, a vicious cycle that needs to be broken. Funding opportunities for administrative assistance are very low as well. The moderately strong scientific performance of the department (in terms of per capita output and the quality of their research publications) has not been adequately acknowledged by the current distribution system. The faculty leadership seems unwilling to move funds between departmental units. But, that is the only way to reward high-performing units and to raise their international visibility and reputation. Ironically, in not choosing “winners” and “losers”, the faculty/university makes a *de facto* choice of winners and losers. The funding from EU sources are low (<5%).

Recommendations

- **The panel recommends that the department streamline teaching efforts and better leverage the potential synergy between research, teaching and infrastructure facilities.** Attention should be paid to developing proposals and collaborations that leverage the infrastructure to increase EU funding. Metrics should be used as part of the evaluation for funding distributions, and **we encourage the faculty to consider performance-based adjustments between department budgets.** Otherwise, the system is locked on a path that does not reward productivity.

B5. Feedback and evaluation

Strengths

- The GEO leadership conducts individual career development talks annually. Postdocs and PhD students generally feel well mentored. Research engineers feel highly valued and acknowledged, but there is uncertainty on the part of the engineers supporting large field infrastructure, after many years of a strong research relationship and commitment by a soon-to-retire PI. Review and feedback on proposals has been introduced. Employees are involved in departmental discussions (e.g. strategy group) and have the opportunity to advise the GEO leadership.

Weaknesses

- The value of annual career development talks is considered low by many employees. The employees also consider the career development talks from their own perspective and not so much from a departmental perspective, i.e. their contributions to developing and strengthening GEO, reflecting the lack of departmental spirit described earlier. Many of them proclaim they don't see the need for such talks, as they know what they want to do. They do not perceive that they have responsibilities to the department or institution. This misconception

tion will prove damaging to institutional goals and aspirations. Thus, leadership at all levels must begin to educate staff on the mutual responsibilities of staff and institution. The Head of Department plans to make departmental and institutional contributions an explicit part of his annual discussions, but it will likely need to be a concept encouraged at the highest level.

Recommendations

- The panel recommends working on the establishment of a departmental spirit, e.g. by carrying out a departmental retreat on research strategy for GEO, focussing on a common vision and not on the individual groups.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- All researchers in GEO have their own national and international networks, sometimes limited to their own discipline, sometimes very interdisciplinary. Examples of interdisciplinary national networks are BECC (Biodiversity and Ecosystem services in a Changing Climate), SITES (infrastructure of nine terrestrial and limnological research stations), and MERGE (Modelling the Regional and Global Earth system). Great examples of international networks are GEO's roles in ICOS RI (Integrated Carbon Observation System Research Infrastructure), TPE (Third Pole Environment), PAGES (Past Global Changes) and ITEX (International Tundra Experiment). These larger networks are not only attractive for students but also allow scientists to publish together on larger, often global challenges, and to shape the science of tomorrow.

Weaknesses

- GEO writes that it “*has no expressed strategy of supporting, promoting and incentivising collaboration as collaboration is seen as a natural building block of conducting research*”. While collaborations often do develop naturally, leadership at the departmental and institutional level can support and promote collaborative efforts, and do, at many universities. This department, specifically, appears to have limited experience building collaborative research teams. Joint departmental projects across individual groups within the department or across departments at UGOT are largely missing. For example, the excellent infrastructure, such as the field sites that GEO hosts, has mainly been used by individual groups, as well as in international consortia. Within GEO or UGOT, joint use is only now being developed. Links to Chalmers University of Technology also seem underdeveloped and underused.

Recommendations

- **An integrative departmental strategy is clearly necessary, and we strongly encourage the departmental leadership to reconsider the departmental position on collaboration. It may be very effective to have the clear intention to “support, promote and incentivise” collaborative research.** Such a strategy should also address joint intra- and interdepartmental projects/programmes to develop and promote local synergies. These would certainly be more attractive to prospective bachelor’s/master’s/PhD students. A clear strategy on infrastructure use, joint equipment use (including user fees to pay for some of the maintenance and salary costs) is recommended. The department should watch for, and target specific funding calls, encouraging discussions between researchers to form the appropriate team to seek such funding. Links to Chalmers should be explored and used, particularly for joint projects but also PhD education.

C1.2 Collaboration with external stakeholders

Strengths

- Many researchers have close contacts to stakeholders, e.g. municipalities, consulting companies, mining industry, national agencies (Geological Survey of Sweden, Swedish MetOffice) or industries. These are used for joint and commissioned research, sometimes also for placement of master’s students, as well as for teaching (e.g. on Road Climate).

Weaknesses

- The department shares a building with one of the regional offices of the Geological Survey of Sweden, but the panel heard nothing about the potential for collaboration or opportunities for students to work jointly with SGU staff and UGOT researchers. There are many universities in the US that are closely aligned with their state survey or the US Geological Survey, which brings significant mutual benefit to the two groups, especially for bachelor’s- and master’s-level research opportunities.

Recommendations

- **We recommend that GEO seek ways to expand collaborations with the Geological Survey of Sweden, particularly for master’s thesis projects.** We also recommend making the links to stakeholders more explicit on the new website, given that interactions with potential employers are attractive for students.

C2. Relevance and impact on society

Strengths

- GEO addresses highly relevant global challenges like climate change and its impacts, natural hazards, sustainable resource use, and ecosystem services. Many of GEO’s activities are linked to these grand challenges, including groups from physical geography and geology.

Weaknesses

- The links of GEO research to these grand challenges are not well communicated, not on the web nor in the self-evaluation report. One of the outcomes of reframing the department's thematic units would be to draw attention to these connections.

Recommendations

- We recommend starting a strategy process, identifying the grand challenges GEO is addressing and clustering the groups around these challenges instead of presenting each group individually, separated and unlinked to the departmental aims.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- GEO hosts the bachelor's and master's programmes for both Geography and Earth Sciences (with Physical Geography and Geology foci). In addition, GEO is responsible for the Geography Teachers Education. These subjects are relevant to many grand challenges we face globally and the skills (like GIS, water and mining issues) are in high demand by employers. These teaching obligations unite the department, and all members are heavily involved in teaching, which also brings in a large part of the departmental finances. In addition, teaching is very close to research throughout GEO. Part of the motivation for enhanced teaching contributions by GEO is also the fact that UGOT has the national duty to provide teaching at university level to Western Sweden. Moreover, certain disciplines, like meteorology, are no longer offered by any other UGOT department.

Weaknesses

- The entire department contributes to teaching (from PhDs to professors), but the overall teaching loads still seem high. The focus on teaching as the umbrella for common departmental goals has limited consideration for unifying research themes and for coalescing a departmental research strategy.
- The information available to students on the departmental website is fragmented, difficult to understand and, frankly, incomplete and not very attractive. After considerable time on the web, a potential graduate student may still have no idea who to reach out to in an area of interest.
- In Sweden, student numbers in geosciences are declining, thus the general attractiveness for the Earth Sciences and Geography programmes are also decreasing at UGOT. Geography is taught together with the *Handelshögskolan* (School of Economics, Business and Law), which provides the socio-economic expertise for the programme, but requires increased efforts for coordination.

Recommendations

- **The current degree programmes are divided along older disciplinary separations (geology, geography) that do not appeal to current students and that challenge the small department to offer a meaningful number of courses traditionally aligned with that degree.** The result is fragmentation and increased pressure to teach a lot of courses that are not well aligned with departmental goals, even though it is the department that determines the programmes and the courses. **Therefore, we strongly encourage the department, when realigning and renaming research themes and strategy, to implement a simpler teaching and degree programme that is better aligned with departmental research interests and that focuses students on global challenges, rather than arbitrary disciplines. Consider merging the two Earth Sciences and Geography programmes into a single Earth Science programme, promoting a basic skill set that is useful for addressing issues across the thematic elements.** The current faculty is truly hard-pressed to provide a true geology or geography degree. It is simply too small to do so.
- **Improve the web appearance in terms of providing conclusive and attractive info and modern, appealing context for teaching and degree programmes.**

C3.2 Doctoral education

Strengths

- Currently, PhD students need to take 60 credit points. All PhD students have multiple supervisors and one internal examiner. About half of the PhD students we met also have teaching duties, which are an important part of their preparation for different career opportunities. PhD students within GEO network informally within the department.
- In the last years, GEO started a co-funding initiative, where externally awarded research funds supporting PhD students are matched by the department (e.g., the student is 50% funded by the department). Co-funding is maintained through completion of their programme (4–5 years). The goal was to significantly increase the size of the PhD programme and the department has been very successful in meeting that goal, adding a new cohort of three co-funded students per year. GEO is attracting an international group of PhD students, and many have the future goal of remaining in academia. They visit national and international conferences to network and to present their research results. They were all familiar with the expectations for a successful PhD, e.g., publication and thesis requirements.

Weaknesses

- The PhD students we met stated that they receive excellent supervision, often 1:1 with their principal mentor, but identified technical support as a concern. Often, no technical help is available for running equipment, which can be particularly disadvantageous in the beginning of a PhD project, resulting in a slow start. This is obviously related to the limited funding available to GEO.

Recommendations

- Increase technical support for PhD students, particularly at the beginning of new projects. **GEO should continue financing PhD students with a 50% match for external grants. This has been very popular with researchers, and enables them to conduct more research on a tight research budget. Everyone wins here!**

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- GEO promotes a research culture emphasising “naturally-grown” research groups of various sizes (but mostly quite small). Most research groups have regular meetings to discuss their progress or issues, or to discuss papers in the literature. The department hosts a weekly seminar, with many internal speakers, but occasional external guest speakers. There are opportunities to bring in prominent researchers for broader presentations to the faculty. Students and faculty are encouraged to present their research results in international meetings or fora, but funding for travel directly impacts other research activities. A separate seminar series hosts the thesis defenses of master’s students and invited speakers, including current or former PhD students, who talk about their research experiences, as a way to encourage scientific careers.

Weaknesses

- While the above efforts promote a fairly typical academic culture, there is a striking sense of intellectual fragmentation, separating one research group from another, e.g. master’s from PhDs. How many seminars per week/month can a small department like this support without “seminar fatigue” setting in? Without explicit effort to broaden people’s horizons, there is a tendency to promote intellectual “silo-ing”, where groups are fairly homogenous in their interests and training.

Recommendations

- The department has the opportunity to promote interdisciplinary and collaborative science, or different thematic elements within the department (but one of three themes, not one of 13!) through a weekly, department-level seminar where attendance is expected. These seminars could address a broad reach of earth science, opening different parts of the department to new areas of research. Alternatively, if the department seeks to promote greater intra- and inter-departmental research, a series of seminars could be devoted to explore and encourage discussion along a research question or theme. Such discussions are a stimulus to encourage researchers to bring their skills to new areas of research.

D2. Publication

D2.1 Publication strategy

Strengths

- The department recognises the importance of faculty publication to maintain the performance-based faculty grant. They post new publications in the corridor and recognise new publications at weekly department meetings. The Strategy Team does an annual bibliometric review.

Weaknesses

- The department sees no need for a formal departmental publication strategy because “*researchers are actively publishing...in top ten journals in their ... research fields*”. Setting expectations should not be seen as an imposition. Most universities make publication a specific topic of annual performance reviews, to set expectations of performance and to identify a standard for the department. These are not necessarily difficult discussions. It encourages faculty to discuss publishing strategies with their peers and the Head – what may be the best journal to publish this, is there a special issue in the making that you want to get into, etc. Most importantly, it keeps this expectation front and centre in people’s mindset.

Recommendations

- Publications should continue to be a normal part of every annual performance review.

D2.2 Analysis of bibliometric data

Strengths

- Of the seven Scandinavian universities compared in the bibliometric data, GEO at UGOT ranks near the top (#2) for the top ten percent most frequently cited publications, top (tied #1) for average number of citations, and generally very good (though variable year to year, from #1 to #5) for average normalised number of citations per publication. **These data suggest that the quality of publications written by UGOT Earth Science researchers is comparable to the quality of publications from scientists at other Scandinavian broad research universities.**
- But these data do not tell the whole story. In terms of total number of publications, UGOT Earth Science is at the bottom of the list, with only one-half to one-third of the total number of publications. There is a high cost of this in terms of departmental ranking, which is based on reputation and overall impact. The QS World University Rankings for Earth and Marine Science are the following: Oslo (33), Bergen (37), Copenhagen (49), Stockholm University (51–100), Lund and Uppsala (101–150), with no ranking for Gothenburg. The Times Higher Education list for Earth Sciences has Uppsala (87), Lund (98), Stockholm (153) and Gothenburg (201–250). There are a myriad of details in the construction of this type of list, but we are using these data to make the

point that **total research impact is, to a significant degree, tied to the size of a department. Even with publications of equal quality, a small department will simply have far fewer papers, across fewer areas of research, with lower total cumulative impact.** Similar statistics would be seen in the US, where the top 20 US Earth geoscience departments (and many of the following 20, as well) have one commonality: more than 20 professors (across all ranks).

- Compared to other natural science departments at UGOT, GEO is clearly a strong department, surpassed only slightly by the Department of Biological and Environmental Sciences in top 10% and normalised citations. Significantly, GEO had twice the number of publications as Marine Science, with less than half the faculty.

Weaknesses

- Despite the quality of their publications, the department would benefit from raising the number of papers published each year, and seeking to publish papers in the highest quality journal possible. The size of the department clearly impacts its international visibility.

Recommendations

- Based on the published bibliometrics, GEO is a relatively strong department at UGOT, competitive with other Scandinavian geoscience departments in the quality of their work. **GEO has the potential to become one of UGOT's most highly-ranked departments and is therefore deserving of greater university resources, and additional faculty positions.** But, it can't rise to greater international visibility and competitiveness if it remains so small.

D3. Facilities and research infrastructure

Strengths

- The lab facilities we visited (GIS, biogeochemistry (ISOGOT), geochemistry, dendrochronology (GULD)) are state-of-the-art, efficiently furnished and being actively used for research and teaching. The field sites we discussed (Skogaryd Research Catchment SRC and Latnjajaure Field Station close to Abisko) are part of national (BECC, SITES) and international (ICOS) projects and thus well-instrumented to provide long-term series of relevant data. Lab facilities are the entry point for many scientific collaborations, particularly if unique equipment is present (e.g. Raman microscope, Scanning Electron Microscope SEM) or automated analyses can be performed (e.g. nutrient or water analyses).
- Overall, there is no lack of instrumentation and the department offers small grants for repairs and replacement. There are ongoing discussions on how to link the facilities better to teaching programmes, but that will only be possible with additional technical help.

Weaknesses

- Although the analytical infrastructure is very good, technical support to run and maintain the analytical and computational infrastructure is not. GEO has

only two lab and two field technicians (some part-time). Some technical responsibilities are specific to the research engineers, but they are asked to assume other tasks, and the department also turns to its PhD students, postdocs and senior lecturers for technical support. This lack of technical support restricts the efficiency of research and greatly reduces opportunity for external collaborations, which negatively impacts the visibility and reputation of GEO and UGOT. With the retirement of Dr. Klemedtsson, UGOT leadership and management of BECC, SITES and ICOS is tenuous. A departmental and university strategy for Dr. Klemedtsson's successor and how (s)he can maintain a leading role at these sites must be a top priority, as it is one of the most productive and visible contributions of the department. The discussion on user fees for various laboratories (except ISOGOT) has only just started. User fees may be able to contribute to maintenance costs and technician salaries, but the university must also recognise its role in supporting the sites and labs that enable it to compete internationally.

Recommendations

- The laboratories and field stations are generally excellent. The panel was impressed by the available space in the labs, and the state-of-the-art facilities. There are clearly excellent opportunities to leverage these laboratories to help develop geochemistry and dendrochronology as a central research theme and to attract international, regional and interdepartmental collaborators.
- **An integrative GEO strategy is needed for developing the department's rich infrastructure to benefit its scientific footprint, to enrich its teaching and to plan for infrastructure maintenance.** That kind of leveraging is necessary to broaden the base of support for the infrastructure, and to keep the costs of maintaining it manageable. Few individual PIs can support the entire costs of their laboratories on their research grants alone. The university level must also share responsibility for maintaining these labs/sites, as they are fundamental to the success of this department and to UGOT's status as a research university. **Technical support is urgently needed to make best use of the instrumentation and infrastructure available and is one opportunity to increase university support.**

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- Creating equal opportunities for women was a top priority for the department in RED10. The department is very aware of the gender imbalance and has sought to correct it by actively reaching out to women who might be potential candidates for their open positions, and by increasing its mentoring of women scientists and promoting networking opportunities. During the period covered by RED19, the department supported two women Senior Lecturers with research time and mentoring. These two women were promoted to professor). There is a good gender balance among postdocs and PhD students, over which the department has significant control in hiring. The balance is much worse at

the faculty rank (Senior Lecturers, Professors), where university policies also impact the hiring.

- On the positive side, Sweden has very generous family leave policies which support young families and protect young scientists as they move into and out of the workplace.

Weaknesses

- GEO has a gender imbalance at higher academic positions. The gender distribution is not consistent with the ~45% of women in the PhD programme (similar distributions in Europe and the US) and the cohort of postdocs. The department made specific efforts to identify and recruit female candidates for their recent Senior Lecturer hires (one in four hires were women). The absence of other female Professors and Lecturers was noted by women in these ranks, as well as Researchers. We identified three issues which may be contributing factors:
 1. Although women candidates have been identified by the department, these candidates are not ranked highly by external reviewers or by the Faculty Appointment Board.
 2. National or university policies designed to assure equal opportunity may be having an unintended deleterious effect.
 3. Dual career couples seem to be greatly disadvantaged by Swedish hiring policies, which will make it difficult for Sweden to compete for many top international candidates. A large number of women with PhDs marry a person at the same educational level and, elsewhere, universities and companies are having to make significant efforts to arrange dual career opportunities in order to recruit and retain top female candidates.
- During our discussions, the panel heard women comment on being asked to serve on too many committees and boards, where they could add to the diversity. This is a common trap for women working in male-dominated circumstances, as it can dominate their time and leave them with less opportunity for research. One person commented that women may not be listened to as closely as others.

Recommendations

- The department and faculty must actively protect women staff from too many assignments where their participation simply adds diversity. They must also be vigilant of and directly address sexist behaviour or unconscious bias, which can lead to an unproductive environment for women. **The faculty should assure that the department has a clear voice on final selection of new hires.**

D4.2 Internationalisation

Strengths

- Earth Sciences is, by its nature, a discipline that tends to draw researchers into work at research sites across the globe. Not surprisingly, the department has done well in raising the international face of the department, with its faculty, its recent Senior Lecturer hires, and PhD students. The decision to co-fund PhD students on external grants has especially benefitted internationalisation

of its graduate programme, enabling faculty to recruit top graduate students from overseas. The faculty's sabbatical programme has enabled researchers to strengthen international visibility and collaborations. Multiple postdocs are benefitting from the Formas Mobility Grants. The department is participating in a recent UNESCO initiative, "Third Pole Environment", enabling it to bring in foreign visitors at ranks from student to professor, including a distinguished visiting scientist.

Weaknesses

- There are still quite a few people in the research and postdoc ranks who have been at UGOT for a significant part of their career, and/or in the Gothenburg area for much of their life. Many of these candidates expressed hope for a UGOT position. Such positions are becoming increasingly unavailable due to policy changes, and the panel is concerned that these researchers are not considering their options fully.

Recommendations

- Internationalisation is generally an area of strength for the department, which should continue to encourage proposals to enabling programmes such as the mobility grants. The department and university have an explicit obligation to be direct with employees that jobs will be competed internationally, so that expectations are managed.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Last year, the department made the decision to co-finance PhD salaries for externally funded projects for grant proposals submitted in 2018 and 2019. The terms of the co-funding are generous and represent a significant commitment of departmental resources: 50% co-funding; no more than one student per researcher. This initiative brought immediate positive impact to the department, by providing additional research time and resources to PIs (i.e., increased research productivity), and allowing the recruitment of additional PhD students (four per year, rather than 0–1). A larger PhD programme will raise the research profile of the department and improve the quality of the graduate experience. Indeed, the PhD students that spoke to the panel specifically addressed the increased "research atmosphere" brought by the much greater size of the cohort. Continuation of this initiative is dependent on funding priorities and will have to be re-evaluated after 2019.
- In general, the staff members are satisfied with the level of internal research support. The department has invested substantially in high-quality laboratories (especially microgeochemistry, biogeochemistry, GIS, and the tree ring lab) and

this support has been important for maintaining and developing some of the most successful subject fields in the department.

Weaknesses

- Budget allotments to departments are relatively static and do not generally reflect recent performance or strategic needs.

Recommendations

- It is important for the department to commit the bulk of its resources to support strategic needs and directions, once those are defined.

E2. Faculty and University-wide support

Strengths

- UGOT has supported departmental staff in the development of experimental terrestrial ecosystem field stations. The station infrastructure itself has been largely supported as part of a national field site infrastructure, with departmental, faculty and university funding to support the initiation of research at the sites. That funding has allowed the development of a strong research link to SITES, the Swedish nationally-coordinated terrestrial research infrastructure and, more recently, to ICOS RI, a European research infrastructure, the Integrated Carbon Observation System. UGOT participation in these infrastructure networks ties these researchers to an international network of researchers and can support a wide variety of graduate and postgraduate research projects.
- UGOT hosts a Grants and Innovation Office, which provides administrative and budgeting support to researchers. For the most part, the services of the office are focused on the development of proposals or participation in large multinational efforts, which is appropriate. Postdocs and other young researchers noted that the office and the faculty have supported courses in writing a more competitive grant and similar skills development, giving very positive feedback about that university effort.
- UGOT recently invested SEK 300 million in six multidisciplinary research centres, which focus on defined global societal challenges (e.g., Antibiotic Resistance). Such bold investment is necessary to significantly boost multidisciplinary research at UGOT and to lift the visibility of the university in these “hot” scientific topics. At least one young Earth Science researcher has been able to access research funding associated with these challenges. The bold investment in the UGOT Challenges centres is useful to drive departments towards the increasing multidisciplinary approaches required by global challenges.
- There is university support for attractive start-up packages to attract top external candidates for Senior Lecturer and Professor positions.

Weaknesses

- Generally, the faculty holds back little in funding that can be used to stimulate research. For example, there is no holdback of funds to support annual competition for instrumentation, etc., which might enable a department to move

into new areas of research or to jump-start exciting research not supported by start-up funding, or not wholly supported by external funding. The ability to leverage university resources is very inviting for granting agencies.

Recommendations

- The panel recommends that the university and faculty reserve funds that can be awarded competitively for instrumentation or as institutional “matches” to external grants. Clearly, the faculty can use the terms of that funding to encourage alignment with larger goals, such as interdisciplinary research.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The RED10 recommendations for the Department of Earth Sciences focused primarily on the organisation of the department. They observed that the department was small and consisted of several disparate entities rather than a coherent whole. They recommended substantial restructuring to develop core strengths of the department, strategically aligned with UGOT strengths in marine and environmental sciences, in order to create groups with a critical mass that could gain international standing. Specifically, they suggested:

- Strengthening the marine discipline as one of the university highlights, by addition of new staff and infrastructure (e.g., a new research vessel);
- Better integration of disciplines spread across several departments by developing a larger school or department drawing together: geology (including Quaternary geology), atmosphere and climate, geoengineering, marine and polar sciences.

The RED19 panel observes that only half of these recommendations were met, by the creation of the Department of Marine Sciences. The creation of this new department involved moving 40% of the professors (from 10 to six) and ~30% of GEO staff with no compensatory support directed to the rebuilding of GEO, leaving it very small. The panel tried to raise specific questions to the faculty: Why had they neglected to rebuild the GEO department? Was this on purpose or a case of (maybe not so benign) neglect? Were they waiting for a strategic plan? Did they intend the department to fail? We did not receive individual time to pursue these questions, but were able to pursue these a bit in the panel chair’s subsequent meeting with the faculty. The answer is apparently that there is no bad intent in leaving the department so small, but a lack of will to make changes in the distribution of positions or resources that would enable them to address the collateral damage imposed by their decision to create and promote Marine Sciences.

Despite their size, the department is competitive in terms of the quality of their publications relative to the peer universities (top or second for % highly cited or

normalised citations) and other UGOT science departments. They continue to attract external funding at a per capita rate that is on par or better than other departments in the faculty and the department external funding is on a positive trend. It is simply small, and as such less visible, such that it cannot compete in overall rankings with much larger Earth Science departments in Sweden (Lund, Uppsala) or on an international stage for the status. Their publications are high quality, but the total number of publications is significantly smaller and so have less cumulative impact.

The department tried to respond to the RED10 suggestion to form a “stringent new structure” by organising itself into three subject areas. Those areas were formally dissolved in 2018, but the longstanding division into Geology and Physical Geography continues in the degree programmes, coursework and how the research groups are loosely organised. The panel observes that this structure is no longer beneficial to the department, as it reinforces artificial separations in an already small group. Regardless of its size, we encourage the department to identify themselves only as Earth Sciences, and reorganise around several scientific grand challenges in Earth Sciences, or no more than three themes which can draw together all of the department’s researchers. This kind of “thematic” identification will emphasise scientific ties between groups and is meant to drive an integrative approach, rather than a divisive one. It may also improve student recruitment, as many current young people are attracted by the opportunity to solve important problems and to inter/multidisciplinary work, whereas the disciplinary areas of “Geology” and “Geography” hold little interest.

The university/faculty is encouraged to address the RED10, and now RED19, suggestion to increase investment in this department, by increasing the number of professors to the extent possible, but at least to support regrowth to their previous size (10 professors). That would increase their size to be on par with Stockholm University (nine professors) and Lund (11 professors), though still leave it much smaller than the integrated Earth, Atmosphere and Marine Sciences Department at Uppsala (22).

F2. Other matters

In their self-evaluation, GEO notes that Earth Sciences, broadly written, are of central importance to understanding and addressing looming societal challenges resulting from global climate change impacts. The panel wholeheartedly agrees. The spatial context of geosciences allows important linkages to the human landscape and will figure prominently in impacts and mitigation strategies. In fact, the looming challenges are stubborn and complex and will require close integration of researchers across many disciplines. UGOT Challenges represented a bold step by the UGOT leadership to realise the university as a natural place to lead actions in pursuit of solutions to our most difficult societal challenges. Some would argue that this will be the true societal value of universities in the coming century.

In our report, we have challenged the department to throw out a worn and dividing structure and to rebuild themselves aligned with modern challenges. They cannot undertake that step alone. The faculty and university must similarly consider changes, perhaps some radical, to support a modern educational environment that can compete prominently on the world or European stage. The university and faculty must spark and incentivise a long-term commitment to creative, interdisciplinary research across the many disciplines present in the faculty / university. The distribution of block funding and faculty positions cannot remain status quo, but should be reconsidered, in the light of these new challenges, to proactively move traditional programmes towards their modern manifestation. UGOT figured very prominently in the SDGS rankings last year, but this appeared to be due in large part to the visibility of the UGOT Challenge centres. Clearly, new thinking and new academic structures are the step to the future. The university leadership should move boldly forward, rather than remain hostage to old guidelines and approaches.

CONCLUDING RECOMMENDATIONS

The Department of Earth Sciences at UGOT has many positive aspects: there are faculty actively seeking and receiving external research grants and publishing in top journals, the department has excellent laboratories and is host to important field sites, and the leadership is thoughtful and looking to the future. Still, important challenges are keeping the department from reaching its potential and being competitive with other Scandinavian research universities. Some of these challenges must be addressed by the department, others will require attention and investment from the faculty and university. The panel recommendations are:

1. **Restructure the department around modern research themes/challenges to drive intra- and extra-departmental synergies to improve the visibility of departmental research and create a more attractive programme for students at all levels.** The structure and academic culture of the department is fragmented, driven by teaching requirements rather than research strengths, and counter-productive to becoming a strong department with a vibrant student population at all levels. Our top recommendation is for the department to identify a few thematic focus areas/grand challenges which bring all of its research groups together under a larger, simpler umbrella. Reorganisation would strengthen the department's research position, increase its international scientific visibility and, finally, delete the vestiges of former structures and fragmentation. It is the opinion of the panel that continuing to support a loosely connected department of individual PIs without identifiable synergies will doom this department to being a technically good, but a largely undistinguished department.
2. **Restructuring as described above will require overcoming two significant obstacles:**
 - a. **Faculty display a lack of departmental spirit and comprehension for *departmental and institutional* needs, rather than individual needs.** This

pervasive mind-set is counterproductive and out of step with modern research requirements. A departmental strategy is needed that unites the individual groups in research and creates a departmental spirit beyond teaching.

- b. **The current degree programmes are divided along older disciplinary separations (geology, geography) that are not appealing to current students, and the department is simply too small to offer a meaningful programme of courses traditionally aligned with those degrees.** The result is fragmentation and increased pressure to teach a lot of courses that are not well aligned with departmental goals. The department faculty determine the programmes and the courses. **Therefore, we strongly encourage them, when they realign and rename their research themes and strategy, to implement a simpler teaching and degree programme that is better aligned with their research interests, and that focuses students on global challenges, rather than arbitrary disciplines.** Consider merging the two Earth Sciences and Geography programmes into a single Earth Science programme, promoting a basic skill set that is useful to address issues across the thematic elements.
3. **The Department of Earth Sciences is one of the top performing natural science departments at UGOT, but is far too small to compete regionally or internationally. The university/ faculty is strongly encouraged to support regrowth to its former size (10 professors).** In 2015, University restructuring (that created a new Department of Marine Sciences) reduced GEO professors from 10 to six, and one-third of the staff also moved to the new department. Since this restructuring, the university has taken no action to rebuild GEO, which remains at six professors. This has made GEO the smallest Earth Science department, by far, of the Swedish broad research universities, simply too small to gain the reputation and visibility that will allow GEO to flourish.
4. **The department lacks technical staff to help them gain maximum research advantage from their excellent research infrastructure.** A lack of technicians significantly impacts research productivity, and the PhD students and postdocs raised this as a limiting factor in their research. An integrative GEO strategy is needed for developing the department's rich infrastructure to benefit its scientific footprint, to enrich its teaching, and to plan for infrastructure maintenance.
5. **The department and faculty need an immediate succession plan for Prof. Leif Klemedtsson.** Dr. Klemedtsson is the UGOT PI for large national and international consortia and is responsible for their core infrastructure. His research area is a keystone in collaborative research on climate change impacts. The infrastructure investment that has been made in these sites is irreplaceable, and the strength of Dr. Klemedtsson's research profile, as well as his familiarity with the funding systems for these sites, has been very important to the department's research profile.

DEPARTMENT OF MARINE SCIENCES

410	Introductory Remarks
410	Section A – Background and Research Standing
410	A1. Background
413	A2. Research standing
415	Section B – Leadership
415	B1. Leadership
417	B2. Recruitment
418	B3. Career structure
420	B4. Funding
422	B5. Feedback and evaluation
422	Section C – Complete Academic Environment
422	C1. Collaboration
423	C2. Relevance and impact on society
424	C3. Research-teaching linkages
427	Section D – Academic Culture
427	D1. Academic culture
428	D2. Publication
429	D3. Facilities and research infrastructure
430	D4. Transverse perspectives
430	Section E – Support
430	E1. Internal research support
431	E2. Faculty and University-wide support
431	Section F – Other Matters
431	F1. RED10 evaluation
431	F2. Other matters
432	Concluding Recommendations

INTRODUCTORY REMARKS

All three panellists were from outside the Scandinavian academic system. The sum of the scientific backgrounds of each panellist spanned most of the disciplinary spectrum represented in the Department of Marine Sciences (henceforth ‘the department’, or ‘DoMS’), including marine biology, chemical ecology, physical oceanography, biogeochemistry, and sedimentology. Each panellist individually evaluated the written materials provided by the University of Gothenburg (UGOT), prepared questions and impressions prior to the site visit, and corresponded as a group through email. Clarification of a subset of topics was requested through the panel chair to the department prior to the site visit and the responses were distributed to all panel members. During the site visit, the panellists discussed their impressions with each other and with DoMS staff during extensive meetings with representatives of DoMS administration, faculty / research staff, and graduate students. The panel resolved uncertainties and differences of opinion as much as possible and prepared an initial draft of a report. The draft report was finalised through email exchanges subsequent to the site visit. The panellists very much appreciated the depth of the written materials and the open communication from DoMS staff members, as well as the hospitality and clear reporting guidelines of UGOT.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Department of Marine Sciences was formed in 2015. The nature of its origin and history provide insights into the faculty – research staff composition, the present research environment, the basis for decisions regarding research directions, interactions between disciplinary subdivisions and between the three campuses composing the department, and the ability of the department to fulfil its potential as an interdisciplinary research unit.

The department is organised around relevant and appropriate research themes: Marine Biology, Marine Chemistry, Marine Cultural Heritage Conservation, Marine Geology and Physical Oceanography. In 2017, personnel numbered approximately 35 research/teaching faculty (32.5 FTE) distributed between: Professors (25), Senior Lecturers (5), Research Associates (2), and Associate Senior Lecturers (3); 41 externally funded research/teaching staff (36.1 FTE); 11 post-doctoral researchers (11 FTE); 24 PhD students (24 FTE); seven administrative staff (7 FTE); six research administrative staff (5 FTE); 24 technical staff (20.6 FTE); and three communication staff (3 FTE). It graduates approximately 20 1st cycle students each year.

The department incorporates marine research efforts located at three distinct campuses: Gothenburg (66% of all staff effort), Kristineberg (6%), and Tjärnö

(28%), and it administratively hosts the Sven Lovén Centre for Marine Infrastructure (SLC), Swedish Centre for Ocean Observing Technology (SCOOT), Centre for Sea and Society (CSS), Swedish Mariculture Research Centre (SWEMARC), and the Linnaeus Centre for Marine Evolutionary Biology (CeMEB).

There are additional organisational bodies with which the department interacts. The Swedish Institute for the Marine Environment is a government organisation with which all universities interact; SIME (HMI) has its head office in Gothenburg. Each university provides the SIME (HMI) with a local node – for UGOT, it's the Centre for Sea and Society which is hosted within the department. HMI compiles/synthesises data and provides recommendations, for example, to other government agencies or policy makers, but does not produce original research.

Overall, the administrative structure of the department and its hosted centres seem to operate efficiently and effectively in the present mode, including the Sven Lovén Centre associated with maintaining and developing marine research infrastructure. The DoMS leadership appears responsive to advisory input from all members of the department on an ongoing basis, which contributes to an overall positive outlook within the department.

The composition of the department and disciplinary distributions largely reflect its recent origin and voluntary recruitment. When, after an initial failed attempt some years earlier, the Faculty Board approved the formation of the department, each faculty member with a marine research emphasis decided on an individual basis whether to join or not. The primary motivations were to support marine science research and education, to provide a “marine” identity, and to strengthen the marine profile of the university, nationally and internationally. Some of the smaller research areas represented – marine chemistry and marine geology – would likely not have survived as such at UGOT if the new department had not been formed.

The current DoMS is an average size within the Faculty of Science, and it is the sense of the department leadership that it is an overall healthy size, with critical mass to be functional and sustainable, that is, it is able to support a diversity of research areas, intellectual activities, and integrated education programmes. There has been some loss of marine science at the Faculty of Science level since 2015 because individuals who stayed with the Department of Biological and Environmental Sciences have retired and been replaced with non-marine researchers.

In principle, the department could be larger in order to achieve either more comprehensive research coverage or to grow relatively small disciplinary areas (e.g., marine geology), but would eventually need to reorganise if the size increased substantially and became unwieldy. Marine geology is subject to a current search for a new lecturer to increase this sub-group to three faculty, which might otherwise fall below critical mass for both research and educational programmes. Exactly how to populate research areas, maintaining disciplinary excellence as well as promoting dynamic interdisciplinary interactions, is recognised by the department

as a critically important challenge and a topic of considerable healthy discussion. When the department first formed, appointments were targeted as one-to-one replacements of retirees within a sub-discipline.

The panel recommends that the department reconsider its initial model of assuring stability by replacing faculty lines in-kind in light of: possible new directions and research opportunities within marine science, the organisational needs associated with incorporating three research sites, and the unique opportunities provided by the department's interdisciplinary nature. The panel also considers the present high ratio of externally funded long-term researchers to permanent UGOT positions as generally undesirable and potentially unstable over the long term.

The department would prefer if all marine research at the university occurred within the DoMS. Although such inclusion is clearly natural and eases collaborations, it is not a necessary requirement for functional interactions at UGOT. Other vehicles for expanding the marine research footprint should also be explored. For example, the department presently has one joint appointment, and the panel feels that it is potentially possible to use that mechanism more effectively to advance intellectual and research growth within the marine sciences and closely related research areas. For joint appointments it's typically expected to have a major and minor affiliation (rather than equally split). Joint or affiliated appointments could be explored to enhance collaborations within the Faculty of Science and between faculties, the latter perhaps taking increased advantage of the broad intellectual umbrella associated with the Centre for Sea and Society. There is, however, uncertainty in the commitment of the university to the Centre for Sea and Society, which requires more predictable support to be optimally effective. The CSS is a potentially critical organisational vehicle for the department and UGOT to tie together basic and applied marine research, public policy, and outreach activities.

Kristineberg is underrepresented in the department, with only one (large) research group led by a professor plus one soft-money researcher located there. However, Kristineberg is part of the Sven Lovén Centre, and has very favourable access to ship/boat and instrumentation infrastructure. It serves as an important resource for the university, as well as national and international research and educational communities. Kristineberg is financially and intellectually vulnerable, and has lost faculty positions due to the Department of Biological and Environmental Sciences replacing retiring Kristineberg faculty with non-marine researchers located in Gothenburg. These redirected appointments have left only three tenured/tenure-track faculty at Kristineberg. Overall, there are risks associated with the small number of scientists at Kristineberg, so if the department affirms its commitment to maintaining the site within its basic and applied research programmes and infrastructure, it must seek mechanisms to protect it. A diversity of support models will need to be considered. In contrast, the Tjärnö site is on firmer footing with regard to overall use by the department, but has only marine biologists. All sub-disciplinary groups are represented in Gothenburg.

Although the diversity and extent of marine research infrastructure is a major strength of UGOT and the DoMS, it is inherently difficult to sustain interactions between physically separated sites. Despite this difficulty, the researchers and faculty report strong collaborations across the three campuses: Gothenburg, Kristineberg, and Tjärnö, particularly within sub-disciplines. DoMS staff members generally value all three sites and the access to diverse and excellent research support infrastructure. The department uses a variety of strategies to promote interactions, including electronic communication and scheduled common meetings across the department: “Departmental Days”, held twice per year to directly introduce faculty, students, and staff otherwise dispersed between the campuses. The distance between the sites, especially to Tjärnö, makes regular exchange, which typically requires overnight stays, costly in terms of both time and economics. The panel recognises the importance of maintaining a thriving research environment at each site, and notes that these sites are extremely valuable for trialling new equipment, oceanographic training, maintaining time series, and for developing new techniques. We make suggestions in later sections about ways in which further interaction between sites might be achieved.

A2. Research standing

The Department of Marine Sciences enjoys a strong research reputation internationally, particularly within the larger marine biology, chemistry, and physical oceanography groups. The ongoing research is relevant and plays to the strengths of the existing faculty and staff, the outstanding infrastructure, and advantageous environmental settings. Research groups are generally productive, publish in competitive international journals and are well-cited, but unevenly so across the department, with a subset of very highly productive individuals and another with less evidence of activity over several years (as measured by per individual publication rates). Consistent with the departmental historical legacy, there is a substantial disparity in the sizes of different research sub-disciplines.

The DoMS leaders are dealing at the individual level with those who are not performing at the expected level; determining the basis for low productivity, setting realistic expectations, and employing tactics such as shifting responsibilities. One means of addressing low productivity for externally funded researchers is to allow positions to terminate due to lack of funds, although this can be disruptive to the fabric of the department. For performance evaluation meetings, it would be productive and trust-building to ensure gender balance in the DoMS leadership present (i.e., both male and female representation as a matter of policy).

The DoMS vision statements outlined goals of being a leading and uniquely broad marine research programme within Sweden and Scandinavia but strategic and focused targets were not given. The marine environment is clearly changing; what new directions can department members pursue that would mark it internationally as the leader in a subset of those areas? Most of the research groups, particularly marine biology, use local ecosystems and local model organisms – a challenge they face is to make these local systems “go-to” systems, internationally, and a

basis for comparison with other systems worldwide. It seems that in some cases, researchers in the department haven't yet sufficiently broadened their research to attract the attention they deserve internationally. These considerations should be incorporated into a strategic plan.

The panel felt that there is a need for vigorous discussion within the department regarding the relative potential for developing international research excellence in different areas, rather than maintaining a status quo approach to faculty appointments. Retirements should be seen in part as a department-wide opportunity for responding to evolving research directions and needs. For example, there is scope for expanding the physical oceanography group size, in terms of maximising investment in outstanding infrastructure such as the AUV, etc. and achieving world-leadership. Sections of the DoMS might benefit from coalescence, for example, the Marine Cultural Heritage group is good and unique but might benefit from closer collaboration with biogeochemistry themes. The voluntary basis for initially forming the department resulted in a challenge to merge separate entities, stabilise, and sustain trust. At present, the department does not intend to make drastic changes to the balance of the different core subjects even though some of the areas are below critical mass. After four years, the department is now more stable, and it is appropriate to have an open discussion focused on strategic planning, hiring, and growth. Although maintaining status quo is one approach, any strategy regarding hiring should reflect explicit consideration of alternative options, for example, whether hiring at the interfaces of multiple areas could be productive, possibly developing integrated research themes, exploring cluster hires, and considering joint appointments as a means of leveraging limited resources. For example, the department currently has several open areas and applicants are asked to describe how they would fit with the priorities of the department. However, the positions are each being filled individually, not as an intellectually cohesive cluster. Some faculty think that cluster hiring around a joint theme would not enable recruitment of the best faculty who can be convinced to move to UGOT. The ultimate decision for the hiring direction is made by the Head of the Department (HoD) but should incorporate broad engagement and inputs from the department. The university should ensure that the hiring process is efficient; long administrative delays can be damaging to departmental morale and the shared sense of progress.

Another way to encourage cross-fertilisation across the areas of the department is to recruit joint PhD students. There is a current offer from the department to fund new PhD positions 50% if the two supervisors are in different areas of the department, but one of these positions remains unfilled.

In developing a possible multi-faceted hiring approach that targets the very best applicants who can blend with DoMS strategic goals, the department should work with other administrative units at UGOT and the Faculty of Science to develop means of responding flexibly and rapidly to varied or unforeseen opportunities (e.g., an applicant at the level of a Nobel Prize winner) while maintaining fair hiring policies.

The existing imbalance between research areas as well as intellectual isolation can result in educational programme problems across the three cycles. PhD students report that they have little contact with researchers in other departments at UGOT – for example, the one geology student is somewhat isolated and is over-assigned teaching. They compensate for the potential isolation through contact with collaborators at other universities. The imbalance among areas also manifests itself in that it feels like they are trying to cover courses in all areas despite a very different number of potential teachers (including PhD students) in each of the areas. For example, an undergraduate student in marine geology must do their honours thesis in the DoMS, not in the Department of Earth Sciences; opportunities for collaboration with other departments in such cases should be explored. The two marine geology professors are over-committed with teaching, which makes them less available for research discussions around the department. There are interactions among students and faculty across the areas of the department; PhD students can access help via their co-supervisors and examiners (dissertation committee members), some of whom are in the department and others are external.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- There is clear division of labour in the department and a formal structure that enables accountability for department leaders and members alike. There are multiple formal means for DoMS staff members to provide input to leaders, and the leadership appears receptive to discussion. The departmental council includes representatives from the spectrum of departmental categories, which in principle provides a diversity of perspective and opinion. There is a tangible salary incentive to acquire research funds, and the departmental leaders appear able to fairly address difficult issues of research productivity when necessary.
- The majority of tenure-track and tenured faculty are at the full professor rank (23 of 29.5 FTEs). This distribution could be a strength, in that there is a large number of faculty who can take on leadership, advisory, and service roles within the department and whose research has reached maturity.

Weaknesses

- Although on the one hand, age and rank demographics can be strengths with respect to leadership, they can also represent a weakness, failing to reflect the demographics of scientists internationally, being top-heavy, and potentially leading to destabilising changes following multiple successive retirements. Concerns about this imbalance are partly alleviated by the hiring in 2018 and 2019 of eight new tenure-track faculty, compensating for past and current retirements. The plan to hire 1–3 new faculty per year in 2021–2016 will help shift demographics but will not grow the department, given retirement plans.

- The physical separation of campuses minimises informal interactions between departmental members and leaders, particularly with the HoD. For team-building purposes, some of the faculty would like to have more in-person time with the HoD, but for practical reasons related to normal administrative commitments (e.g., high-level meetings) the HoD is only minimally available on an informal basis.

Recommendations

- The DoMS should consider various options to phase retirements and provide overlap between older, established researchers and newly appointed ones. Overlap would provide opportunities for mentoring and advisory inputs that might otherwise be abruptly lost to leadership. In addition to traditional emeritus status, part time appointments for fixed periods (e.g., 30% time; 3-year term), might be considered as possible options to encourage renewal of faculty through partial retirement status, while retaining for the DoMS advantages of experience and perspectives of long-term faculty.
- In addition to junior hires designed to invigorate the programme and also shift demographics, a small number of targeted senior hires should be considered if they can help diversify the department, provide new perspectives, and “jump start” new research emphases.
- In order to encourage informal interactions and promote a sense of team spirit, the HoD should consider setting aside a few hours a week, variably scheduled, during which they are available for informal conversation and discussions.

B1.2 Faculty/University level leadership

Strengths

- The Faculty of Science leadership has embraced the RED19 process, which demonstrates an admirable motivation for self-examination and improvement.
- The faculty administration appears open to input from the departments.
- Research support from the Faculty of Science is available and staff are encouraged to take sabbaticals. The sabbatical programme is important and valuable for supporting the arc of faculty careers, enabling them to be exposed to new ideas and approaches, promoting intellectual renewal.

Weaknesses

- Lack of faculty-level strategic plan.
- Lack of predictability for programme or centre support, e.g., funding for CSS.
- Lack of promotion of collaborative programmes across the Faculty of Science.
- What appear to be relatively impermeable barriers between departments (and indeed they are perceived as competitors), discouraging collaborations, joint appointments and shared enterprises.

Recommendations

- In conjunction with the DoMS and other departments, the Faculty of Science should formulate an integrated strategic plan that seeks to promote research efforts both within and between departments.

B2. Recruitment

Strengths

- Eight new tenure-track faculty have been or are being recruited in 2018–2019. Steady faculty renewal is a positive attribute.
- Similarly, the guest professor and postdoctoral programmes bring new ideas to the department and provide opportunities for student training and future career prospects.
- The tenured/tenure-track faculty hired since RED10 have enhanced research productivity (e.g., in the table of publications per faculty); and on average, are bringing up the department. In terms of resources for new faculty, they get a fully funded PhD student and running costs. A new recruit being recruited as a professor received SEK 1.5 million SEK for five years from the Faculty of Science, for purchase of equipment and other operating costs. There is strong core (shared) equipment. Recruitment at the junior faculty level dominates, but occasionally full professors are appointed – for example, the Dean encouraged the recent senior hire via support for that start-up package.
- The Dean is more positive on recruiting at the junior level, in part to promote gender balance.

Weaknesses

- The hiring strategy is “neutral” and designed to maintain the disciplinary status quo, in part to stabilise and avoid conflict within the department. This approach perpetuates historical imbalances rather than looking forward to maximise research potential and targeted excellence.
- The Research Committee members are largely in charge of guiding faculty hiring; and a broader swath of the department’s faculty have not extensively discussed possible hiring strategies.
- Marine geology is operating at below critical mass; some members of the department think that marine chemistry is also too small, given the teaching needs.
- Recruitment appears in some cases to be sluggish and inhibited by overly restrictive bureaucratic procedures.

Recommendations

- An updated hiring and recruitment plan should be incorporated into an integrated strategic plan for the department (and inclusive of the Faculty of Science).
- As noted previously, although maintaining status quo is one approach, any strategy regarding hiring should reflect explicit consideration of alternative options, for example, targeted appointments in key areas to maximise the use of the university’s outstanding infrastructure, strategic appointments in key areas of international research excellence (or potential for the same). Hiring at the interfaces of multiple areas could be productive, possibly developing integrated research themes, exploring cluster hires, and considering joint appointments as a means of leveraging limited resources. The ultimate decision for the hiring direction is made by the Head of the Department but should incorporate broad engagement and inputs from DoMS faculty members. Mechanisms to provide for healthy and constructive input must be explored.

- All avenues to enhance the intellectual vigour of the research programmes in addition to new recruitments should be considered. One approach for increasing impact with existing resources within the department and Faculty of Science is to promote connections and collaborations between departments and with other faculties (e.g., joint or affiliated appointments with Earth Sciences and other departments). This could be done in conjunction with broad research directions targeted within strategic plans at both the department- and Faculty of Science levels. In the case of inter-faculty collaborations, vehicles such as the CSS could be utilised.

B3. Career structure

Strengths

- Merit-based salary increases for researchers and tenure-track faculty are based on productivity in research, teaching, and service.
- Base salary support for tenured/tenure-track faculty is paid by the department as for professors: 50% for research; if they come up with 10% from grants, the department matches with another 10%; for senior lectures it's 45% + 10% + 10%; the remainder is teaching plus other commissions (administrative tasks). A faculty member who has more external grants can pay more of their salary through grants and thus can reduce teaching obligations to a point, although not entirely. These policies promote research efforts.
- The partial (25%) internal funding of doctoral positions is a positive step towards growing the graduate programme. International reputation and visibility will grow with the graduate programme.
- Every lecturer and professor is expected to do at least 10% teaching (in discussion to increase to 15% and possibly up to 20%). 10% teaching = 170 “clock hours” (including preparation time), which is really 45 hours of lecturing, which is about one regular semester-long course in the US system. This load is consistent with the international norm among research-intensive universities for this discipline of up to ~20% teaching time. There is some pressure from the faculty (Dean) to bring in more students to the courses, putting at risk the block funding for education. This is a research-competitive department whose research productivity should not be threatened by increased teaching. The department is committed to teaching; its members are actively engaged in discussions to explore how to meet the teaching expectations and obligations of the university and of students. Courses are team-taught, maximising interdisciplinary integration of course material and ability of teachers to conduct field research. The need to provide both breadth and depth in marine science courses is an area of active discussion within the department.

Weaknesses

- Eleven of 21 professors (Table 5 in Staff Data file) are over the age of 60, indicating unfavourable demographics for DoMS stability and relatively abrupt turnover of faculty in the next 5–10 years. The planned retirement of 11 professors in 2021–2026 will be a drastic change; about half of these are still

active researchers. However, these retirements will also enable a new cohort of tenure-track faculty to be recruited.

- A large proportion of professors received their degrees from UGOT, suggesting a potential for intellectual insularity. This tendency to self-recruit is not necessarily a weakness given the use of international postdoctoral training prior to recruitment at UGOT but deserves scrutiny when hiring.
- The education money coming from the faculty is directed at undergraduate education. There is a tension whereby the university seems to be pressuring the department to do more undergraduate teaching, but the university as a whole has a reputation for being too teaching-oriented to the detriment of research.
- The vulnerability of the soft-money researchers on long-term contracts, whilst a common problem globally, is concerning.
- The number of soft-money researchers should be small, and these individuals should be encouraged to apply for permanent positions at UGOT or elsewhere.
- Is not clear that there is training for researchers (and postdocs) on how to get faculty positions.
- It is not clear that researchers or students have access to independent appraisals and career development mentoring.
- The doctoral programme is very small, with fewer than one current doctoral student for each tenured/tenure-track faculty member. The departmental support for doctoral students (25% for all; 50% for multidisciplinary students) is a positive step.
- One consequence of the small number of PhD students is a lack of continuity between generations of students in passing along practical knowledge, for example, operating analytical instrumentation.
- Although the numbers are small so the statistics are not firm, it is a bad sign that the number of female professors has decreased over the last three years while the number of male professors has increased.

Recommendations

- The department leaders should consider new incentives for early or staged retirement that would utilise the expertise of the senior members of the department, including mentoring of junior members (e.g., the publication and grant reviewing workshops), while simultaneously giving older faculty a route towards phasing out their position, enabling the department to transition more smoothly and promote successful junior faculty.
- It would be helpful to the department to attract additional students to the curriculum, which might involve teaching more courses that students specifically want/need, and/or increasing enrolment in existing courses. Development of additional on-line courses should be considered to increase enrolment and impact.
- The departmental decision to further partially subsidise multidisciplinary PhD positions should increase connections among marine scientists; if this is successful, the department should consider expanding this programme. Additional incentives for faculty to bring in more PhD students should be instituted. In particular, the department should consider providing 50% support for PhD positions to stimulate doubling of the programme. The remainder of support

for growing the doctoral programme will need to come from increased research grant activity or from collaborative graduate training programmes, if such funded programmes exist in Sweden or in the EU. Can the department explore barriers to recruiting more fully or partially self-funded international students? Can industry co-fund students, perhaps in association with infrastructure development such as SCOOT?

- While postdocs are often more productive than PhD students, they do not build the reputation of a department and its faculty to the same degree. A balanced research group with scientists of all career stages is desirable. Making doctoral student advising success a metric for teaching effectiveness, since teaching does not only occur in the classroom, is one way to incentivise such training.

B4. Funding

Strengths

- External research funding in the department is ~ SEK 75 million per year. This is substantial, and the portfolio is relatively well balanced (with more funding from the Swedish Research Council for Sustainable Development (Formas) than the Swedish Research Council (VR), something that could be reconsidered for future directions given the larger total budget of VR and its prestige).
- Advisory training and workshops on getting grants are available at the department.
- Financial data document shows a dramatic increase in research income and expenditure over the last three years.
- The strategy of the department has been to keep departmental overhead low by having a slim administration, which maximises the ability of faculty to use their research funds for research. Of the research block funding from the faculty that comes to the department, 80% is based on a formula calculated from the number of full professors counted in 2013; the other 20% is based on productivity measures involving a balance of publication/citations, grants, and numbers of PhD students.
- There is university and faculty funding for the Sven Lovén Centre, which includes the ship. But there remain (subsidised) usage costs for researchers. The Sven Lovén Centre budget is kept separate from the rest of the department, although the department is responsible. But the department does not have to make up the shortfall directly, and is not part of the research block funding. There was previously a deficit within the Lovén Centre, but this has been balanced now, via specific budgets for each station within the Sven Lovén Centre budget.
- The new ship R/V Skaggerak will differentiate the university from other programmes nationally and internationally if it can be made available for education. The ship and the autonomous vehicle facilities are world-leading and give a huge potential for gaining additional funding.

Weaknesses

- Incentives to apply for external research funding already exist for early-career faculty: without such funding, they cannot be successful, and presumably will

not be tenured. But securing external grants can be as much an art as a science, and pursuing complex grants (e.g., centre-level, multi-investigator, training grants) requires advice from those who have been successful. The department reports: *“While we do have a strategy for how to distribute internal money to teacher salaries, a possible weakness is that the department has not yet established an external funding strategy. While we encourage all research staff to apply for external money, and the success of attracting external funds is an important yearly salary revision criterion, the initiative to write research proposals lies today solely with the PI/research group. This culture has existed at the Faculty of Science for decades. The ambition of the department is to establish an external funding strategy which also includes gender aspects, and ways to enhance incentives to apply for external money and to promote high-quality research further. It is the urgent task of the Committee for Research to suggest how this strategy can be implemented.”* The department is correct to be concerned about this, and, in recognising the problems, is poised to address it.

- As faculty members bring in more research funding, they do not receive more support from the department to manage the additional bureaucratic load including personnel management, financial management, etc. They can no longer employ undergraduates part-time for a period of months on research funds, so basic research tasks are left in the hands of highly paid, highly skilled scientists. Departmental support for long-term researchers is even lower than for tenured/tenure-track faculty (the department doesn't pay their salary). The long-term researchers suffer low morale when being put on notice one year before their funding expires causing a sense of insecurity and not being wanted and a lack of engagement with the long-term vision of the department.
- The new ship needs 200 days of use per year to meet its budget, by a combination of education and research. 100 of those days are expected to come from the department (the rest is expected to come from outside researchers including government and industry), but usage is not expected to be at that level yet according to initial planning.

Recommendations

- Both support and mentoring at multiple levels of researchers' and faculty careers are needed to maximise funding success. The department might consider internal workshops and mock peer-review (“red team”) activities to build early-career faculty success (informal groups already meet to help each other with publications and grants, but this could be more formalised). Mid-career, tenured faculty whose funding is weak need different approaches. It's also important to determine what local factors restrict success – are faculty submitting inferior proposals to do good work? Are faculty unable to access administrative support to efficiently diversify their funding portfolio? Are faculty lacking information about available funding sources? Senior faculty in the department should explore how other universities are solving similar problems and work together to create a supportive community for grantsmanship.
- It would be useful to incorporate the new ship and marine stations into both

national and international educational programmes, providing an additional means of supporting infrastructure while advancing the reputation of UGOT and the department.

- Possible mechanisms consistent with UGOT policy should be explored, allowing less experienced first cycle students to participate in research activities for short periods as paid assistants, deriving important training while contributing to the research enterprise.
- The department (and Faculty of Science) should continue to pro-actively support and encourage staff to seek European Research Council funding at Starter, Consolidator and Advanced stages.

B5. Feedback and evaluation

Strengths

- The systems in place at the departmental level for annual performance and salary review seem appropriate.
- The “visionary days” to share research across disciplines are a good idea.
- There are mechanisms to provide feedback on manuscript and proposal preparation, demonstrating a structure of solid peer-support and collegial interaction.

Weaknesses

- The PhD students reported that the “visionary days” happened once when the department was new, although there are also department days, twice per year, at one of the three sites, for a 1–2 day event with presentations of science, team-building events, administrative information sharing, and social dinner. The students appreciated this very much; however, not everyone attends.
- There is a general need for more informal interactions between the research sites, and also between the departmental leaders and members.

Recommendations

- Retain the “Visionary Days”, and “Department Days”, but augment them with opportunities for informal interactions between departmental leaders and DoMS members.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- This is a very collaborative department, within the university, nationally, and internationally. The two more field-oriented locations of the department attract visitors all year round. CeMEB and other groups within the department are internationally renowned and collaborate with the best scientists across many countries.

Weaknesses

- In general, communication between departments is minimal.
- The PhD students located in Gothenburg use instruments at the Department of Earth Sciences, but information about seminars is not broadly available and there could be more communication between departments. They have the right to access instrumentation in other departments, but don't necessarily know about them.

Recommendations

- The university might maintain and publicise an online list of equipment available across the university, with what it measures, who to contact, how much it would cost per sample, etc.

C1.2 Collaboration with external stakeholders

Strengths

- There appears to be even more of this kind of collaboration than at peer institutions/departments worldwide. Local marine parks, government agencies, and other organisations are well integrated into the research of the department. This kind of engagement likely accounts for (and results from) the high proportion of Formas-funded projects in the department.
- The outstanding infrastructure is a strong basis for interactions with academic and industry research.

Weaknesses

- It is not clear that the potential of the CSS to enhance policy connections and outreach is being fully utilised.

Recommendations

- The department's own idea for sharing knowledge on how to engage in these kinds of partnerships, via internal workshops and meetings, should be adopted.
- Diversification of the support for the Kristineberg station should be emphasised and developed further.
- Industry connections to support and advance mobile infrastructure should be enhanced, and potentially incorporated into the educational programme (PhD support).

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- This is a highly developed and successful aspect of the department.

Recommendations

- Applied research can sometimes subsume more fundamental, hypothesis-driven work, especially when research funding is tight. The department is strong in

both fundamental and applied work, and its leadership and faculty should strive to publicly articulate the relevance of the fundamental research as much as the applied research, even though the public (and perhaps the university) appears to more greatly value the applied outcomes. Without fundamental research, there are rarely successful applied outcomes, in any case, since the basic question-asking informs the applications.

C2.2 Research relevance and impact on society

Strengths

- Many successful research, outreach, and public education programmes exist in the department, and new ones appear to arise regularly. Vigorous outreach and public education programmes are critically important in justifying both basic and applied research support.
- The CSS provides an existing vehicle to promote public outreach, interactions with policy makers, and collaborations across faculties.

Recommendations

- Provide a predictable funding basis for CSS or its functional equivalent.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- The hands-on (lab- and field-based) education programmes in the department are very strong, and connect well to the research mission.
- The honours thesis, 10 weeks full-time, is part of the bachelor's programme and is required for all students. The department keeps a list of project ideas compiled by the lecturers and professors, and the students contact the faculty to join a project. The coordinator of undergraduate thesis projects helps match students with projects as well, including outside the university. The department supports about 20 honours theses per year. Most of the students interact with other group members; they design a proposal and work on the project at one of the three department sites or off-site. If at a research station, they are supported to stay there. They conducted a survey about career outcome: most graduates proceed with a master's degree (80–90%), most at UGOT, which is the only Swedish university to offer a master's in Marine Sciences, which takes two years but has some prerequisites that make it difficult for those with a non-marine background to be admitted (but these prerequisites are under the department's control). The master's programme graduates a similar number of students each year to bachelor degrees. Long term, many go into government (e.g., Swedish Institute for the Marine Environment) or into other aspects of the workforce.
- The department educational programme members are mostly new to their programme management roles and have begun evaluation of the first and second cycle programmes. They are currently considering and revising the bachelor programme and will examine the master's programmes next. They expect to

introduce peer assessment of teaching and enrich opportunities for teachers to learn new teaching approaches. They already use student evaluations of teaching, but would like to increase response rates. They are also considering enhancing support in courses where undergraduate student performance seems to be poor (e.g., math). They are also working on increasing enrolment in their courses which will provide more funding to the department through the block funding for education. These are highly positive efforts.

Weaknesses

- It's not clear that faculty members teaching these courses are adequately compensated for the time they put into teaching. The self-evaluation report suggests that they report a lack of time to innovate and devise new pedagogy.

Recommendations

- There's a possibility of students with bachelor's science degrees from other universities in non-marine fields to use the master's degree in Marine Sciences to pick up the marine knowledge they lack. This might be a source of diversification for their doctoral programme, if students then transition from the master's to the PhD programme. There is also a master's in Physical Oceanography, and an incipient one in Sea and Society.
- It is also recommended that the department explore ways to increase support time to promote innovation and new pedagogy.

C3.2 Doctoral education

Strengths

- The quality of doctoral training and the outcomes for graduates are strong. There are sufficient career options available to accommodate a substantially increased PhD programme.
- There has been a recent increase in numbers of PhD students, though the total remains small.
- Students appear to be well supervised. Students have a main supervisor and one or more associate supervisor(s). Each PhD student has an "examiner" with whom the student meets, sometimes with the advisor. The examiner is available in cases of disagreement.
- Although the department does not compile graduate tracking statistics, it maintains strong connections with PhD graduates. There is apparently a spectrum of career outcomes among graduates. At least half leave academia, for example going to government science jobs and government-run research institutes, and some consulting. Not many go to private sector jobs. The PhD training includes some career development activities, e.g., career day with former graduates in alternative careers. Some remain in academia, often via a postdoc grant from the VR (3–4 recent graduates have had these fellowships to spend two years outside Sweden then one year back in Sweden, but not back to working with a student's former PhD supervisor). The PhD students report that they intend to go abroad for part of their training, for example, as postdocs.

- The majority of doctoral students are supervised by lecturers/professors. In the review period, four of 20 doctoral students are supervised by researchers on long-term contracts (soft-money). All of these researchers are publishing at a high level. It's difficult to get a research grant without recent publications, and since PhD students are employed through grants, all students are supervised by research-active members of the department. (Although the department funds 25–50% of a doctoral student's salary, accounting for the period of time in which students are taking courses, etc.)
- The PhD students had recommendations that they put forward to the previous graduate council (run by the department's faculty) that were acknowledged but then not acted upon (for example, creating consistency in awarding of credits for certain activities; access to certain appropriate courses; contract extensions for those who taught). Turnover among the faculty graduate council set them back, but they are optimistic that the new management of the graduate programme will be open to their concerns.

Weaknesses

- As reported earlier, the doctoral programme is too small to maintain international visibility and create cohesion across research areas based on doctoral student activities. The limitation on growing the PhD programme is funding for PhD students. Each department member can only have one grant at a time from each of the major funding agencies (VR and Formas). Department members are typically not currently supporting more than 1–2 PhD students on the more commercial (applied) projects, even if funded via a government programme. They have ~1 Marie Currie fellow PhD student.
- The department pointed to the lack of independence of doctoral projects from funded research in some cases: doctoral students are essentially “hired” to conduct a project designed by the faculty. This is an international problem, solved only if separate funds (fellowships; graduate training grants; departmental funds) can be used to support doctoral students, enabling more creativity and agency on the part of students.
- The PhD students report that they cannot get the scientific courses they need within the department or even within UGOT; and they end up going abroad for courses or taking courses that do not fit their growing expertise.
- If a student does some teaching, their contract is supposed to be extended accordingly. Such extensions apparently did not always occur in the past but this is being corrected.
- The central level (university / faculty) provides training for PhD students in generic/transferable skills (which could reduce the load on researchers), for example, training in academic writing, presenting talks and posters, career development, etc.; however, communication of these opportunities to students is minimal.
- The PhD students would like more career guidance, especially what options they have after the PhD if they do not stay in academia. They are not aware of a university-level career service.
- Although not a programme weakness, many PhD students have families which makes it more difficult to pursue careers in academia, which typically require several successive moves.

Recommendations

- The department reports that “*The doctoral students at the department have expressed that they want clearer guidelines, valid for all PhD students at the department.*” A doctoral degree should not have a fixed formula; yet balance must be struck between fairness (important) and homogeneity (not appropriate). Students need to adjust to the international norm that not all doctoral degrees are equivalent: if they publish more and establish more collaborations, their degree will have greater value than that of some of their peers. Yet, faculty must hold each other accountable for fair practices; this should be the role of the doctoral student’s dissertation committee and program administrators. We recommend that the graduate council, led by the director of PhD education, take up the challenge of normalising and clearly publicising (e.g., website) norms for such issues as credit for taking courses outside the department; extension of contracts following a teaching assignment; etc.
- The PhD programme should be grown substantially, perhaps eventually doubling in size. Based on the information available, there would be viable jobs for these graduates. Finding training grant support for growing the PhD programme could jump start growth. Hosting graduate courses at the field stations that attract students from other universities could attract applicants to the PhD programme.
- Alternative means of supporting PhD students should be explored, for example, provide 50% internal funding if matching external funding is obtained. Currently about half of the PhD students are non-Swedish, but almost all are employed on research grants in the department. It would be desirable to attract more self-funded or partially-funded PhD students (e.g. China Scholarship Council). Because students must be supported with full social security, a foreign PhD student bringing their own fellowship probably wouldn’t meet Swedish standards for salary and benefits; however, it might be possible to use the provided stipend as part of the student’s funding, and this would still be a net benefit to the department. The Marie Curie ITN programme could fund many PhD students simultaneously, albeit at multiple universities as part of a network.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The department appears to understand the challenges and opportunities inherent with its growth starting from a new department in 2015, and with distribution between three locations. A range of activities to enhance communication, cohesiveness, and a collegiate collaborative atmosphere has been instituted.
- The PhD students understand that the multiple campuses are a strength – they can access infrastructure at each site.
- The new building currently being built for the department is a significant strength, giving the department a shared sense of purpose and direction. It is

to be hoped that this will further enhance the collaboration and collegiate spirit within the department.

Weaknesses

- The distribution of the department between three widely separated sites is both a strength (enhanced infrastructure; research support options) and a weakness: potential for intellectual and social fragmentation.
- Communication and exchange of DoMS faculty and students is inhibited not only by distance but also economics. For example, bench fees are asymmetrical: the research grants of students from Gothenburg with less than 50% appointment at one of the field stations are charged daily fees for being at one of the field stations even if no equipment is accessed. Students located primarily at one of the field stations don't pay to spend time in Gothenburg. This impairs interactions of PhD student interaction with others in the department. The departmental leaders recognise this problem and are addressing it.

Recommendations

- Seek to minimise intellectual and social fragmentation, for example:
 1. Promote exchange between campuses (i.e., no bench fees up to a cut-off). Consider solutions to help support students or researchers? who need to spend more time at a field station but for whom the bench fees are a barrier, especially for extended stays.
 2. Institute a programme of “departmental sabbaticals” through which campus residence could be changed for block periods.
 3. Informal visits by HoD to campuses.

D2. Publication

D2.1 Publication strategy

Strengths

- The department is appropriately considering how best to support research publication efforts across its range of sub-disciplines, consistent with international norms.
- There are plans to hold workshops to share best practices.
- Overall, the department has a strong history of high-impact publications which extends to this day. Early-career faculty members are learning these strategies from their more experienced peers.

Weaknesses

- None were noted, although see sections above on research standing, faculty recruitment, career trajectories, and doctoral programme development.

D2.2 Analysis of bibliometric data

Strengths

- The faculty members in the department publish in internationally recognised journals of high calibre; many of them publish at a high rate. Citation metrics

(as provided by the department) appear strong and show a positive trajectory over the three years the department has existed.

- Good % of papers co-authored with external people.

Weaknesses

- As mentioned earlier under research standing, the recent publication history of the department is heterogeneous.

Recommendations

- Continue incentives for high productivity (salary).
- Nominate colleagues for international awards recognising scholarly productivity and research quality.

D3. Facilities and research infrastructure

Strengths

- The department has a strong, world-class research support infrastructure, especially with respect to seagoing vessels and autonomous instrumentation. It is unusual, globally, for a university to have such cutting-edge facilities and this provides enormous research potential for the department.
- The Kristineberg and Tjärnö locations have, in the past, been considered part of the research infrastructure of the university. However, it's more, or at least equally appropriate, to consider them campuses analogous to the Gothenburg location, each composing both intellectual and infrastructure resources.

Weaknesses

- Although appropriate modern instruments exist, including some in dedicated core facilities maintained financially by the department, PhD students report that there is an insufficient number of technicians in Gothenburg to train students on instrument usage and to maintain them. The students rely on senior students to hand down knowledge, and sometimes there isn't someone who knows so instrument usefulness isn't maximised. There are few technicians in the department who have responsibility for complex instrumentation. Some of the PhD students also expressed need for lower-level support (perhaps some form of undergraduate student assistants) so that they can concentrate on higher-level experiments.
- There is a Sven Lovén Centre infrastructure website where there is information about the ships, boats, and how to book; as well as about scientific instrumentation. But additional scientific equipment in the department needs to be made public on a website. UGOT has a website, under research, for infrastructure, but some existing instruments are not listed there.

Recommendations

- The department includes a very strong multidisciplinary polar research group. The autonomous vehicles groups in particular have made excellent use of international collaborations, for example deploying vehicles from South African, Norwegian, US and Korean research vessels. We note however that Sweden

owns and operates an excellent polar research vessel with ice-breaking capability, the Oden, and we did not hear of its use by the department. We encourage the department to actively seek to use the Oden for future polar research.

- The department and UGOT should make more public which instruments and facilities are accessible to UGOT students and faculty, international researchers, and industrial partners. The SCOOT project, focused currently on the western part of Sweden and with UGOT as host, has a goal to make “mobile” (robotics, moving platforms, glider, ships) infrastructure more generally accessible.

D4. Transverse perspectives

The department understands where it needs to increase efforts to diversify training and hiring practices, and to support existing personnel.

D4.1 Equal opportunities and gender equality

Strengths

- The representation of women within the department is generally high, although the full professor rank still requires more complete integration of women (i.e., to reach ~50%); the senior lecturer rank is also unbalanced but the numbers are small. The department seems to regard gender equality as important and their plan for adding female faculty is appropriate.

Recommendations

- It will be important to plan to utilise the skills of all genders at management level in future.

D4.2 Internationalisation

Strengths

- The department appears reasonably strong on this criterion, at least with respect to co-publication. Although quantitative data were not available, department members intuited that they publish substantially more than 50% of their papers with co-authors located outside of Sweden, so the department is likely bringing up the university average.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The department is improving its success with external research grants – in particular, the period 2015–2017 has seen steady increases. The university and faculty provide appropriate administrative support for applying for funding; this might usefully be extended to technical support once research is funded.

Weaknesses

- None were noted, although see earlier sections about the need to allocate appropriate credit for teaching effort, which would enable more efficient use of research time.

E2. Faculty and University-wide support

Strengths

- The university participates in funding a portion of the research time for faculty in the department via block funding, and supported funding of start-up packages for one newly hired faculty. It also supports research infrastructure, which is a substantial commitment for marine science research. The university's investment in the new ship has been excellent and admirable.

Weaknesses

- The start-up packages for new faculty are almost always 100% borne by the department, not the faculty or the university. This was based on a reorganisation in which the funds were handed down to the departments for local control, but then these funds may become committed to ongoing costs and aren't necessarily saved for start-up packages. The start-up support that the department provides is largely meeting the needs of the new faculty members, but with many faculty hires planned for the next 5–7 years, and fewer options for new equipment purchases supported by organisations like the Wallenberg Foundation, it might be challenging to recruit the best new faculty to the department.

Recommendations

- Understanding that many new faculty members will be recruited in coming years, the department leadership should work strategically with the dean to consider the start-up needs for the future faculty hiring plan, as a whole, rather than proceeding with planning for each hire one at a time.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

One of the university-side goals of RED10 was interdisciplinarity. The establishment of the new Department of Marine Sciences in 2015, which is highly interdisciplinary and interacts internationally across disciplinary boundaries, is one positive outcome since RED10.

Infrastructure for research appears to also have been enhanced since 2010.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

The panel is very impressed with the breadth, depth and international standing of the research within the department. The overall research output is excellent (publications and grant acquisition) and includes internationally cutting-edge research. DoMS research involves collaborations with scientists from around the world. This high level of productivity and impact is particularly creditable given that the department only came together four years ago by melding faculty from several other departments, and also that during this time a disruptive building move has been undertaken.

The infrastructure is outstanding, particularly the two unique marine stations and the marine vehicles (ships, boats and autonomous vehicles). It is highly unusual globally for a university to own and operate such a range of observing technologies, and this offers UGOT an amazing opportunity and potential for future growth on the international stage, for research, teaching and enterprise.

The collegiate and supportive atmosphere within the department came across clearly. A key strength is the people within the department, at all levels. Gender balance is relatively good and improving; the department takes this seriously. We gained the impression of good development of early-career scientists, and a highly motivated cohort of PhD students. The innovative ideas for improving peer-support and communications across the department are good (e.g., colloquium, support for grant submission).

Support from the university and faculty towards the department has been excellent and is much appreciated by the department. Marine sciences is a key and unique area of strength and international profile for the university so this support is warranted and should be continued. The potential for the department to grow and strengthen is large, and it is clearly an exciting time for the department.

Recommendations:

1. **Strategic hiring of new faculty in the Department of Marine Sciences with deliberate distribution across sub-disciplines and the three sites of the department (Kristineberg, Tjärnö, and Gothenburg).** A strategic hiring plan would result in making the department's research and education sustainable for the long term at all three sites of the department and in the sub-disciplines of marine science that play to the strengths of the university. UGOT is internationally renowned for its marine science; this reputation should be protected with targeted faculty hiring, using mechanisms which could include thematic (rather than discipline-based) hiring, hiring at the interface of multiple sub-disciplines, cross-department joint appointments, and/or cluster hiring. The new hiring directions should involve broad input from members of the department, but decided by the professors and lecturers. When the department was established in 2015, it was appropriate to build trust by agreeing that replacements for departing faculty be made conservatively (replacing like with like). However, now that the department is on firm footing, it's time to take more risks and to

set the direction of growth strategically, flexibly, selectively growing critical areas of research with attention to placement of faculty in all three sites of the department. We do not encourage expansion of the already large cohort of long-term, soft-money researchers.

2. Increased communication and interaction:

- a. Clear systems for within-department communication and interaction among the three sites, building cohesion and collaboration, and supporting broad use of the strong shared infrastructure associated with the three sites. We recommend promotion of personnel exchanges, including reconsideration of the bench fees imposed on student visitors to the marine stations; establishment of departmental sabbaticals between all three sites; enhanced utilisation of video conferencing to support department-wide colloquia.
- b. Increased interaction with other departments at UGOT in order to support essential cross-disciplinary DoMS research, such as earth science, climate science, large-scale ocean modelling. Joint or multiple departmental affiliations for faculty members, as mentioned above, would also promote cross-department intellectual and research interactions. We also recommend better publicising of available research infrastructure available across departments, with a more complete listing of equipment and capabilities publicised on the university's website.

3. Solidification of a block funding model from the faculty to the departments, enabling the Department of Marine Sciences to continue to deliver critical contribution to teaching while also supporting vibrant research. The current block funding model separates commitments to research and teaching funding and therefore time spent by faculty on each of these activities. The department teaches a smaller number of students than many other departments, but performs more research than average. The department is encouraged to continue exploring mechanisms to increase the number of students impacted by its courses which would enable a greater proportion of funding to come to the department for time spent teaching, rewarding teachers for the effort their put into their courses. The faculty is encouraged to carefully consider how future changes to the block funding model could impact the department's essential contribution to the research mission of the university.

4. Department-wide coordination of policies and support for PhD students, including strategies to grow the PhD programme. The PhD cohort is strong but small by international standards. The department is encouraged to use its existing departmental funding to support an increased portion (~50%) of the PhD stipend. This would entice PIs to write more PhD students into their grants, knowing that they would have a full match from the department for such stipends. Because the career trajectories of PhD graduates are strong and the quality of the training provided by the department is high, additional graduates produced by a larger cohort would find suitable career positions in

science after their PhD. The department is encouraged to resolve the inconsistencies and uncertainties faced by the existing PhD students, via (a) clear and publicly accessible guidelines including expectations on the students and what the students should expect from the department, and (b) a functioning faculty-led council that supports the graduate programme.

5. Support of research centres and research infrastructure:

- a. There is a need for university-level support of productive research centres that have impacts well beyond the department (e.g., CeMEB and the Centre for Sea and Society). CeMEB has been highly successful with 10 years of external funding, concluding with a positive international review, resulting in marine genomics and evolution becoming a major research strength of the department. Its research productivity continues to be strong, but the centre lacks funding to support meetings and visitors, which we recommend to come from the university. The Centre for Sea and Society is two thirds of the way through a six-year funding period from the university, serving as an umbrella organisation that brings together marine science, social science, and humanities, with impacts on public education and outreach, policy, and societal impacts of research. There is a lack of clarity about the future of this endeavour. This connection between science and society is critical, making appropriate a longer-term financial commitment to this area of emphasis, which could be appealing to foundation or private sponsorship.
- b. The infrastructure available for marine research nationally, internationally, and by private industry, is excellent and should continue to be supported by the university. The current budget and reporting structure, with a manager for each of the three sites (Kristineberg, Tjärnö, and Skagerrak ship) all reporting directly to the Head of Department, is already, after a very short amount of time (1.3 years), functioning better than the previous structure, and should remain unchanged. The department is concerned that overhead will be applied to the Sven Lovén Centre staffing which would make the budget unsustainable; this would be highly problematic and should be avoided.

DEPARTMENT OF MATHEMATICAL SCIENCES

436	Introductory Remarks
436	Section A – Background and Research Standing
436	A1. Background
436	A2. Research standing
437	Section B – Leadership
437	B1. Leadership
437	B2. Recruitment
438	B3. Career structure
438	B4. Funding
439	B5. Feedback and evaluation
439	Section C – Complete Academic Environment
439	C1. Collaboration
439	C2. Relevance and impact on society
440	C3. Research-teaching linkages
440	Section D – Academic Culture
440	D1. Academic culture
441	D2. Publication
441	D3. Facilities and research infrastructure
442	D4. Transverse perspectives
442	Section E – Support
442	E1. Internal research support
443	E2. Faculty and University-wide support
443	Section F – Other Matters
443	F1. RED10 evaluation
443	F2. Other matters
444	Concluding Recommendations

INTRODUCTORY REMARKS

All the panellists participated in the evaluation of the Department of Mathematical Sciences in the 2018 Chalmers Assessment of Research. Hence, we already had from the beginning a rather good idea of how the department operates and knew the overall level of the research. During the site visit we put special emphasis on the benefits of and challenges arising from having two hosts for the department: the University of Gothenburg (UGOT) and Chalmers University of Technology.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department is composed of researchers employed by the two host organisations: UGOT and Chalmers. This is a very rare structure for a department of Mathematical Sciences. From the point of view of the organisation of the department the employer plays no role. The department is composed of three divisions of roughly equal size: Algebra and Geometry, Analysis and Probability Theory, and Applied Mathematics and Statistics. The division structure is mainly for management purposes: there is active research interaction between the different divisions. The move to this structure seems to have had a positive effect. In particular, most of the applied research is now carried out in the division of Applied Mathematics and Statistics. This division contains most of the researchers who are involved in running laboratories and numerical experiments and applying for patents. These people feel that they are now in an environment where their research efforts and needs are well understood. We see no need for changing this division structure but, as we have already pointed out in the evaluation regarding Chalmers, the department should not let the idea of having divisions of roughly equal size to form an obstacle towards further development of the department in case funding for hiring in a specific field were to come available.

A2. Research standing

The research profile of the department is very broad, stretching from deep work on pure mathematics to collaboration with industry. The overall quality of research is clearly above average. Some of the researchers can even be considered world leaders in their respective areas.

In pure mathematics and in mathematical statistics, research is typically run by individual researchers or in small groups. For these researchers a formal research strategy is not a relevant concept and because of the broadness of the department's research profile the only reasonable strategy can be to try to do excellent research. However, there are more focused research groups in the applied areas that build their own research strategies.

The department is making active moves into the AI field, largely in the areas of deep learning and machine learning, driven by the Wallenberg initiative ‘WASP-AI’. This will allow the department to hire several graduate students, a tenure-track assistant professor and a lecturer to work in this area. They are also part of the Chalmers AI Research Centre (CHAIR), which will provide further stimulus for engagement with the Mathematical Sciences. The panel welcomed this effort, but did caution that efforts be made to identify the competitive niche the effort might occupy in a so rapidly growing field.

The current level of research is very high and even maintaining this will require effort. At the moment, some of the very strong researchers only collaborate with people outside the department. The department plans to take this into account in the upcoming hiring processes. The panel agrees with this plan and also with the need of keeping the numbers of graduate students and postdoctoral fellows sufficiently high.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The department is well structured. The new division structure has resulted in a clearer understanding of the role of applied subjects in the department.

B1.2 Faculty/University level leadership

Strengths

- The interaction appears to be good.

Weaknesses

- The requirement that at least half of the members need to be present at all decisions of the Academic Appointments Boards seems sometimes to slow down the process.

Recommendations

- Success in recruitment is crucial for the future of the department and UGOT. It is therefore sensible to allow proxy (alternative) members for the Academic Appointments Board.

B2. Recruitment

Strengths

- The department has a strong reputation and hence the quality of applicants for the graduate student positions or for faculty positions is not a problem. In the

current call, internal funding is applied to ensure that new graduate students will be hired in each division.

Weaknesses

- There is no recruitment strategy at the moment, even though the department is working towards one. The hiring processes sometimes seem to be too slow.

Recommendations

- Be more proactive in hiring: search for attractive candidates and invite them to apply. To avoid a two-class system (teacher vs researcher), it might be better to hire temporary guest lecturers rather than permanent full-time teachers.
- The department should consider providing PhD studentships to faculty members who are either hired as permanent faculty or are tenured from the tenure-track system.

B3. Career structure

Strengths

- The promotion system appears well organised. There is a yearly discussion between the division head and each member of the corresponding division. The system for distributing research time looks fair and functional.

Weaknesses

- Since the number of doctoral students is very low, it is not easy for mid-career researchers to fulfil the supervision requirements towards promotion to professor level.

Recommendations

- Engage with the administration of Chalmers and UGOT to increase the number of internally funded doctoral students. We recommend more use of UGOT sabbatical opportunities.

B4. Funding

Strengths

- The success in obtaining local research funding has been very good, but there have not been many applications for ERC grants. The department helps applicants with grant-writing, which is especially important for junior faculty members.

Weaknesses

- The Swedish Research Council (VR) starting grants are not fully exploited. Perhaps adopt the KTH model.

Recommendations

- Give a teaching reduction to the best proposal writer in the department, and

have this person go critically through all of the applications originating from the unit.

B5. Feedback and evaluation

Strengths

- There is a yearly discussion between the division head and each member of the division. This is done better than at many other similar institutions.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- There is a substantial amount of collaboration with other units of UGOT, with units of Chalmers and with Sahlgrenska University Hospital. The level of and activity in collaboration with other Swedish universities and international research units is high.

C1.2 Collaboration with external stakeholders

Strengths

- The formation of the consulting group has been successful.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- There is a long tradition of offering consultation in applied mathematics and statistics. The department has appointed a vice chair who is in charge of utilisation; cf. the strategic plan of 2017.

C2.2 Research relevance and impact on society

Strengths

- The department has an impressive dossier of collaborations with outside units on sustainable development goals and other issues relevant to society. Furthermore, the members of the department (most notably Olle Häggström) have been active in educating the general public on the existential importance of the sustainability problem.

Recommendations

- See Concluding Recommendations

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- A substantial part of the master's- and doctoral-level education is based on courses that are connected to the research at the department.

Weaknesses

- The topics in the undergraduate curriculum are not so tightly linked to current research in the department. This is not the fault of the department, rather a consequence of the pyramidal structure of theory in mathematics and statistics.

Recommendations

- The department should consider the possibility of offering short, two-month long, "summer research internships" to master's students. Expanded supervision of bachelor's projects is encouraged.

C3.2 Doctoral education

Strengths

- The thesis projects are connected to the high-level research performed at the department.

Weaknesses

- The fact that the department has two hosts makes the structure of doctoral education rather confusing: three research schools at Chalmers and two research subjects with two specialisations at UGOT. The number of doctoral students is low when the quality and quantity of potential supervisors is taken into account.
- The two institutions have different pedagogy requirements; a unified system would be preferable. Several students mentioned that the courses were theoretical, and not practical enough. (A similar statement can be made about the faculty pedagogy requirements.)

Recommendations

- Complete the process towards a joint PhD degree between UGOT and Chalmers in Mathematics and Statistics. The number of doctoral students should be increased. The doctoral students should be given more opportunities for giving practise talks and presentations.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There are several active seminar series and a colloquium. The doctoral students

have also run a seminar. The atmosphere at the department appears very supportive. The department takes issues related to research ethics and misconduct seriously.

Weaknesses

- There is the issue of gender imbalance, but the situation is typical of departments in these fields.

Recommendations

(None.)

D2. Publication

D2.1 Publication strategy

Strengths

- See below

Weaknesses

- There is no publication strategy.

Recommendations

- Complete the work towards a publication strategy.

D2.2 Analysis of bibliometric data

Strengths

- Even though the bibliometric data provided to us was useless, we asked for and received a list of publications originating from the department in 2017. Based on this list, both the quality and quantity is high.

D3. Facilities and research infrastructure

Strengths

- The department has its own library. The computing infrastructure is provided by the Swedish National Infrastructure for Computing (SNIC) via Chalmers' Centre for Computational Science and Engineering (C3SE) and hence this is in good hands.

Weaknesses

- UGOT staff are unable to access some electronic material that is available to Chalmers staff.

Recommendations

- Deal with the e-access issue.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The department takes these issues seriously.

Weaknesses

- No unexpected weaknesses.

Recommendations

- The department should apply for funding from the GENIE project to improve gender equality, e.g. by recruiting more female faculty and doctoral students.

D4.2 Internationalisation

Strengths

- The department is already very international. They have many international collaborations and visitors.
- There is a large number of ERASMUS students arriving from Europe, some of whom stayed on for their master's and PhD degrees, some of whom came back for their PhD degree.

Weaknesses

- Low uptake of sabbatical opportunities among faculty. Very low uptake of ERASMUS opportunities by Swedish students.

Recommendations

- Establish a clear internal system for students and postdocs to apply for travel funds.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The research support appears to be at the expected level and the faculty contribution to administrative support is not too extensive. Administrative assignments are taken into account in the work assignments.

Weaknesses

- The research staff seem to have to do tasks in organising conferences and workshops that could be covered by administrative staff.

Recommendations

(None.)

E2. Faculty and University-wide support

Strengths

- The support from the Grants and Innovation Office seems to be adequate.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The department has broadly followed the recommendations. An active recruitment strategy is still being prepared.

F2. Other matter

The merger of the respective departments from UGOT and Chalmers into the current Department of Mathematical Sciences has been a success story. The positive outcomes in research and graduate-level education are superior to the administrative obstacles sometimes appearing due to having two different host organisations. This status should be maintained.

Successful recruitment is crucial for the future of any department. We agree with the department that these recruitment processes should move as swiftly as possible.

We point out a number of aspects that differ between the two hosts of the department:

- a. UGOT has two levels of faculty (*Lektor, Professor*) whereas Chalmers has four (*Lektor, Docent, Biträdande professor, Professor*). This has led to some difficulties in salary negotiations, in that the Professor positions at the two institutions are of different levels. It is important to find a way to resolve this issue.
- b. There are some differences in hiring and recruitment regulations for the two hosts.
- c. The arrangements for sabbaticals are different, in that UGOT has a sabbatical system, whereas Chalmers does not. (It should be noted that little use seems to be made of sabbatical opportunities.)
- d. The regulations for hiring postdocs differ, in particular with respect to when an applicant must have the PhD awarded.
- e. There are ongoing discussions about the legal issues around the ability of faculty from one institution to examine students from another.
- f. An unintended consequence of negotiations with publishers has resulted in UGOT staff not being able to access e-books that are available to Chalmers staff.
- g. We urge the host institutions to work towards resolution of these issues as fast as possible, as they are likely to influence plans for other departments (such as Physics) to merge.

CONCLUDING RECOMMENDATIONS

We have five broad recommendations:

1. *Complete the Vision, Strategy and Implementation document.* The vision statement need only be brief, in the style of “We aspire to be the best mathematics department in the Nordic countries”. It is helpful to think of the document in these three parts; the first two could form the landing page of your website.
2. *Hiring strategy:*
 - a. *Reconsider the strategy for VR starting grant hires.* We believe that supporting applications from essentially all candidates for VR starting grants is potentially a good strategy. We recognise that this might lead to a competition for tenured positions at the end of the four-year funding period.
 - b. Be more proactive in advertising for PhD and postdoc positions. Proactive searching for suitable candidates at all levels is recommended.
3. *Engage fully with the GENIE project.* In addition to addressing gender equality, it might provide resources to improve salaries of professors, support promotion packages, and perhaps even hire PhD students. Encourage UGOT to develop a similar system. A gender equality statement should appear on the website.
4. *Increase the number of PhD students.* While PhD students can be supported through external funding, this is often a challenge for less applied researchers. We recommend that the department engage with the administration of both UGOT and Chalmers to provide additional institutional support for internally-funded PhD students. (This issue is to be discussed at the faculty level review.)
5. *Increase applications to EU grant schemes.* Given the strengths of the department, this should result in some successful applications, and therefore additional support for postdocs and PhD students.
6. *Increase focus on utilisation.* We believe that the department should increase its efforts to position the mathematical sciences at the centre of societal issues. The theme of “Mathematics and Society” covers many aspects, some of which are nascent in the department. Advertising impact is important, as is an increased effort in outreach. For example, we think further engagement with mathematics undergraduates from the two institutions is desirable. The level of engagement remains to be considered; the US National Science Foundation’s Research Experiences for Undergraduates (REU) programme illustrates some opportunities. Departmental involvement in the Science Festival is excellent.

DEPARTMENT OF PHYSICS

446	Introductory Remarks
446	Section A – Background and Research Standing
446	A1. Background
447	A2. Research standing
449	Section B – Leadership
449	B1. Leadership
450	B2. Recruitment
451	B3. Career structure
452	B4. Funding
453	B5. Feedback and evaluation
453	Section C – Complete Academic Environment
453	C1. Collaboration
454	C2. Relevance and impact on society
455	C3. Research-teaching linkages
456	Section D – Academic Culture
456	D1. Academic culture
457	D2. Publication
458	D3. Facilities and research infrastructure
459	D4. Transverse perspectives
460	Section E – Support
460	E1. Internal research support
461	E2. Faculty and University-wide support
461	Section F – Other Matters
461	F1. RED10 evaluation
462	F2. Other matters
462	Concluding Recommendations

INTRODUCTORY REMARKS

The Department of Physics panel included Professor Cristiane de Morais Smith (Utrecht University), Professor Talat Rahman (University of Central Florida), and Professor LÁrus Thorlaciuss (University of Iceland) who served as panel chair.

Panel members have no formal association with the University of Gothenburg (henceforth UGOT) and no declared conflict of interest.

Terms of reference for department-level panels were provided by the *Research Evaluation for Development 2019* (RED19) Project Group. The stated aim of the evaluation exercise is to “*identify conditions and strategies that foster high-quality research environments that are conducive to the strategic renewal of research*” rather than grading research quality and output. The panel was asked to identify, observe and reflect upon strengths and weaknesses in the research environment.

The panel visited UGOT and the Department of Physics on 1–4 April, 2019. During the site visit the panel met with the Head of Department, the Department Steering Group, the Department Working Group on Research, faculty members leading individual research groups, and representatives of the junior scientific staff (postdoctoral fellows and PhD students). The panel also visited some in-house research facilities.

In advance of the site visit, the panel members received background materials (staff-, financial- and bibliometric data) and a self-evaluation report that was in part based on the background materials. The panel’s conclusions are based on the written materials and on information made available during the site visit.

The panel is unanimous in its findings and recommendations.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Department of Physics at UGOT consists of 80 employees, which includes faculty, administrative and technical support personnel, postdoctoral fellows and PhD students. Faculty members are considered independent PIs who lead their own groups, without being subjected to a rank hierarchy within larger research units. Each PI supervises postdoctoral fellows and PhD students working in their area of expertise, and the group may include technical support personnel as well. The panel is appreciative of this “flat” department structure.

According to the self-evaluation document, strategic issues in the department are handled by a Departmental Board consisting of elected representatives of “*different categories of personnel (faculty, administrative/technical staff and PhD students)*”

which meets once a month. While such a leadership structure would indeed facilitate broad representation in the decision-making process, the panel was surprised to find a lack of transparency in departmental governance. It was also surprising that there was no scheduled meeting of the panel with the Department Board, nor were the names of the elected representatives (to this Board) provided to the panel. On the contrary, the panel was left with the impression that the department would benefit from involvement of elected representatives (from the different personnel categories) with short-term limits (say 1–2 years, on a rolling basis) to ensure that all opinions are heard. Faculty governance can be a powerful tool not just for smooth running of the department but also for steering the department forward in research excellence and global impact.

It is good that the Head of Department seeks advice, on a weekly basis, from a Steering Group on day-to-day affairs concerning teaching and research infrastructure and personnel matters. The panel appreciates the inclusion of a Communications Officer in this group and recommends that the officer be proactive in offering services to faculty members for enhanced branding and publicity of the department. Similarly, the panel was impressed with the efforts of the Research Working Group in defining future research endeavours and directions. To broaden participation and strengthen internal support, the panel recommends that this working group also include elected representatives from the existing research thrusts.

A2. Research standing

Research at the Department of Physics is carried out by 18 research groups, headed by independent PIs. It involves both fundamentals and more applied aspects and covers length scales, from metres to the nano- and atomic scales. It is subdivided into three main strands:

1. Complex Systems and Biophysics (incl. Physics Education),
2. Nanophysics,
3. Atomic, Molecular and Condensed-Matter Physics.

The panel members were able to acquire a clear overview of the research performed at the department from the detailed self-evaluation report received prior to the visit. During the site visit from 1–4 April, all the groups were represented in interviews, and the panel was able to develop a more in-depth view from the presentations and discussions.

The research performed at the department is without any question of top level, with some research groups leading the field worldwide in their respective area. There is a healthy mixture of theory and experiments, and several groups are collaborating actively. There is an atmosphere of cordiality and mutual appreciation, and there seems to be a good ground for nurturing future research. Staff members are involved in several national and international projects, and have been successful in obtaining prestigious grants, including project grants from the Knut and Alice Wallenberg foundation and most recently an ERC Advanced Grant.

However, some points of concern were identified:

First and most important, there are several members of the department who will retire in the near future, and their replacement has to start at the earliest opportunity. It is very important to replace them sequentially and not all at the same time to allow for a smooth transition and to optimise the chances of getting the best available candidates by selecting over a longer period of time. In this context, the panel notes that research at the department is at present rather narrowly focused with important areas of physics missing altogether. While it is clear that a modestly-sized physics department cannot cover all areas of physics, and the gaps are to some extent covered by activities at Chalmers University of Technology, a broad knowledge base and strong expertise across many different fields of physics are important elements in a truly excellent research environment. The relatively large number of positions to be filled in the near future due to retirements offers a unique opportunity for the department to identify new strategic areas and make decisive moves.

Second, the panel was concerned by the low level of female participation in the research activities. Although there are several young female assistant professors, there was not a single active female full professor (the one mentioned in the self-evaluation is only there sporadically, with a very low number of working hours). The panel would like to encourage the department to develop strategies to increase female representation to at least the international level (which is low in any case). Since this is also the aim of many other physics departments around the world, UGOT has to develop special strategies to become more attractive to women in hard-science areas, such as physics. One possibility is to find ways (within the legal framework imposed on recruitment) to attract couples of scientists, since this is not yet very common in Europe, although a long-standing practice in the US.

Third, the panel realised that no serious steps have been taken to involve the entire department in discussions to develop a long-term vision for research. There are tentative plans to organise a “scientific retreat”, but in the opinion of the panel, this should be implemented without delay. It is very important to be as inclusive as possible and ensure that all the research groups have a say in formulating the vision.

Finally, concerning bibliometric measures of research quality, the Department of Physics at UGOT seems to be producing low “numbers” in comparison with other leading Swedish and Nordic universities. Of course, this has to be taken with a grain of salt, as it is difficult and very often unfair to judge creative activities using simply numbers. Panel members were, however, pleased to see that although the numbers are on the low side, the statistics have improved systematically over the last years.

That said, the panel would like to emphasize that the level of international activities was greatly appreciated – there are several collaborations with universities abroad (in and outside Europe), with a fair number of scientists from different

countries visiting the Department of Physics for research collaboration. Another aspect that caught the attention of the panel was the harmonious equilibrium between fundamental physics and applications, as well as outreach. Finally, it was refreshing to see several young groups involving male and female researchers, Swedish and foreigners, theoreticians and experimentalists, joining their expertise and resources to realize top level research. All this has produced a very strong and positive impact on the panel members' view of the Department of Physics at GU.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The relatively small size of the Department of Physics and efficient management structures involving various working groups allow for smooth every day running of department operations.
- A flat organisation, with no formal sub-division into research units, puts the focus on independent PIs and encourages collaboration between faculty members. The resulting collegial atmosphere is frequently cited as a plus by the academic staff.

Weaknesses

- The department is at a critical stage with several imminent retirements; however, no concrete strategy appears to be in place about the direction in which the department would like to go in the coming years.
- Although the department benefits in many ways from having a flat management structure, in reality it functions top-down, as all formal decisions are made by the Head of Department. Members of the Steering Group are hand-selected by the Head as well as the Chair of the Research Working Group (who in turn selects the group members). This presumably extends to the other working groups. The panel appreciates the attention to gender, experience and research-area balance in the selection of group members, but a more representative governing structure can be beneficial in developing a common strategy and acquiring the support of all concerned.

Recommendations

- In view of recent and upcoming retirements, an active department-wide forum is urgently needed to discuss research strategy and develop a hiring plan for the next five to 10 years. The self-evaluation mentions establishing a regular “scientific retreat” in the future. The panel supports this and recommends that it be accomplished as soon as possible.
- A more representative way of selecting members for the department's steering group and working groups would give staff members a stronger voice in depart-

ment governance and a more vested interest in contributing to, and following-up on, strategic plans.

- The department leadership should engage strongly in work towards Vision2030, the university-wide strategy that is to be formulated in 2019–20.

B1.2 Faculty/University level leadership

Strengths

- The Faculty of Science leadership (and by extension the university leadership) takes a decentralised view of research leadership and puts its trust in those who are actively engaged in research to determine the research agenda. This presents an opportunity and a challenge to departments to decide their own future directions in research.
- Department heads have good access to the faculty leadership through regular meetings and workshops intended to foster strategic leadership. Similarly, the chairs of various departmental working groups participate in corresponding working groups at the faculty level.

Weaknesses

- The need for more focused intermediate- and long-term strategic planning appears as a common theme across departments at the faculty, and possibly more widely across the university.

Recommendations

- While the panel agrees with the notion that responsibility for research strategy is best left with the actors directly engaged in research, the faculty leadership could take a more active role in encouraging strategic thinking at the department level and developing opportunities for inter-departmental collaborations.

B2. Recruitment

Strengths

- Several academic openings are foreseeable in the near future and present an opportunity to further strengthen the research portfolio of the department and to venture into new topics of national and international interest.
- Many of the research groups and individual researchers at the department are world-class and should have no problem attracting high-quality PhD students and postdoctoral researchers. This also plays a role in attracting top-class academic staff at more senior levels.
- Sweden provides an attractive social environment that should facilitate recruitment.
- The relatively small size of the department and collegial atmosphere has been an attractive factor in recent successful recruitment.

Weaknesses

- The department does not appear to have a coherent hiring strategy, especially

in view of the imminent retirements of key personnel. This is despite acknowledging in the self-evaluation that recruitment at all levels is the most important challenge for the department in the near future.

- The prospect of significantly increased teaching duties upon promotion to associate professor may deter outstanding young researchers from pursuing an academic career at the department.
- The poor gender balance at the department remains a major problem.

Recommendations

- The department urgently needs to have a broad discussion to decide on a future research strategy and establish a recruitment plan for the next five to 10 years.
- Gender imbalance is a well-known problem in physics internationally. The department has declared it a priority to address the gender issue but with limited success so far. Therefore, the department needs to be more creative and pro-active in its efforts if it is serious about achieving greater diversity in its membership.
- Some recent hires have failed. Excellent candidates were identified and even recruited but the department was then not able to retain them. The department needs to look closely into the underlying causes.

B3. Career structure

Strengths

- There appears to be a clear and transparent career path for academic staff at the university.
- The working environment at the department is generally very good and staff members appear satisfied.
- The limited teaching responsibility of non-tenured faculty is an attractive feature but this may to some extent be counteracted by the prospect of a significant increase in teaching responsibility upon achieving tenure as an associate professor.

Weaknesses

- The panel does not see a good reason to place more teaching responsibility on associate professors (75%) compared to full professors (50%) given that the two groups have similar opportunities for obtaining external funding. However, although the department only finances 25% research time for associate professors, many of them are at a stage in their careers where they have good abilities to attract external funding by which they can finance more research time.

Recommendations

- The department may wish to consider reallocating teaching duties to achieve more parity between associate professors and full professors, while maintaining a reduced teaching responsibility for non-tenured faculty.

B4. Funding

Strengths

- Several research groups at the department have been highly successful in obtaining external funding and are well placed to carry out cutting-edge work.
- Stable department finances contribute to a strong research environment, where the department can help launch new research initiatives, support career development, and provide stop-gap funding to keep research going when external grant proposals go unfunded.
- Providing incoming junior faculty with full financing for a PhD student is a good strategy that can facilitate successful faculty recruitment and contribute positively to career development.
- Providing some financial support to those preparing major grant proposals is a good idea.

Weaknesses

- Associate professors who, for some reason, are unable to obtain external funding face a substantial increase in teaching and or administrative responsibilities, making it harder for them to maintain a high-level of research output. The risk is a downwards spiral in career development that is not in the department's interest.
- The relatively low number of PhD students, already highlighted in the RED10 evaluation, remains a weakness, but the department is putting resources into increased PhD enrolment to address the problem.

Recommendations

- Investing even more department funds in new PhD students can be an effective tool for building a stronger overall research environment. This is an important resource that needs to be divided among research groups in a fair and transparent manner, for instance by establishing a committee to judge requests for department-funded PhD students. Priority is already given to new junior faculty, but another strategically important group is faculty members, who are either between grants or are consistently applying in good faith for external funding.
- Some institutional funding should be reserved to guarantee substantial research time for faculty members who are temporarily unsuccessful in acquiring grants. This opportunity, however, should only be offered when the failed project applications are recognised as excellent.
- The department currently provides a degree of co-financing for postdoctoral researchers and PhD students supported by external funding that is either insufficient to provide a full salary or cover the full duration of an appointment. This is a very useful strategy and the department should look for ways to expand it to supplement other types of external funding, including stipends from foreign sources.

B5. Feedback and evaluation

Strengths

- Annual performance reviews with the Head of Department provide a formal channel for feedback on overall performance and the relatively small size of the department allows for more informal exchanges all through the year.

Weaknesses

- Annual reviews can be very time-consuming and represent a significant administrative load, especially for the Head of Department but also collectively for the staff.
- It is unclear to the panel what form possible follow-up actions would take. For instance, in addition to affecting personal salary increases, can results from the annual review affect success in securing departmental financial support for new research projects?
- The self-evaluation stresses that senior faculty have an important responsibility to act as mentors and coaches for assistant professors, but there seem to be no formal mentoring assignments (the self-evaluation cites concerns about the scientific independence of junior faculty).

Recommendations

- In line with recommendations by the Faculty of Science panel, it seems prudent to assess the quality of current administrative and management procedures with the goal of identifying weaknesses and finding ways for improvement.
- Assigning a mentor to each incoming assistant professor from the senior faculty is likely to facilitate their introduction to the department and career development at the university. Well performed mentorship does not infringe on the independence of the recipient.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Research collaboration is valued in the department and there is good synergy between several different groups, which has led to successful joint grant applications.
- Co-location with Chalmers presents ample opportunity for collaboration in research and teaching, which many UGOT researchers profit from.
- Department members also have numerous active collaborations at the national and international level.

Weaknesses

- The restriction against PhD students on fellowships carrying stipends rather than salaries, as is common in other countries, such as Brazil or China for instance, hampers collaboration with these countries for co-supervision of PhD theses.

Recommendations

- The university could try establishing a policy to allow PhD students to come to Sweden on fellowships and complement foreign funds to provide conditions compatible with local PhD salaries. Such a measure was, for instance, recently introduced at ETH Zurich and seems to be working very successfully.

C1.2 Collaboration with external stakeholders**Strengths**

- There is active collaboration with a variety of external stakeholders, ranging from primary education to industry. The panel was impressed by the number and breadth of activities.

Weaknesses

- There is no reward system at the department or faculty level for most of these activities.

Recommendations

- The department may look for ways to stimulate further engagement with actors outside usual academic circles, ranging from collaboration with industry to public outreach. Serious involvement takes considerable time and effort, and the department is privileged to have members who are able to do it with great expertise. This should be valued and rewarded.

C2. Relevance and impact on society**C2.1 Management and support****Strengths**

- Although the department views its primary mission to be basic science, researchers are encouraged to develop applications of their work. This has led to external grants for applied research and the formation of spin-off companies.

Weaknesses

- The lack of a strategic policy when it comes to developing potential utilisation of research carried out at the department is recognised as a weakness in the self-evaluation report. The Faculty of Science has recently appointed a new working group on utilisation, where the department has a representative, and this may help focus the department's efforts.

Recommendations

- The panel agrees that the working group on research utilisation at the faculty level is a positive development but encourages the department to take the lead rather than follow, drawing on existing experience within the department to identify good practices and successful models for dissemination and utilisation.

C2.2 Research relevance and impact on society

Strengths

- Researchers at the department are actively looking to develop applications with the potential for societal impact.
- The department has a long-standing commitment to interacting with society at large. This includes teacher training and school visits, public lectures, popular interest articles and media appearances by staff members.
- The department participates actively in the annual Gothenburg Science Festival, which attracts a large number of visitors and is one of Europe's leading popular science events.
- The department has recently hired a Communications Officer who should be able to assist researchers in science communication and in the public promotion of research carried out at the department.

Weaknesses

- UGOT leadership has identified the UN Sustainable Development Goals as a major focus for the university as a whole but the department has no active policy in this regard.
- Despite having a Communications Officer, the department does not appear to publicise itself very well, both for recruitment purposes and for broader dissemination of its product.

Recommendations

- The Communications Officer can play an important supportive role in outreach but also needs to work proactively in developing public visibility for the department and its science.
- Systematically identifying, and highlighting, how research activities at the department can contribute to the UN SDGs may open doors to new collaborations across departments and faculties and lead to future funding opportunities.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- The early involvement of students in research and the engagement of research-active faculty in teaching is very positive. Visits by undergraduate students to national labs and other research institutions are also laudable. There is also a good emphasis on maintaining an active learning environment in the classroom.

Weaknesses

- It is unclear if a structured mentoring programme is in place for undergraduate students.

Recommendations

- Establish teaching awards that recognise innovation in teaching strategies that enhance student learning.

C3.2 Doctoral education**Strengths**

- Physics graduate education at UGOT has a strong record and has over the years produced a large number of PhDs who have made their impact in the field. The department continues to provide graduate students ample opportunities to collaborate within the UGOT-Chalmers consortium as well as with a large number of external collaborators of the PhD supervisors.
- The research facilities are top rate, the faculty advisors are recognised leaders in the field and, relatively speaking, PhD students have financial stability. Students also have many opportunities for international travel to participate in workshops and conferences. The panel's conversation with students reflected these realities and found students to be satisfied with their environment.

Weaknesses

- PhD students seldom meet as a group to discuss matters of professional and personal interest.
- Not all PhD students get teaching experience, in particular foreign students who don't have a good command of Swedish.

Recommendations

- Provide students opportunities for professional development and outreach activities through organised channels (see D1. Academic culture).
- All PhD students should be encouraged to be teaching assistants. The department should look for ways to enable incoming foreign PhD students, who do not yet speak Swedish, to participate in teaching.

SECTION D – ACADEMIC CULTURE**D1. Academic culture****Strengths**

- The academic culture is vibrant and is enriched by proximity to Chalmers University of Technology. The Department of Physics at UGOT, together with the Chalmers Departments of Physics, Microtechnology and Nanoscience, and Space, Earth and Environment, forms the Gothenburg Physics Centre, which

encompasses a great variety of topics in physics. The centre involves about 200 professors, 200 researchers with a PhD degree, 140 graduate students, and 550 undergraduate students. Colloquia and courses are organised in collaboration, as well as recruitment of PhD students. The annual Gothenburg Lise Meitner Award is also awarded jointly. Collegiality is emphasised and collaborations stimulated.

Weaknesses

- Although there is a great deal of collaboration within certain research topics, some of the junior scientists that met with the panel indicated that they had limited contact outside of their own research groups. In some cases, they were hardly aware of the research topics of their peers.

Recommendations

- Informal discussions among PhD students working in different areas of the department should be further stimulated. The department could, for instance, support a series of lunch seminars, where PhD students explain their area of research to their peers, to promote cohesion while providing an opportunity to practice oral skills. This should not be their precise research, since it could be too narrow, but an overview of the research area in which they are working. Preferably, these activities would not involve more senior staff but remain fully in the hands of the PhD students (both organisation and participation). There is in fact precisely an activity of this kind, usually at lunch time on Mondays. (However, it is organised by the department and not by the students.)

D2. Publication

D2.1 Publication strategy

Strengths

- The research groups pursue a typical publication strategy for physics, with emphasis on peer-reviewed journal articles and conference proceedings. The department leadership follows up on individual productivity and open access publishing is encouraged.
- There are plans to initiate a discussion concerning open data management. This is timely as progress across many branches of physics (and science in general) relies increasingly on data collected by large collaborations using national and international experimental facilities.

Weaknesses

- The panel has not identified any particular weakness in this area that needs addressing.

Recommendations

- With the scientific community moving in the direction of open access publishing, adequate financing needs to be set aside to cover publication costs. Such funding is already included in grant budgets from many funding agencies but

it is important that publishing in leading open access journals be viable for all research produced at the department, including work not funded by external grants. This issue is appreciated by the department leadership but has yet to be addressed.

D2.2 Analysis of bibliometric data

Strengths

- The self-evaluation states that “...we generally aim at increasing the number of high-impact articles, and we encourage researchers to aim for quality rather than quantity.” While the panel finds this a healthy attitude, it is important to pay attention to bibliometric trends at the department level as one of many indicators of research quality.

Weaknesses

- The background materials provided by the Faculty of Science include bibliometric data from the Web of Science dating back four years (2013–2016), which compares the published output of the Department of Physics at UGOT to physics departments at several prominent Swedish and Nordic universities (Lund, Stockholm, Uppsala, Copenhagen, Helsinki, and Oslo). The comparison is not favourable, with the department being consistently placed last when it comes to MNCS (the averaged normalised number of citations per publication) and PP – top 10% (the proportion of publications, that compared with other publications in the field and in the same year, belong in the 10% most frequently cited). On a more positive note, there was a significant rise in both MNCS and the total annual number of publications produced at the department over the four-year period.

Recommendations

- The panel can only recommend that faculty members keep striving towards high-quality publications. The best strategy for improving bibliometric data in the long term is to develop a research environment that supports high-quality work at the department and the university in general.

D3. Facilities and research infrastructure

Strengths

- There is excellent infrastructure available to all researchers, ranging from well-equipped laboratories to national common facilities (GPF-Laserlab Sweden, PDMS, 3D Printing, etc.).

Weaknesses

- Researchers voiced concern about how long-term funding for the maintenance and operation of major in-house research facilities, including salaries for the necessary technical staff, will be provided.
- It is unclear to the panel how the department allocates laboratory space, for

instance to accommodate growing needs when a group receives major new grant funding. Some of the groups visited by the panel appeared to be already pressing boundaries in terms of available physical space in their labs.

Recommendations

- The department should set aside funding for technical staff to ensure continued utilisation of research infrastructure. Such staff are usually highly skilled and may require in-house training so a recruitment plan should be in place to ensure timely replacement hires.
- Additional space requirements, especially when experimental groups are successful in bringing in major grants, need to be systematically addressed. On the one hand, the department needs to have an ongoing dialogue with the Faculty of Science (or other body that is responsible for housing at the university) concerning future space requirements. On the other hand, it is important to have transparent guidelines for how available laboratory space is allocated.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The department is very supportive of gender and ethnic diversity, as is evident from remarks made by employees whom the panel met, and from the track record of research collaborations and visitors. There is great awareness that more has to be done to attain reasonable gender diversity.

Weaknesses

- Despite the above, the number of women, particularly at the senior level (full professor) is small. Of the few women hired in the recent past did not stay long.

Recommendations

- At this point, tool kits are available for making a workplace more diverse and inclusive, including paying heed to implicit biases that keep us from attaining diversity. For example, the department could determine its baseline vis-à-vis gender diversity and establish some long- and short-term goals to be reached, followed by a plan to attain them. It should be noted that not too far away, and not long ago, the UK benefited from the Athena Swan initiative which helped a good number of physics department hire excellent female physicists. Such an initiative would require the UGOT Physics department to work with other physics departments in Sweden to collectively address the issue of gender equality, much to the benefit of all. In the US, a similar effort, SEA-Change, inspired by Athena Swan, is underway and should be coming out with rubrics that may also be helpful.
- It may also be possible to hire women at an early stage in their career and help them grow professionally, with organic roots in place, through attractive professional development opportunities.

D4.2 Internationalisation

Strengths

- The department is very well connected internationally with collaborations worldwide. There is also a good number of foreign students in the department, although the number could increase substantially. Since the lingua franca among the researchers is English, the department can attract good talent from around the world.

Weaknesses

- The department does not spread the word about the great opportunities that it can provide and the fine infrastructure that it offers to carry out physics research at the highest levels.

Recommendations

- The department can improve its visibility at the international stage through promotion of its offerings and engagement in exchange programmes or even paid student fellowships that would help create an even more vibrant international environment at UGOT Physics.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The ability and willingness to co-finance external grants is an important ingredient in establishing a strong environment for research at the department. This includes extending PhD student positions when external funding falls short of providing for the full four years.
- The department organises an annual internal call for seed grants to get new projects off the ground. This is an excellent initiative that can facilitate the crucial initial steps towards successful external grant applications at a later stage.
- Administrative support is available at the department to help PIs manage their projects, although researchers are expected to handle many tasks themselves. The self-evaluation acknowledges the need for developing better administrative procedures and policies, and this is being worked on.

Weaknesses

- Having academic staff spend time on routine administrative tasks is not cost-effective and detracts from the quality of the research environment.

Recommendations

- Funds need to be set aside to ensure that administrative support at the department does not become sub-critical. It is important to pay attention to the

impact on faculty and junior staff members' research time when changes in administrative support are considered.

- Developing a flexible strategy of “topping up” fellowships that carry stipends to convert them to salaried positions may open up new possibilities for international collaboration involving mobility at the PhD student and postdoctoral level.

E2. Faculty and University-wide support

Strengths

- The co-financing of major external grants, including ERC grants, by the Faculty of Science is crucial for their successful implementation.
- The faculty funds a sabbatical programme for faculty members, which plays an important role in generating external research collaborations and contributes to positive career development.
- The UGOT Grants and Innovation Office provides key support in preparing major grant proposals and negotiating grant agreements. Support for financial management and reporting is also provided, in particular for EU-funded projects.
- Having a centrally provided IT service and library support is an important aspect of the research environment.

Weaknesses

- Co-financing by the faculty is limited to a restricted set of high-profile grant programmes.
- During the site visit, the panel heard concerns from junior researchers about recent changes in library services that adversely affected their access to key research journals.

Recommendations

- Co-financing from the Faculty of Science for smaller grants, for instance some form of matching funds for externally funded PhD positions, could provide leverage towards higher PhD enrolment, which is a key element in enhancing the research environment.
- The department and/or the faculty should take the necessary steps to secure key library resources for all staff members.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The department took the RED10 report seriously with the result that its financial foundations are more secure than they were in 2010. For example, all faculty members now have a secure salary base and do not have to depend on external funding to sustain their livelihood. The end result is that there is more external funding to support graduate students and postdocs.

Overall, the department has progressed in several positive ways. It has maintained its strength in some traditional areas (condensed matter, AMO, surface and nanoscale physics) and established new directions in soft condensed matter, complex systems, etc.

There was also some reconsideration of priorities and in the process all research in astronomy and astrophysics was abolished. This, combined with a pre-existing weakness in subatomic physics, has led to a relatively narrow research focus compared to many physics departments of a similar size.

F2. Other matters

As noted in RED10, the division between physics departments at UGOT and Chalmers is an artificial one. They were one strong department not too long back and their inherent ties bring them together for most practical purposes. To this day, the teaching is shared, as are a good amount of infrastructure and central facilities. The two departments have a lot to gain from having a joint strategic plan and a shared vision of how they can contribute to physics in Gothenburg. Together they can attract strong talent from the country and the world and together they can address issues of gender equity and inclusiveness.

CONCLUDING RECOMMENDATIONS

Overall, the panel is impressed by the research environment at the Department of Physics. As is to be expected, the level of excellence attained by the different research groups varies, but all the groups that were interviewed are engaged in interesting and relevant research and some of the research is truly outstanding on an international level. The panel also noted a high degree of cooperation and synergy between research groups within the department as well as with outside actors. Department finances appear to be sound and the basic research infrastructure compares well with many physics departments at comparable universities. The working environment is good and both the academic staff and junior researchers appear to be largely satisfied. In other words, the fundamentals are in place for a bright future.

In view of this, the panel is concerned by an apparent lack of any concrete vision for the future. Where does the department want to be five years from now? Ten years? Strategic thinking is needed, identifying promising areas for growth, setting priorities for near-future recruitment, etc. The plans should be developed with broad participation to ensure that the staff is maximally invested in their success. Organising faculty retreats focused on future development can be a way to involve the academic staff at large in the formulation and discussion of strategic plans. Having a clear and well formulated local strategy is important if the department is to play a proactive role in setting the agenda for the university as a whole in the context of Vision2030.

Research at the Department of Physics clearly benefits from proximity to, and cooperation with, colleagues at the Department of Physics and the Department of Microtechnology and Nanoscience (MC2) at Chalmers. Being part of the larger Gothenburg Physics Centre presents many opportunities, including when it comes to the successful recruitment of academic staff, but it is important for the department to develop its own brand name. At present, research at the department is rather narrowly focused, with major areas of physics, including most of astrophysics and subatomic physics, missing altogether. It is clear that a modestly-sized physics department cannot cover all areas of physics, and the gaps are to some extent covered by activities at Chalmers, but the relatively large number of positions to be filled in the near future due to retirements offers a unique opportunity for the department to identify new strategic areas and make decisive moves.

Gender imbalance, especially among the higher ranks of academic staff, remains a serious concern and the department needs to take concrete and creative measures to overcome it. The panel observes that the situation has not improved markedly since the RED10 report, which stressed the importance for the Department of Physics to achieve a higher level of gender and ethnic diversity in its membership.

The panel notes that while the relatively flat governing structure of the department is appreciated by the majority of staff members (and it is important to maintain an open and collegial atmosphere), the decision-making processes at the department level could be more transparent and inclusive.

Attracting junior researchers at the postdoctoral and PhD student level is a key factor in promoting research excellence. The department is mindful of this and has invested resources in an effort to increase the number of PhD students. The panel strongly approves of the current policy of providing fully funded PhD positions to help incoming junior faculty members to build their research portfolio. The panel further recommends that department-funded PhD student positions also be made available to more senior faculty members who experience a gap in external funding of their research and are actively seeking grants. Such a policy is to some extent already in place, but it should be made systematic with a fair and transparent allocation procedure. The department could also look for ways to expand on the current co-funding of externally supported PhD students.

**PART II
PANEL REPORTS**

**FACULTY OF
SOCIAL SCIENCES**

FACULTY OF SOCIAL SCIENCES

468	Introductory Remarks
469	Section A – Background and Research Standing
469	A1. Background
471	A2. Research standing
473	Section B – Leadership
473	B1. Leadership
475	B2. Recruitment
476	B3. Career structure
477	B4. Funding
478	B5. Feedback and evaluation
479	Section C – Complete Academic Environment
479	C1. Collaboration
480	C2. Relevance and impact on society
481	C3. Research-teaching linkages
483	Section D – Academic Culture
483	D1. Academic culture
484	D2. Publication strategy
486	D3. Facilities and research infrastructure
486	D4. Transverse perspectives
487	Section E – Support
487	E1. Internal research support
488	E2. University-wide support
488	Section F – Other Matters
488	F1. RED10 evaluation
489	Concluding Recommendations

INTRODUCTORY REMARKS

Chairs: Anne Jerneck & Kerstin Svensson

Members: Patrik Aspers, Klaus Fiedler, Leif Lewin, Elisabeth Sundin, Karin Wahl-Jorgensen.

The panel chairs welcomed all panel members in early March 2019.

Until mid-March, all panel members read, evaluated and commented on the materials and contributed to the review of the self-evaluation from the Faculty of Social Sciences (FSS).

Following that, the panel chairs integrated all comments into a first full draft in preparation of the Gothenburg visit in early April 2019. In parallel, we prepared pertinent questions and themes for the visit to be submitted to the FSS ahead of the visit.

In mid-March, the chairs initiated communication with the contact person at the FSS, Kristian Daneback, and sent our questions to him shortly thereafter.

In Gothenburg, most of the panel members met for an early morning preparatory meeting immediately before the visit to the FSS. All panel members participated in and contributed to the meeting with the FSS. After that meeting, we all summarised our impressions, planned for revisions, and discussed a set of recommendations to be included in the review template.

On the very last day of the Gothenburg visit, we were asked to contribute written input to the feedback session with University Management. Later, we fed some of the text from our preparatory meeting into the final version of our template.

After the University of Gothenburg (UGOT) visit, the chairs drafted a final version that was circulated to the panellists for comments (7–11 April), which were continually incorporated. Following that, we completed the final version of the evaluation report and submitted it to RED19 on 12 April.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Brief comments on the organisation of faculty and structure of leadership:

Overall, the FSS organisation follows the standards of the other five broad research universities in Sweden (Linköping, Lund, Stockholm, Uppsala, and Umeå). But, due to the far-reaching **decentralisation** at UGOT, implemented in 2013, the underlying centres, departments and schools have become increasingly autonomous. This means that decision-making power has been **delegated** directly to Heads of Department. In this respect, UGOT resembles smaller regional universities in Sweden.

The reformed management structure implies that UGOT **combines two types of organisational structures**: collegiality-based leadership and line management. In this respect also, the new organisation at UGOT resembles that of smaller regional universities colleges in Sweden.

In comparison with the other broad research universities, some **functional collegial decision-making bodies** seem to be lacking, and/or have been turned into advisory bodies.

The **division of labour and responsibility** between the leadership group – the dean, pro-dean, and vice-dean – and the faculty board should be clarified. Although it seems to be functioning well, there is scope, and need, for further clarity.

The status of the **advisory committee** on research and research education is also unclear: does it operate according to a proactive agenda and decision-making power, or is it mainly reactive in relation to decisions and initiatives taken by the dean(s)?

The faculty is **organised into centres, departments and schools**. These three labels are at times used interchangeably and more clarity is needed on their varying status, not least since some thematic centres are more clearly integrated into departments than others. For these reasons, and the fact that the **funding** of centres is under review, there is need for more clarity on the **conceptual description** of the FSS organisation.

The descriptive language of the self-evaluation reveals little about the extent to which the faculty (dean) is powerful or on which occasions it (they) can overrule the decisions at the level of departments and schools. From the self-evaluation it is not clear whether there are tensions and conflicts between hierarchy levels. Although the issue of conflict was not raised during the site visits, there is scope to discuss in what type of instances such tensions may create a conflict that calls for some type of action.

[It is also not clear whether the FSS can impose rules that are not compatible with the decision-making structure at centres, departments and schools.]

Considerations/recommendation for how the faculty is organised, and for the structure of the leadership:

Clarity in organisation and leadership: There may be need for more clarity on the function, identity and mission of the faculty and its organisation, both internally and in relation to its centres, departments and schools. The FSS speaks of itself in the plural 'we,' assuming a united body, but it remains unclear whether this refers to the entire FSS, the faculty office or the smaller administrative body, i.e. the leadership group. However, in the actual meeting with the FSS we got the impression that the leadership group acts as a united body (it is 'speaking in the same voice').

There is a tension between the faculty as a body running specific seminars and actively setting research agendas, versus the faculty as an administrative body supporting centres, departments and schools. A third role appears to be in the 'chain of command' to execute decisions from the University Board and Vice-Chancellor. At the site visit, these roles were clarified and the role of the FSS as 'a vessel between layers' was explained.

Rather than comparing itself with other faculties at UGOT and other social science faculties in Sweden, the Faculty should find its own role and goals. During the site visit, we got the impression that the FSS is starting to consider this now, once all administrative routines are in place. One such issue is the new initiative on career planning for PhD candidates.

Issues relating to **education and students** can be handled through a variety of structures and committees. From an outside perspective, we note that there is a Vice-Dean for Education but no Student Dean at the FSS. Hence, there could be more clarity on how the FSS deals with these issues and how it handles student participation. As an example, most British universities now incorporate Deans of Education in the faculty structure to provide a coordinated approach to the student experience. This is also the case, for example, at the FSS at Lund University with one Vice-Dean for Research and one Vice-Dean for Education.

Thoughts on organisation and structure with respect to creating high-quality research:

Broad profile and interdisciplinarity: With its broad profile including centres, departments and schools, the FSS holds a good potential for both disciplinary and interdisciplinary research and for outreach activities. This broad profile should be nurtured, and to this end the FSS would need an explicit ambition for interdisciplinary research and activities to be accompanied by a plan for long-term funding.

In addition, there is a need for more discussion on the role of **interdisciplinary centres**. First, we ask: should they continue to be organised in the same way as when they were set up? Second, should there be a common organisational structure or should there be a variety of forms – and if so, what precisely are these forms? Third, would centres need more support in terms of funding and infrastructure given that several of them study problems and challenges of increasing importance in the context of globalisation and environmental change?

Overall, the research centres appear to be a strength to the university. In the plan for their establishment it is suggested that they may exist for 3 + 3 years. But it is less clear how they may be wound down. More clarity and long-term certainty on this would greatly benefit both the centres themselves and the departments and schools with which they are associated or affiliated. If it is mainly the role of the university leadership to take responsibility for the centres, then the issue of their existence could still be put on the agenda by faculties, such as the FSS.

A2. Research standing

Current aspirations for new research initiatives – relevant and realistic?

Initially, we asked about the research philosophy of the FSS:

What are the **strategies for stimulating** new research initiatives? Is it a task for the faculty, or does the FSS mainly trust initiatives taken at centres, departments and schools? From the self-evaluation and the site visit, we learned that UGOT's focus on AI as a priority area is reflected at the FSS where certain successful initiatives have been taken already. Some further strategic declaration on long-term research goals would be useful. Yet, we realise that this is difficult given that the university level has been slow in giving clear signals on new directions.

Research aspirations are not specified by the FSS in terms of short, medium, or long term. More **strategic decision-making** is needed to plan separately and jointly the following items for these three time horizons: what to aim for at the FSS, how to reach that, and what are the expected challenges? The FSS would need more **explicit decisions** on: aspirations, goals, targets, and visions on the direction of research, the funding needed for that, and the necessary infrastructure.

It is wise to seek to increase **external funding** but there is no explicit strategy for how to do it. The increase in grants by over 30% (2013–2015) is impressive, and things could be learned systematically from this. During the site visit, we learned that there is no explicit plan to **evaluate this success**. The FSS has drawn some conclusions on high-achieving strategies, and this seems to have inspired other departments. Yet, the FSS could **learn more systematically** from it to keep up the high influx of external funding.

It is a good intention to **support young scholars** who attract ERC grants but the support for young scholars **must** go beyond this small group because if not, it might

exacerbate pre-existing inequalities given finite financial resources. In accordance with performance-contingent funding, and for the purpose of strengthening a new promising research generation, the Faculty may be motivated to financially support young scholars who attract prestigious research grants (ex: ERC stating grant, ProFutura, WAF). However, it may be even more practical to support young scholars **who intend to raise** funding in the near future, rather than giving more resources to those who have already received generous funding. We know that the funding to prominent young grant-holders is part of an overall UGOT policy, but the FSS may have to consider if this policy should be matched with extra funding for those who plan to apply.

Given that there is some research capacity in the field at the FSS, it could be wise to focus more **on AI**, as planned for with a workshop and a survey of potential grants and funding opportunities. Yet, more planning and clarity would be needed on how the FSS sees its own particular role within this UGOT initiative, which is already strong at several other universities. It would also be valuable to know how the initiative is discussed generally at the faculty level, and between leading researchers at centres, departments and schools. Hence, focussing on AI as a major interdisciplinary cooperation project is sensible, but is it realistic, given the available capacities and PI expertise? And how does it fit into the wider UGOT initiative?

Given the academic core task of **advising the public and politicians**, the panel appreciates the statement: ‘We believe that it has been increasingly important to stand up for and communicate the academic core values in a time when these are under pressure and are questioned even from some of the world’s most powerful leaders’. However, the aspiration to engage more with society in outreach activities must be better founded in transdisciplinary reasoning and it must become more goal-oriented in the formulation of possible initiatives. The FSS should also clarify the time/budget intended for outreach activities and how to award it in terms of merits for researchers who engage in it. Finally, we ask: is outreach the task of the faculty or the departments – or both? And if both, what is the best division of labour?

To **bridge the gap between academia and society** it is recommended that the FSS follows, for example, how the Department of Political Science organises its annual Policy Dialogue with a large number of Swedish and international stakeholders. The School of Public Administration also organises an annual dialogue between researchers, politicians and civil servants on ‘*Förvaltningshögskolans dag*’. At the same time, we underline that social science, by its very nature, may become ‘too close’ to political power and risk its integrity and critical approach.

Medium-term aspirations and vision for the future (5–10 years) – relevant and convincing?

There are few items here planned for the medium term except for raising more external funding.

We recommend that the FSS declare in a systematic manner how it intends to spend the funding. Will the FSS mainly support research ideas emerging within departments or raised by research centres – or both? Or will the faculty develop its own research agenda?

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Faculty leadership

The role of collegiality at the faculty is unclear now that UGOT has adopted a combination of line-management and collegial decision-making. There is a risk that decision power becomes too ‘managerial’ – involving administrative staff mainly/only – and we thus recommend that **leading scholars are involved in strategic research decisions** at the faculty level. At the site visit we learned that there is appreciation for the faculty leadership, in terms of both control and support.

The new combined organisational model of UGOT seems to play down collegial structures. In addition, the reinstatement of equivalent bodies signals problems and dissatisfaction with the current organisational model of the university – at least as expressed in some departmental **self-evaluations** (e.g. Department of Sociology and Work Science). However, the FSS seems to be at the forefront of safeguarding both a top-down and bottom-up leadership style.

Responsibility and division of labour in research and postgraduate education: Research and education is the core value of Swedish universities according to Högskolelagen. At the FSS, the Pro-Dean is responsible for research and doctoral education, heading a committee meeting regularly and representing all relevant centres, departments and schools. This is accompanied by a structure for extra activities such as bi-annual quality updates. There is a vice-dean with responsibility for education who heads a similar committee. What is the responsibility of **the Dean** – beyond the budget?

The benefits of combining research and research education in the same committee seem to outweigh potential problems, but it may happen at the cost of paying too little attention to research, especially the **strategic planning of a research profile**. One immediate remedy would be to expand the number of committee meetings to include a discussion of research items or to organise the agenda so that it pays more attention to research at some meetings – and education at others. Since it would also be useful to explicitly prioritise research – this could be achieved by appointing a dedicated task and finish group to take ownership of this.

In doing so, we see the need for a **clearer structure** of what ‘**advisory committees**’ entail: are they reactive or are they supposed to be engines of change? Our suggestion is to give researchers more influence. This would make these committees

more attractive, enable them to initiate serious discussion on research, and enable researchers to be more involved in strategic decision-making.

If a big agenda item for FSS is to support junior scholars it would be beneficial to keep **research and education together**, in case strategic decisions are needed for PhD training, and in order to meet the needs and demands at the postdoc level.

Allocation: Funding principles seem to be adequate in terms of keeping low levels of overhead (appropriations) while allocating as much of the government funding as possible directly to departments, etc. Yet, it is still an open question whether 10% is a suitable level. Hence, there is need for further clarification of the funding principles, including co-funding of research programmes and projects. This issue could or should be discussed in a dialogue with centres, departments and schools.

The strategy to distribute as much as possible of the faculty funding to centres, departments and schools is defensible according to distributive justice. But, if all resources are decentralised, the justice norm is equality, not equity. That is, the possibility to receive extra funding for a potentially excellent project is forgone. We therefore suggest that it is wise to keep part of the resources centralised, in order to reward excellent extra activities, applied for in a transparent and just system.

There seems to be good use of appropriations, yet it would be interesting to know more about the support for research excellence: why, for example, are young researchers who receive major grants such as ERC or Wallenberg grants awarded extra funding from the FSS? Could the FSS reroute some of these resources to support young scholars who **intend** to apply for big grants? We know that this is based on a university-level decision, but again, it may be beneficial to consider parallel funding for those who plan to apply, and to ask the university level to take full responsibility for the ERC grants.

Despite learning more about the faculty's co-funding policy during the site visit, the policy was not clear from the self-evaluation alone.

Elections and appointments: We would also like to know how the Dean is appointed/elected.

B1.2 University level leadership

Strengths

- Regular meetings (bi-weekly) between faculty and university levels provide a sound structure for decision-making.

Weaknesses

- It is a real weakness that the university level is slow in reacting to requests and in giving clear policy signals.
- It is interesting that there are separate university-level committees for research

and research education but this structure is not replicated at the faculty level. Could the FSS explain the reason for this?

- The research board meets six times per year but its function is not entirely clear. The same is true of the doctoral education board.

B2. Recruitment

Strengths

- Appropriate structures for recruitment seem to be in place and development work is focused on further uniformity, transparency, and equality in the process.
- The project of observing procedures and processes at LFN (academic appointments board) meetings seems interesting and there is probably good potential to generate useful insights and conclusions from it.
- The review of previous recruitment processes seems to be a worthwhile and interesting task, mainly for statistics including gender equality information. It is also motivated by the fact that some units under the FSS have not followed all expected recruitment procedures.
- It is relevant that the FSS is prepared for the generational shift and plans for long-term strategic recruitment: which staff will be needed to meet certain aspirations, strategic initiatives etc?
- It is good to stress that competence in the Swedish language may matter more at some departments than at others. Language skills may also serve as an important entry point to understanding the university system and to participating in varied outreach activities and, eventually also in leadership positions.

Weaknesses

- Recruitment processes are long and applicants may be lost to other jobs in the process. This is not mentioned in the FSS self-evaluation but it is noted in the self-evaluation from the School of Global Studies, for example. Some units under the FSS have not followed all expected recruitment procedures.
- There is no identified strategy on new recruitments.

Recommendations

Instead of offering recommendations here, we share some reflections and pose a series of questions:

Will you consider how to speed up recruitment processes? Will FSS introduce new procedures for this purpose?

In this context, it is worthwhile to ask if the FSS can overrule department decisions. It seems that this is not the case unless such a process or decision would violate the law or procedural principles set up by the university for guaranteeing open, ethical and transparent processes. [Yet, we advise that there should be a warning against hasty recruitment of ‘famous names’].

What are the options for UGOT to recruit international scholars to attractive positions, especially at times when a weak exchange rate for the SEK lowers the incentive? Is there a good package for those recruited including salaries – also for doctoral candidates? Do positions guarantee a minimum level of research (*forskningstid inom tjänsten*)? Would it be an option to recruit external experts for a temporary period?

Finally, we ask: is there a need to think more systematically about the challenges of internationalisation in recruitment and formulate broader internationalisation strategies? We see this as a potential part of a new international strategy.

Is the percentage of international applicants and their success in obtaining jobs known?

B3. Career structure

Strengths

- The regular meetings with doctoral candidates are a good initiative and so is the plan to discuss potential career steps at several stages during the doctoral process with supervisors and PhD candidates.

Weaknesses

- The FSS has no clear and transparent plan for career structure.
- The policy of co-funding is a national policy for ERC (and similar) projects. It helps cover OH for researchers who attract prestigious grants but in the event of many successful proposals, it may tie up large funds in particular projects.

Recommendations

- **ERC projects:** We recommend that the **extra funding for ERC projects** be provided by the university level rather than by the faculty level.
- **Research time:** We recommend a guaranteed minimum level of research within a lecturer position = *forskningstid inom tjänsten*. This is important both for the individual researchers and for making sure that all education at UGOT is research-based. It is also an advantage in the recruitment process if time for research is well-defined.
- The infrastructure for career planning, not least beyond the PhD level, needs to be strengthened to become more forceful, productive and transparent.
- **Career progression:** The FSS promotion policy (as regards associate and full professors) is not made explicit in the self-evaluation. We recommend that you spell this out – and justify it, especially if it matters for the attractiveness of the faculty as an employer. It would also be important to spell out if criteria differ between centres, departments and schools.
- We also recommend that the FSS think strategically about the steps to be taken **to promote career development of junior scholars**, especially at the transitioning stage of becoming a postdoc and, later, for becoming a lecturer. Here we learned that the FSS has started to take action.

- It is a good opportunity for researchers to be able to apply for travel grants from UGOT. However, we recommend that the generous travel policy (including grants) is reconsidered in times of climate change. Could some of these travels be turned into virtual meetings instead?

B4. Funding

Strengths

- The 30% increase in grant income is phenomenal. The FSS should reflect on the main drivers behind this success and learn from it, also with respect to how it can be sustained. Some interesting conclusions have already been drawn but there may be other lessons.
- There are some good co-funding initiatives at the faculty.

Weaknesses

- There is no long-term policy or strategic thinking on funding at the faculty, at least, it is not expressed in the self-evaluation.
- Nor was there any further strategic thinking when the faculty received funding for PhD projects from a particular foundation. Would you need a policy on that in case of new donors? In what way and for what reason is this an issue for the FSS?
- Centres: Interdisciplinary research centres need to 'apply for funding every year, and the faculty board decide the amount'. This principle creates unnecessary uncertainty that may hinder long-term research planning. To use faculty funding in the same way as external funding, i.e. by requesting proposals, and to do so even more frequently than research councils, is questionable.

Recommendations

- We recommend that the FSS direct its thinking on funding policies and principles in more long-term, goal-oriented, and strategical directions. A central question is about who to involve in this process: is it a matter of the current deans (only) or the advisory board on research? Which arenas can develop a long-term strategy to be supported by centres, departments, and schools?
- Reversing the contingency to offer incentives for people who strive for future funding may be a more effective strategy.
- Interdisciplinary research should mainly be supported when it grows naturally from scientific work and if there is common ground for collaboration across disciplinary boundaries.
- We do not see the need for centres to apply for funding on an annual basis as it may restrict the duration of work contracts and various activities. As already mentioned, we recommend that centres, possibly based on a three-year application, be funded for a three-year period.

B5. Feedback and evaluation

Strengths

- Annual dialogues with the leadership at centres, departments and schools provide a useful leadership structure.
- We note that the strict model of giving feedback mainly based on quantitative items is now under reconsideration and we support that revision. We realise that items and issues discussed in RED19 may be helpful to supplement feedback based purely on quantitative measures, especially since there is a variety of ways in which centres, departments and schools can produce high-quality research.

Weaknesses

- The feedback on performance at centres, departments and schools is mainly/only based on quantitative indicators. We have noted that this system favours some centres, departments and schools over others. If the funding depends on annual reports and evaluations this may cause unnecessary stress for researchers.

Recommendations

- We recommend, as the Faculty rightly states, **using the outcome of RED19** as a basis for revisiting existing structures and systems for evaluations, while also establishing a renewed structure for evaluation and feedback. The structure should promote collaboration, vital exchange of ideas, and creative initiatives that have good prospects for success but that are difficult to fund by external means.
- Although it is a national strategy, it is not obvious that UGOT should co-fund externally funded research projects, especially if this puts serious constraints on the opportunity to build new structures and gain additional funding in the future. We recommend that the university level take an initiative to discuss this with the government and main funding agencies.
- **Outreach in Swedish:** Some centres, departments and schools operate under the obligation to communicate in Swedish in a variety of outreach activities directed at various parts of society, such as a range of agencies, authorities, organisations, and the general public. We recommend that the FSS discuss whether these centres, departments and schools are disadvantaged by this time-consuming task, and how /or if/ they should be rewarded for it. There seems to be an increasing call among academic staff to be rewarded for our outreach activities, especially since this *third mission* is obligatory according to national policy.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

It is an open question whether research collaboration is best promoted at the university level, the faculty level, or the department level – or at all three. In case of limited resources, we suggest that it should be prioritised at least at the university and department levels.

Strengths

- Much collaboration is organised at either the university or the department level, or both.
- The faculty provides monetary support, which can be helpful for some units in their collaborative efforts.

Weaknesses

- There is no short/long-term strategy or policy for collaboration – locally, regionally, nationally, or internationally. The issue is that some of the funding could perhaps have been used differently.
- It is also somewhat unclear who is responsible: the departments or the faculty? Where are the ideas developed, where is the action taken, and where are the responses and reflections made?
- The role of the FSS in the university-established research school is unclear. It is known that the Pro-Dean attends monthly meetings and that the FSS conducts the pre-selection of PhD candidates, but it is not known on which grounds and why the FSS does this task, which is normally done at and by departments, which have the capacity to mobilise the necessary scientific competence.

Recommendations

- Collaboration and networking have become effective tools in scientific competition. Indeed, the idea of partner universities might be cultivated, beyond the notion of partners for student exchange. Partner universities abroad may enrich existing research networks, the internationalisation of research, and young scientists' careers. We encourage the establishment of bi-lateral exchange contracts between UGOT and specific universities abroad. The initiatives may arise bottom-up from departments and schools or from individual PIs – or from the FSS.
- With respect to internationalisation priorities, it would be useful to establish formalised partnerships with high-profile universities abroad that have pre-existing relationships with departments at UGOT, accompanied perhaps by small-scale mobility funding administered at the faculty or university level.
- In sum, we recommend that a more pronounced profile on collaboration, including a strategy, would be a strength; indicating with whom to collaborate, for what purpose, on which issues, and on what terms.

C1.2 Collaboration with external stakeholders

Strengths

- Units under the FSS collaborate frequently with a range of stakeholders. For example, the collaboration with *Folkuniversitetet*, which facilitates dialogue with parts of civil society.
- The early ideas and plans for a cultural platform for exchange between UGOT and civil society are interesting and promising, but the intentions and format need more clarity and elaboration: which topics, who in civil society, etc?
- The two VINNOVA projects and the exchange between FSS and non-profit organisations are interesting and require further evaluation and assessment.

Weaknesses

- It is a dilemma that state and society call for increasing collaboration with universities when it is generally not recognised as a merit in academic careers.

Recommendations

- For a better overview, and in preparation of further initiatives, it would be necessary to acknowledge and even systematically document the collaboration that already exists between individuals and groups at the faculty and between them and external stakeholders.
- As an example, the Department of Political Science and the School of Global Studies are both well-known for their international collaboration. Other centres, departments and schools could probably be further stimulated in this direction.
- The role of outreach activities needs to be discussed more thoroughly – for whom is it rewarding, what can be gained/learned for each stakeholder, what are the benefits and burdens?
- As the Faculty mentions, the incentives/rewards for academia/academics have to increase. We therefore recommend that the FSS initiate a discussion on the relative importance of outreach tasks.
- Collaboration should go beyond current already-funded projects. Stakeholders may be invited to suggest future projects.
- The mentioned example of the KOLV-agreement between a number of public organisations in the West Sweden region and the School of Public Administration as a UGOT partner is a special example – with implications also for point C2 below.

C2. Relevance and impact on society

Strengths

- The public lectures, lunch lectures, and after-work sessions with researchers, as well as the series of short videos ('Researchers explain') seem to be a good set of initiatives and activities;
- and so is the plan to organise, develop and lead more social science-oriented outreach activities.

Weaknesses

- There is no overall strategic plan for goals and means in relation to outreach and collaboration.

Recommendations

- The Faculty needs to discuss the **centrality** of outreach and community-wide collaboration at the FSS. We had no time to bring this up at the site visit so there are perhaps some structures in place for this. We have noticed that some centres, departments and schools are establishing such units (e.g. the School of Global Studies).
- The **division of labour** in terms of outreach between the Faculty and centres, departments and schools needs to be clearer. There is scope for collaboration and synergies in order to avoid an overload of outreach activities competing with other tasks at the centres, departments and schools.
- Research-based education is a particular form of outreach that must be recognised as such.
- In parallel with other stakeholder collaboration, and to increase the impact of open and transparent science, we recommend that the FSS consider inviting journalists, politicians and the public to an ongoing/irregular discussion forum. Importantly, popular science and applied and translational science must not be confined to passive reactions to public prompts. It should also include initiatives by scientists who pursue their own ideas about which insights should be popularised. At the site visit, we noticed that some centres, departments and schools have taken such initiatives.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Close interaction between research and teaching is essential. It is equally important that experienced academics and researchers teach at the undergraduate level. Explaining the foundations of a discipline or field are among the most challenging tasks for educators. It is also inspiring for experienced and senior researchers to engage with students who share their fresh ideas. In fact, it is advisable that (also) professors teach at this level.

Strengths

- There is an adequate structure in place for undergraduate and graduate education, such as the interaction between the BFU (Advisory Committee for Undergraduate and Graduate Studies) and the BFF (Advisory Committee for Research and Postgraduate Studies). For obvious reasons, research-teaching linkages must be manifested mainly in the actual teaching at centres, departments and schools, but it is crucial that this interdependence is recognised and supported by the FSS.

Weaknesses

- The interdependence and synergies between research and education are not forcefully emphasised in the FSS self-evaluation.

Recommendations

- We recommend that the FSS support the practice of encouraging prominent and established professors to teach early courses in undergraduate programmes.
- As extra support, and depending on funding, we recommend that the FSS possibly set aside funding for teachers who wish to develop new and explicitly research-based courses.
- To take an example: A decade ago, the Association of Psychological Science (APS) started a campaign to foster the consideration of scientific insights about good learning, informed by well-established evidence on findings such as: memory advantage of self-generated information, test-based learning, spacing effect, feedback and error culture, role of fluency and effort expenditure etc. We suggest that these insights could be used systematically to help shape the instruments for teaching evaluation.

C3.2 Doctoral education

Strengths

- The (high) number of PhD candidates (around 210) has been stable over the last five years.
- The FSS values a vigorous research environment for PhD candidates and actively encourages units under the faculty to use project funding to recruit PhD candidates.
- Recruitment procedures and financing models vary greatly between departments/schools which is an expression of the decentralisation at UGOT and which makes the system flexible. [The recruitment process has been decentralised to centres, departments and schools since 2013].
- A special system is in place for the few faculty-based announcements and procedures, for example when external donors are involved.
- The FSS is in charge of four interfaculty postgraduate courses. It is a productive combination to provide two thematic and two methodology interfaculty courses in postgraduate education.
- The courses are administered by the four departments involved. The benefit of the joint courses is that PhD candidates across disciplinary borders can meet. The challenge is that the selected courses are very expensive.
- The new evaluation system starting in 2020 seems fine (every six years with external panels).

Weaknesses

- The FSS suggests that the costs for interfaculty courses are high.
- Like all other forms of higher education, postgraduate courses should be research-based. It is an open question whether methods courses should be based on students' own research, given that some of them have limited previous experience, for example, of qualitative methods, while others have spent months in the field.
- There is no guarantee that the (high) number of PhD candidates (around 210) under the FSS will continue to be stable in the coming years.

Recommendations

- We recommend that it should be considered equally important to recruit PhD candidates who bring their own ideas – as long as these are aligned with areas of research expertise and interest at the department or school – as to recruit those who fit into existing programmes (and projects).
- We see that there is definitely scope to lower the costs of interfaculty courses. The cost of four courses is declared to be high (900,000 SEK per year) but in fact, most social science-oriented courses (7.5 HEC) can be arranged at much lower costs. Since postgraduate courses are not graded (only pass or fail) the cost of examination should not need to be high, and part of the courses could probably also be turned into peer-teaching. Hence, we recommend that the FSS lower the costs without lowering the quality. At the site visit, we noted that the FSS is moving in this direction.
- We appreciate the valuable initiative to create meeting space for students across disciplines, but in order to cut the cost we suggest that part of the courses be run at the departments and schools themselves. Such a format would also maintain the connection to the discipline (or to interdisciplinarity if that is the focus) and its specific problems, and be tailored to the type and level of knowledge of its students. For doctoral students to be internationally competitive, part of the available resources could also be profitably allocated to new courses focused on research.
- Beyond the thematic courses and the methodology courses, there could perhaps be joint faculty courses on ‘How to make a career in an international and globalised system’ – where PhDs engage with postdocs (and other mentors) to learn from their experiences. At the site visit, we noticed that the FSS is perhaps thinking in that direction – and we support that.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

General research seminars are a core activity serving to strengthen academic culture.

Strengths

- One main task for faculties is to contribute to fostering a vigorous academic culture. In line with that, it is laudable that the Faculty has prioritised the strengthening of an interdisciplinary research culture. The organisation of a faculty-level doctoral course on research ethics in social sciences also seems to be a promising model for increased exchange between disciplines.
- There is an interdisciplinary initiative across the FSS on AI with meetings organised for August and September 2019. Yet, the intentions underpinning this initiative require more clarification. Since AI seems to be a university-level initiative, the FSS could make this clear in the description of the activities that the faculty is planning to organise around this theme.

- The FSS supports the Faculty-level doctoral committee in its Faculty-wide activities and thematic seminars.
- We noted at the site visit that the FSS fosters a high degree of collegiality in tandem with the line management, and we appreciate this.

Weaknesses

- Beyond the interdisciplinary initiative on AI across the FSS, and the Faculty-wide postgraduate courses (including an ethics course), the FSS seems to organise few interdisciplinary activities.
- It is not specified how the FSS builds its faculty-wide structures or how it supports activities for interdisciplinary collaboration and exchange between departments/schools.
- It is not discussed why the professor seminars did not attract enough interest to be continued – was it due to lack of interest in the substance matter or in knowledge sharing, discontent with the format, lack of responsibility, or time shortage?

Recommendations

- According to many, collegiality is the core of academic social relations. Given that the FSS has been at the forefront of this process, we suggest that the FSS highlight which measures it has taken to promote a collegial academic culture, not the least since the FSS seems to be well ahead of other faculties at UGOT. Maybe this ‘model’ could be ‘exported’ to other faculties? If so, we should also stress the need to ensure that there are structures in place for student participation.
- We strongly recommend that the FSS sharpen and strengthen its interdisciplinary profile – or at least its multi-disciplinary profile as suggested by UGOT – not the least in support of research, research-based teaching, and outreach activities. It will have to be manifested through a long-term infrastructure, ambitious plans for funding and support, and various other means and activities. Given the existence of strong units under the FSS that thrive on interdisciplinarity – these should be consulted in the strategic planning.
- Besides the increasing need for interdisciplinary research, we would like to emphasise the importance of nurturing basic research in each of the social science disciplines under the FSS.
- The FSS may consider further clarifying the role of general research seminars and activities associated with various research programmes at the faculty.
- Ethical issues are indeed central and important to discuss as for example in the new postgraduate course. However, it is also important to raise ethical issues from mere compliance exercises to the level of internalised ethical principles. So called ‘good practices’ must not distract from more important ethical issues.

D2. Publication strategy

Strengths

- We appreciate that the funding practice in relation to publication is under review.

Weaknesses

- There is no real publication strategy at the FSS beyond the University-wide call to publish in international peer-reviewed journals.

Recommendations/Comments

In times of heated debates on Open Access, it would be helpful for units under the FSS if the Faculty takes steps in the direction of formulating a publication strategy. In doing so, it is advisable to discuss the bibliometric model, including the critique against it, and to consider to what extent the model matters for allocating funding and resources to centres, departments and schools.

It may also be worthwhile to keep the discussion on types of publications alive. Is it, for example, a problem if most researchers steer in the direction of publishing articles in high-profile international journals while the production of books decreases? If so, why is this a problem, and for whom – for researchers, the discipline, and/or academia at large, or for main stakeholders in society, such as government agencies and others?

The publishing situation may partly be due to funding schemes, which promote short cycles, but does this explain why UGOT researchers do not publish books? In many social science disciplines, the writing of books is an opportunity to cut deeper into a subject and to develop new research agendas. However, research agendas can also be suggested in and promoted via articles.

The future role of conventional publishers and open-access journals is uncertain. It is an open question whether open-access journals will soon reach the same level of reputation and massed expertise as conventional outlets. The best policy is to allow for a fair competition.

The possibility to publish in open-access journals could, or should, be supported by financial means from the FSS. The panel asks if there is already a library fund that allows young scientists and students to submit to journals, where authors only have to pay the initial production costs?

The language issue is also of great importance, especially for departments and schools that work closely with external agencies, organisations and individuals in Sweden who have a strong and increasing demand for research-based knowledge. Here, it may surface as a problem if fewer items (articles, books, papers) are published in Swedish. Would it imply that scholars lose their impact in Swedish public debate, Swedish politics and Swedish mass media?

Finding alternative solutions to this issue is not to be the sole responsibility of the FSS – or the faculty level – but the FSS should play an important role in initiating a discussion on this issue.

Hence, the panel would welcome a discussion with the Faculty on how to approach the challenge of balancing the internationalisation agenda with the priority of publishing research in Swedish.

D3. Facilities and research infrastructure

Strengths

- Although there may be certain exceptions to this, the panel noticed during the site visit that the FSS operates well in terms of general and specific support to centres, departments and schools. In that respect a well-functioning support structure is in operation.

Weaknesses

- It is not totally clear what it means to support several national research infrastructures. Do you mean particular and major initiatives – such as Mistra Urban Futures under Chalmers? Or a particular database, etc? Such as the special one at the Department of Political Science?

Recommendations

- We recommend that the FSS make a clearer plan for the need, use, and profile of research infrastructure, and the role of social sciences within it. We also recommend that the FSS raise this issue with the University level.
- Further, we recommend that the FSS clarify how the long-term maintenance of databases from big research programmes and projects – constructed over a long time – should be funded and financed (e.g. those on voting patterns in elections in Sweden).

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- There is an awareness of gender and diversity issues, and the FSS has ‘initiated several quality improvements’ in recruitment and employment processes as well as in the promotion to associate and full professor. During the site visit, the FSS declared that the Faculty stands to benefit further from Swedish legislation in this field.

Weaknesses

- There is no concrete programme at the FSS for overcoming gender inequality or for strengthening equal opportunities at centres, departments and schools.

Recommendations

- It would be useful to launch a plan with a strategy for promoting equality – including gender and diversity. We recommend that the Faculty also bring this issue to the university level, in order to discuss long-term strategies for promoting more women to full professor.

D4.2 Internationalisation

Increased internationalisation is a trend for modern universities.

Strengths

- The work on internationalisation has intensified at the FSS (for example, through the planned trip to universities along the US East Coast), and there is a new committee for internationalisation at UGOT.

Weaknesses

- The aims and objectives for increased international collaborations are not yet clear.
- It is not clear which dimensions of internationalisation are (and will be) most relevant and interesting. It is also not clear what the responsibility of the faculty level should be when most ongoing collaboration occurs at centres, departments and schools.

Recommendations

- We recommend that the FSS clarify the aim and intention of internationalisation: in which fields, on what topics, for what kind of staff or student exchange, and with which countries or regions (including the Nordic ones)?
- Moreover, it is somewhat unclear what the FSS should do here. Is it even a core task of the Faculty, and if so, what would be the prioritised activity at the Faculty level? We recommend that the FSS seek to clarify this.
- In general, internationalisation must be implemented full-heartedly. Undergraduates will benefit from seminars and lectures in English. Along that line, we suggest that the FSS consider appointing a Dean of Internationalisation – or some other formal position indicating ownership of the UGOT internationalisation strategy, rather than adding it to the portfolio of deans who are already stretched across several different areas of responsibility.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- There is a system for co-financing and for knowledge sharing ahead of application submission.

Recommendations

- The Faculty may consider whether co-financing research is the best way to spend funds. Perhaps research support, or management and outreach work for specific projects, would be more useful and imply a simpler principle for transferring funds. Some degree of co-funding could perhaps be made in kind?

E2. University-wide support

Strengths

- The FSS is in regular contact with the Grants and Innovation Office (FIK).

Weaknesses

- Some contacts would probably benefit from becoming more regular.

Recommendations

- It is difficult to specify and suggest what kind of university-wide support is needed, at least at this stage in the evaluation. If international funding is prioritised, then support for keeping track of such opportunities and procedures for application should increase, also at the faculty.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

There is no direct reference to RED10 in the FSS self-evaluation, nor to the work done at the Faculty in relation to the RED10 recommendations. Yet, we noticed that this was brought up during the site visit.

The FSS states that there is support for cross-disciplinary research, but this is not made explicit.

It is not clear if there is a long/medium/short-term strategy for intensifying interdisciplinary research, education and outreach activities.

The Pro-Dean for research and postgraduate education was in charge of the RED19 process of writing the self-evaluation report. The leadership trio completed the work collectively.

The impression is that the FSS is in a phase of exploring and consolidating its main tasks and activities. This is a more significant issue than the question of how well the FSS has responded to RED10. At the site visit, it was made clear that the FSS leadership has prioritised and made great progress in structuring their work, not the least in terms of control, support, transparency and efficiency. This is already an accomplishment given the short period within which the new leadership has been in place.

Based on the FSS self-evaluation, we suggest that the main recommendations from RED10 are **still relevant** for RED19, particularly with respect to strengthening the structures for collaboration, interdisciplinary research, and the development of a research strategy.

CONCLUDING RECOMMENDATIONS

THREE CONCLUDING POINTS

Academic culture and management

First: The University of Gothenburg combines a bottom-up with a top-down approach into a strong ethos of support and control towards the achievement of research excellence. Among the seven UGOT faculties, the Faculty of Social Sciences (FSS) was the first and the fastest to implement the new management model launched in 2013. This was confirmed by staff at the centres, departments and schools, who, during our site visit, showed appreciation for the interaction with the Faculty level.

We gained the impression that the FSS leadership and staff are accessible, approachable and constructive in assisting the Faculty units. In combination with the new line management, the FSS leadership makes serious efforts to nurture an academic culture based on and characterised by collegiality and initiatives from below. Hence, we have reason to conclude that the FSS is at the forefront of good leadership under the decentralised model. This may partly, and importantly, be explained by the fact that the social sciences take democratic structures, participatory process, and leadership issues and conflicts seriously, both in theory and practice. In line with that, the FSS is developing an identity that may perhaps be seen as an emerging role model for constructive decentralised leadership at UGOT. If so, we argue and **strongly recommend**, that the FSS consider its internal channels for student influence and participation. This matter was hardly raised during our visit, but given the fact that student influence may be jeopardised in a line management structure, we suggest that the FSS lift this issue both internally and on the overall UGOT agenda.

Leadership

Second: Metaphorically, University Management sees the new university structure as a time glass with faculties situated as small vessels in the middle receiving financial means to be distributed to – and policy input to be directed at – the underlying level of centres, departments and schools. The FSS sees itself as a facilitator in assisting, supporting and controlling underlying units in following administrative guidelines and routines and in adhering to ordinances and legislation in general. In addition, the FSS is a knowledge broker, meeting regularly with the Heads of Department (and others) and sharing information between its centres, departments and schools. Hence, in the current organisational structure, the FSS performs *boundary work* – a mediating role that has the potential to be developed even further.

Strategic thinking

Third: There is a risk that long-term strategic decision-making gets lost in a line management structure of support and control. As a further concluding point, we

therefore appreciate the (emerging) strategic thinking and activities at the FSS, which go beyond the description and discussion in the self-evaluation. In this respect, the FSS has made decisive progress since the finalisation of its report. Once the control and support structures are in place and made clear and transparent, and once the budget allocation principle has been reviewed (and refined), strategic thinking (and investment) can be further developed to ensure that the Faculty level offers and tends to all these three important services.

RECOMMENDATIONS: THREE MAIN AREAS

I. FINANCE

Budget allocation principles and mechanisms

First, we support the FSS in its efforts to review the budget allocation principle while aiming for a fairer, more long-term and flexible formula, which recognises the diversity of how centres, departments and schools pursue high-quality research and earn their merits.

We recommend that the FSS consider decoupling the *achievement* component from the *base* component to slow down the continuously widening resource gap between underlying units. Alternatively, we suggest considering the introduction of a (re)distributive mechanism that dampens the accelerating disparity between high and low achievers.

We recommend that the FSS to clarify the principles for how the 10% of the budget is allocated across items, initiatives, and activities. If the faculty plans to further reduce this fund, we recommend specifying its alternative use and justifying the new strategy.

Funding of centres – and courses

Second, in support of medium-term planning, **we recommend** that the FSS provide financial means to centres for a three-year period instead of requesting annual applications. As regards the four faculty-based postgraduate courses, **we recommend** that the budget for those be substantially reduced since similar courses can be offered at a much lower cost.

Extra support for ERC grantees

Third, **we recommend** that the FSS request that the University level pay the extra support for ERC grants and other such prestigious grants; it should not be a burden on faculty budgets.

II. CAREER AND RECRUITMENT

Career progression and research time

It is a growing problem that many teachers at UGOT lack a guaranteed/reserved time for research as part of their duty (*forskning i tjänsten*). In addition, lecturers

and associate professors seem to be disadvantaged in this respect compared to full professors, at least according to our findings at the FSS.

Given that research-based teaching is not only a request from higher level authorities but also highly valued by students and society, we recommend that the FSS introduce, support, and monitor a policy guaranteeing research time in all lecturing positions. As a step towards that, the FSS should create and promote a clear strategy for career progression above the PhD level. As part of that, the FSS should introduce support structures such as, for example, a mentoring programme for early- and medium-career researchers.

If UGOT is to live up to its role as a comprehensive research university, and to safeguard both good career trajectories for lecturers and research-based teaching for over 40,000 students, **we strongly recommend** that the FSS together with other faculties and the University seriously strengthen the support for career progression. This should include guaranteed research time.

Recruitment

We noted that in some instances it is a concern if /when centres, departments or schools do *not have* – or do *not follow* – the established processes for recruitment.

Hence, **we strongly recommend** that the FSS ensure that all social science units follow the legislation, general guidelines, and specific routines and processes for recruitment. This implies having a strategy, a plan, and adequate procedures and committees.

III. INFRASTRUCTURAL SUPPORT

Large databases

As a result of increasing national and international research collaboration, there is an increasing demand for infrastructural support for larger research projects in the social sciences and potentially also in interdisciplinary projects. Since such financial support is rarely provided by funding agencies in the social sciences and humanities, this is becoming a serious concern for research groups that need to accumulate, manage, and maintain large data-sets over an extended time period and across many national boundaries, while at the same time making such data available for wider use.

Hence, **we strongly recommend** that the FSS raise this issue with the University Management level while also preparing a call for a national initiative on long-term financial support for large social science databases and infrastructure.

CONCLUDING REMARKS: THREE REMANING TASKS

To conclude this evaluation report, we pose three final questions of increasing general importance that the panel did not have enough time to discuss in-depth with the FSS:

Outreach: Is it clear what the FSS seeks to accomplish as regards outreach activities; and what will be the division of labour in outreach activities between the FSS and centres, departments and schools?

Interdisciplinarity: Is it clear what the FSS is aiming for as regards multi-disciplinarity and interdisciplinarity; and, what is the long-term strategy for how the FSS will collaborate with and mediate between centres, departments and schools in these increasingly important fields?

Sustainability: Does the FSS have a strategy that includes goals, concrete plans and activities for lowering its carbon footprint, and if so, how does that fit into the larger picture at UGOT?

After the final feedback session to University Management (5 April), we were left with the impression that UGOT is ready to make this issue a key priority. Preferably, this could be done in collaboration with other universities, nationally and internationally.

DEPARTMENT OF JOURNALISM, MEDIA AND COMMUNICATION

494	Introductory Remarks
494	Section A – Background and Research Standing
494	A1. Background
495	A2. Research standing
497	Section B – Leadership
497	B1. Leadership
498	B2. Recruitment
498	B3. Career structure
499	B4. Funding
500	B5. Feedback and evaluation
501	Section C – Complete Academic Environment
501	C1. Collaboration
502	C2. Relevance and impact on society
503	C3. Research-teaching linkages
503	Section D – Academic Culture
503	D1. Academic culture
504	D2. Publication
505	D3. Facilities and research infrastructure
506	D4. Transverse perspectives
507	Section E – Support
507	E1. Internal research support
507	E2. Faculty and University-wide support
507	Section F – Other Matters
507	F1. RED10 evaluation
508	F2. Other matters
508	Concluding Recommendations

INTRODUCTORY REMARKS

The panel consisted of the following members:

Erik Albæk (University of Southern Denmark), Hallvard Moe (University of Bergen), and panel chair, Karin Wahl-Jorgensen, (Cardiff University). The panel has read and assessed the department's self-evaluation report and discussed it with respect to strengths, weaknesses and recommendations, with an initial round of written feedback provided to the chair at the beginning of March 2019. This initial round of joint evaluation also included the identification of areas of clarification and potential questions for the site visit in April 2019.

In Gothenburg the panel met with a range of groups representing the department, including the professors' group; junior and senior researchers; PhD students and the SOM Institute. Prior to these meetings, the panel members had agreed on a series of questions, some of which were asked of all groups, and some of which were tailored to relevant groups.

Following on from the site visit, the panel has drafted this evaluation report. We are aware of ongoing evaluation processes at faculty and university level that might affect the department. These include reviews of the funding model for research, the university centres, and gender equality in work across the institution. Our recommendations should be seen in the light of these processes, with some of the areas for consideration impinging on relevant issues.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Department of Journalism, Media and Communication (JMG) is well-established and has a management team that involves faculty with administrative oversight across research (including the Head of Department, Head of Research, Head of Education) and directors of studies across taught programmes, as well as the doctoral programme. The department has a relatively flat structure which enables flexibility and informality. This creates a positive collegial environment and is widely appreciated by colleagues in the department. However, this does have the consequence that some governance structures are perhaps less institutionalised than would be ideal. In one of the teaching programmes, in the context of a quality assurance exercise, there has been a recent drive towards formalising governance structures. Extending this more broadly across the department, including to research-related areas, would enhance transparency and improve management, and limit unintended inequalities that might result from the lack of formal structures.

The department is supported by a strong administrative staff, whose work is widely seen as essential to the successful functioning of JMG.

JMG has a distinctive identity in terms of its disciplinary standing in national and international scholarly communities. The positive collegial environment is, in part, a result of this distinctive identity and the greater ability to create a close-knit community in smaller and more coherent departments. For this reason, maintaining the status of JMG as an independent department, by taking proactive measures to ensure its financial stability, ought to be a core priority of the university.

A2. Research standing

The Department of Journalism, Media and Communication is widely recognised as a leading institute for research in the field, at both national and international levels. As noted in the self-evaluation report, the department has well-established strengths in a broad range of areas, with particularly prominent and world-leading research in political communication, journalism studies and crisis communication. The department has been highly successful in taking advantage of research opportunities. This includes the recent track record in obtaining high-profile grant funding (such as an ERC Starting Grant), and the spectacular growth in international peer-reviewed journal article publications as well as international research collaborations.

In terms of the research groups, the political communication and crisis communication groups have an active life, including research seminars and regular lunches. Other groups appear to function more as loose thematic representations of the research at the department to enhance external understanding of its activity. The advantage is a dynamic environment that facilitates cross-cutting research projects and exchanges across the groups (in what is a small department which may not be able to sustain multiple highly-active research groups). The potential risk is a lack of formalised/structures, especially for junior researchers.

The department's current aspirations in developing new research initiatives speak to both existing strengths and longer-term strategies. It seems that these initiatives are more closely tied to particular research groups than others, and highlight the importance of further discussion of how to integrate all research groups into initiatives as well as longer-term areas for development.

The department has placed the research groups as an agenda item for their upcoming Research Day, and we welcome the initiative to evaluate, reconsider and renew the groupings. The department helpfully conceives of research groups as bottom-up and driven by researchers. It is important for the department to recognise that the informal and flat structure might represent greater challenges to junior researchers who are not currently closely associated with active research groups. Equally, we do agree with the department's analysis that the top-down enforcement of research groups may not be advantageous to the research environment.

The vision for the next 5–10 years seems both specific and achievable. These include:

1. **The consolidation of its nationally leading position in media and communication research, and its status as an internationally renowned department.** As the reputation of the department is already well-established, this is clearly an achievable goal. In this context, JMG's status as an independent department at the University of Gothenburg is essential to the unit's standing, as well as that of individual researchers within it.
2. **Furthering their research agenda addressing significant societal challenges.** Given the long-standing tradition in JMG of pursuing socially relevant research agendas, the department is well placed to contribute in this respect. There are currently several high-profile funded research projects in JMG which address significant societal challenges.
3. **Developing the culture of the research groups.** As mentioned above, this is clearly a key challenge given what appears to be the diversity and breadth of research groups, and their varying degrees of prominence and activity. JMG faces a series of strategic decisions regarding the future of research groups and how to support and strengthen their activities in alignment with the overall strategic objectives of the department.
4. **Becoming a highly attractive international research environment.** JMG is already characterised by high levels of international collaboration, publication, conference and professional association activity. The department has also succeeded in a drive to recruit greater numbers of international PhD students, and is currently considering plans for increasing staff mobility and visiting scholars. In terms of the recruitment of international staff, the requirement that applicants must be able to teach in Swedish represents a challenge. It is also clear that the limited research time for junior researchers might make Gothenburg less attractive for promising early-career researchers.
5. **Further developing the department's strong tradition and excellence in research methods.** The department already has concrete plans in this respect, which are based on the timely recognition of the emergence of new opportunities for automated collection of online media data and content analysis. It is worth considering how the SOM centre might serve as a resource towards enhancing broader expertise in research methods within JMG.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- As mentioned above JMG is widely seen as a friendly collegial environment with a flat and non-hierarchical structure. Faculty members appear to work extremely well together, and senior faculty and management are viewed as highly accessible. The department's action and operational plan is revised on an annual basis and has a clear relationship to the university's strategic planning, indicating both vision and flexibility. The department has a governance structure that includes regular meetings within groups of senior management, professors, PhD supervisors, teaching staff, as well as a monthly breakfast meeting for communicating major developments.

Weaknesses

- Overall, due to the flat and non-hierarchical structure, research governance is less formalised than it tends to be at comparable departments elsewhere, and this could present management challenges that have an impact on the research culture in several ways. First, amongst junior faculty, there is a perception that some decisions are not always clearly communicated. Secondly, processes for mentoring and career development support are highly informal. For PhD students, much responsibility for such support lies with individual supervisors. For faculty, there is no formal mentoring system, though junior faculty receive advice through annual review meetings. The informality of mentoring could have an adverse effect on progression for more junior staff members.

Recommendations

- Formalise governance structures for research.
- Formalise mentoring system.
- Make strategic processes more transparent.

B1.2 Faculty/University level leadership

Strengths

- The devolution of decision-making and increased autonomy granted to departments is considered highly positive by the departmental management team. The leadership of JMG is grateful for the support it receives from the faculty, particularly with respect to ERC applications. The devolution of funding to departments seems to be a strength in enabling dynamic and targeted support for research activities.

Weaknesses

- The department has shared significant concerns about the model for funding allocation. According to modelling shared with us, this will lead to a significant

decrease in funding for JMG – despite the department’s significant success in research – which might represent an existential threat over time. More than anything, the department requires stability in its budget to facilitate support for strategic research activities. The self-evaluation report is helpful in pointing to the limitations of the performance-based allocation of funding, on the basis that it “*is hard to see that JMG can increase its production to any significant extent. It is also doubtful whether it would be desirable to publish, for example, much more than we actually do*” (p.18). The indicators used to allocate funding are based solely on (a) production of publications within the Norwegian model; (b) PhD completions; and (c) research grant capture, without the allocation of stable base funding. This endangers the financial stability of the department, and also fails to recognise the considerable social relevance of work done in JMG – amongst other things, through the publication of research in Swedish.

Recommendations

- The faculty should reconsider the funding model to secure stability, especially with respect to the situation of smaller departments like JMG.

B2. Recruitment

Strengths

- The department has made high-profile hires that have contributed substantially to enhancing the research culture of the department and fulfilling the goals of RED10. The department has also succeeded in recruiting PhD students internationally as well as nationally.

Weaknesses

- The report identifies several structural challenges to recruitment. One has to do with the difficulties of writing targeted job postings, another with the central role of the evaluation committee, which limits the department’s decision-making. This, however, appears to be changing, allowing the department greater autonomy in its hiring.
- As mentioned above, the need for prospective candidates to be able – when starting at JMG – to lecture in Swedish constitutes a major obstacle to recruiting international senior scholars.

Recommendations

- The department should consider more targeted recruitment across all levels, where possible.
- Revisit the policy on language requirements to attract more international candidates.

B3. Career structure

Strengths

- The department appears to have given some thought to how to encourage the

career development of junior researchers through their involvement in collaborative projects. The collegial environment is supportive and enables the development of individual and collaborative research.

Weaknesses

- As mentioned above, the informality of the mentoring system and general governance structures may create inequalities in opportunities for advancement for junior researchers, and in terms of career development for PhD graduates.
- The unequal allocation of time for research (varying between 50% for externally hired professors and 10% for junior and senior researchers without external funding) is a major issue affecting progress, particularly of junior researchers. This is not a problem unique to JMG, but clearly does have an impact on particular groups. This allocation also creates a structural imbalance where full professors are expected to consistently lead research development and funding applications, while more junior faculty may be missing out on leadership opportunities.

Recommendations

- There is a need for more formalised mentoring of PhD students towards the end of a project period. This includes identifying career opportunities outside the university.
- Set in place proactive policies to facilitate more research time for junior researchers (e.g. short-term teaching relief; seed funding for development of projects)
- Work to balance leadership in research projects across the career trajectory.

B4. Funding

Strengths

- Given the relatively small size of the department, it punches well above its weight in terms of its ability to obtain external funding. There is a clear and impressive upward trajectory on this front over the last decade (and since RED10). The department receives funding from a variety of sources, including the European Commission, national research council grants, foundation funding and public bodies.

Weaknesses

- We have discussed issues concerning the faculty funding model above. One major issue is that the financial planning of the department in recent years has relied on the projection of growth, and they have therefore made strategic investments in anticipation of increased income. However, due to the change in the funding model, JMG is now anticipating a significant decrease in their income. This means that the department faces a very difficult situation in which no discretionary funding is available. As a result, management is unable to make any strategic decisions about the allocation of research funding and support any new initiatives. This year, for example, the department was unable to offer

any PhD positions. Without changes to the funding model, the department is unlikely to be able to act on any of the recommendations of this report that have resource implications. In the longer term, if this situation persists, it may face an existential threat.

Recommendations

- Continue to call attention to the structural problems associated with the new funding model.
- Maintain proactive effort at securing external funding.
- Consider formalising support for junior and senior researchers seeking to apply for research funding, including collegial reviewing of draft grant proposals.
- Consider working with external organisations to secure funding for PhD scholarships.
- Provided that the funding model remains unchanged, consider strategic realignment with the priorities of the funding model to optimise income.

B5. Feedback and evaluation

Strengths

- The research culture in the department generates productive opportunities for informal feedback and evaluation. The welcoming and constructive research culture is a clear positive reported across all levels.

Weaknesses

- The system for formal feedback and evaluation seems limited to specific components of annual pay review, as well as promotions applications. For PhD students, it is unclear whether they routinely receive feedback from senior faculty members beyond their supervisory team.

Recommendations

- The department suggests formulating a clearer policy on monitoring and evaluation. This seems like a useful step forward, and also one likely to formalise equality in feedback and evaluation.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The department has a strong record of national and international collaborations in research. Such collaborations enhance the profile of the department and enrich the research culture. The trend towards proactive building of collaboration appears to have been strengthened by the increasing internationalisation of scholarship in recent years.

Weaknesses

- Collaborations are based primarily on the initiatives and networks of individual researchers, rather than larger groups or institutional structures. This could be viewed as a strength, because it reflects the bottom-up nature of scholarly work, but could also, as noted in the self-evaluation report, be perceived as a weakness because it means that such collaborations are dependent on particular individuals.

Recommendations

- The creation of strategic partnerships with similar departments in Sweden and internationally, based on shared research interests, may be a welcome move towards solidifying the structures for collaboration.

C1.2 Collaboration with external stakeholders

Strengths

- JMG faculty have a strong track record of collaboration with media organisations in Sweden –which also involves frequent roles as media commentators/public intellectuals.

Weaknesses

- The department (including the SOM centre) relies heavily on books in Swedish as a means of communicating research. While this has historically been a successful strategy for gaining publicity and intervening in public debate, it may be that the opportunities brought about by technological change (e.g. blogging, social media, podcasts) could serve as alternative means of communication.

Recommendations

- Consider new ways of communicating and cooperating with external stakeholders.
- As mentioned above, collaborating with external stakeholders may lead to funding or co-funding, and may secure funding for PhD students.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- Researchers are successful in terms of publishing high-impact outputs in both English and Swedish. Some parts of the department pursue a “double publication strategy” of translating publications so that they can be accessed both by international (scholarly) audiences and Swedish (broader) ones.

Weaknesses

- The pressures on researchers to work in two languages are a key challenge to manage, especially for junior staff who have limited research time.

Recommendations

- Allocate resources to support researchers publishing in both Swedish and English.
- Make a proactive effort to gain recognition for JMG publications or other outreach and engagement activities currently not included in the Norwegian model.

C2.2 Research relevance and impact on society

Strengths

- JMG has a strong tradition of carrying out societally relevant work, and ensuring it has significant impact through interventions in public debate and policy arenas. The SOM Institute has an exceptionally high profile in Swedish society.

Weaknesses

- Although there is a strong and admirable culture of following through on ensuring that research has relevance for and impact on society, and this is institutionalised through organisations like the SOM Institute, some of the initiatives that enhance relevance and impact of research are, perhaps inevitably, tied to the work of particular key individuals. There is also a danger that such activities may direct the energies of researchers in directions that are not rewarded by the university.

Recommendations

- Consider how research with high relevance and impact may also translate into international publications.
- Reconsider what it means to make an impact on society.
- Seek recognition for outreach, engagement and impact work in the faculty funding model.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Education at both undergraduate and graduate (MA) levels appears to be increasingly research-led. The newly-launched master's programme in political communication is one example of a strategic development that strengthens the links between teaching and research. There appears to be some reliance on teaching-only faculty in practice-based areas due to the nature of the activity.

Weaknesses

- Informal involvement of PhD students in delivery of education.

Recommendations

- Formalise procedures for including PhD students in teaching.

C3.2 Doctoral education

Strengths

- Doctoral students are primarily – and increasingly – admitted based on a match with areas of faculty research expertise and interest. The introduction of seminars dedicated to PhD students (mentioned in the “Research Culture” section) seems useful to capacity-and-community-building in the PhD group.

Weaknesses

- Lack of information about PhD courses.
- Also, the mandatory presentations of PhD students' work and how the feedback is organised could be more formalised.

Recommendations

- Formalise sharing of information about PhD courses.
- Make sure that PhD students, throughout their studies, are adequately advised on where to search for relevant courses and advised on what courses to take.
- Facilitate a robust organisation of a regular PhD group seminar/meeting, and strengthen the PhD group's representative's participation in relevant management bodies.
- Consider introducing mentoring among PhD students.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There is a strong and dynamic research culture in the department, which is maintained through ongoing practices like seminars, research days, activities

specific to particular research groups, as well as through longer-term strategic planning. The department is highly aware of the environmental impact of academic travel, and taking active steps at mitigating this.

Weaknesses

- There appears to be relatively limited internal funding for research, at departmental, faculty and university levels.
- Managing workloads relating to the maintenance of research culture activities is a challenge.
- Small department size combined with great growth in some areas means that some subfields (e.g. those which are key to undergraduate teaching) are more marginal in terms of research activities.

Recommendations

- Systematically monitor workloads associated with enhancing the research culture across all levels.
- Consider the sustainability of areas of research with respect to critical mass of faculty and PhD students.

D2. Publication

D2.1 Publication strategy

Strengths

- JMG has always been a highly visible department in the field, and known for its research productivity, which is particularly remarkable given the relatively small number of faculty, as well as the fairly recent turn towards an emphasis on publications in peer-reviewed international journals. Along those lines, there has been a significant upward trajectory in terms of such publications, with particular strengths in the areas of political communication and journalism studies.

Weaknesses

- As highlighted in the self-evaluation report, there is some unevenness in terms of the distribution of publications across research groups. This is, of course, a result of the diversity and organic waxing and waning of groups, but merits further reflection.
- In particular, the self-evaluation raises the following question: “*To what extent should JMG continue to reinforce the main research areas with the aim of taking international leadership in journalism and political communication, or rather put more efforts into securing breadth and diversity in the research profile?*” (p.37). This seems to be a major question for the overall assessment.
- A significant number of publications (e.g. those of the nationally high-profile *Institutet för mediastudier*) do not yield points according to the Norwegian bibliometric system. This might highlight some issues with the adoption of this system as a core indicator for the funding model, given that it does not reward work published in Swedish. On the other hand, the requirements for level 1 are

supposed to secure a certain level of quality control, and non-peer-reviewed reports in internal publication series lack such quality control.

Recommendations

- A period with great increase in numbers of international publications means increased workload and higher expectations. The department needs to find a way to balance the aim of having high-quality international publications and communicating with the Swedish general public and with stakeholders.

D2.2 Analysis of bibliometric data

Strengths

- Discussed above.

Weaknesses

- Discussed above.

Recommendations

- Discussed above.

D3. Facilities and research infrastructure

Strengths

- The department has a strong research infrastructure through the SOM Institute, and also benefits from other university-wide structures.

Weaknesses

- Given technological change (e.g. the growing use of computerised content analysis), maintaining the research infrastructure is both urgent and costly.
- The relationship between the department and the SOM institute is somewhat unclear. There is a great potential for the SOM institute to further strengthen methodological competences with the department, and to extend the already impressive impact of JMG/SOM research, but currently, the opacity of the relationship appears to inhibit realising the full potential.

Recommendations

- Moving forward, it is important to ensure that the acquisition of computerised content analysis facilities is adequately integrated into the department and useful across the board.
- More broadly, a strategic consideration of the future direction of SOM would be beneficial (e.g. the extent of the integration of the institute into JMG, as well as the possibilities of supporting an experimental research lab).

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- There is gender parity in terms of research-active staff across all levels, and there is no gender pay gap. The department appears to be highly aware of issues of equal opportunities and equality, and is currently carrying out an audit around these questions, which also looks at the distribution of administrative tasks, as part of a faculty-wide analysis.

Weaknesses

- There is an uneven distribution of research funding between men and women, and the bibliometric analysis section also highlights that the most frequently cited scholars in the department are all male. Administrative tasks may be unevenly distributed according to gender, with more women taking on demanding management roles.

Recommendations

- Act on the findings of the gender equality audit, and take action to ensure gender equality is a consideration in support for research (e.g. research seed funding), as well as in the allocation of major management roles.

D4.2 Internationalisation

Strengths

- The department has a strong international orientation, with significant collaborations and mobility. It has plans in place for enhancing internationalisation, and investing in an international fellowship programme, provided funding is available.

Weaknesses

- As discussed above under “recruitment,” the Swedish language requirements for faculty places limits on internationalisation.

Recommendations

- Facilitate staff mobility to universities outside Sweden (also for junior researchers and PhD students).
- Facilitate visits from prominent international scholars to JMG.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- There appears to be strong administrative support for research.

Weaknesses

- The self-evaluation report identifies challenges associated with hiring casual labour for ongoing assistance with research projects.

Recommendations

- As mentioned elsewhere, further support for non-professorial faculty would benefit the department.

E2. Faculty and University-wide support

Strengths

- The interface between the department and faculty with respect to research management appears to be limited to support from the university's Grants and Innovations Office, as much research management activity is devolved to the departmental level.

Weaknesses

- The self-evaluation report highlights current challenges regarding the implementation of data protection regulation. This is not an issue that is unique to JMG or Gothenburg, but does add an administrative burden which requires significant support.

Recommendations

- Where possible, enhancing faculty- and university-wide support for dealing with common issues (e.g. GDPR and grants management) would increase efficiency and expertise-sharing, and ensure that best practice is followed.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The department appears to have successfully taken on board the recommendations of RED10 in important areas. First, there is evidence of significant national and international collaboration. Second, the department has greatly enhanced its output of international peer-reviewed articles and has achieved a strong international profile.

The self-evaluation report, however, suggests that issues around the mobility of researchers may remain a concern, and that there continues to be some unevenness with respect to the level of activity across research groups.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

Below, we have summarised our recommendations from the key areas considered in the research evaluation. The points mentioned here are synthesised from the more specific recommendations discussed above.

Background/research standing

- JMG is an internationally leading department, known for its work in journalism studies and political communication. Supporting its status as an independent department through securing its financial stability is absolutely essential.

Leadership

- Continue to formalise governance structures for research, including mentoring and the communication of strategic processes.
- Continue discussions about the role of the research groups, with an eye to addressing inequalities and uneven distribution of activity.

Recruitment

- Consider taking a more targeted approach to recruitment across all levels (including PhD students) where possible.
- Evaluate the policy on Swedish language requirements to attract strong international candidates for positions and to enhance internationalisation.

Career structure

- Work to facilitate more guaranteed research time for junior researchers and balance leadership in research projects.

Funding

- Continue to call attention to structural problems associated with the faculty funding model.
- Enhance support for junior and senior researchers seeking to apply for research funding.
- Maintain proactive efforts at securing external funding.
- Provided that the funding model remains, consider strategic alignment with its priorities.
- Consider working with external organisations to secure PhD funding.

Collaboration with external stakeholders and relevance and impact on society

- Consider new ways of communicating with external stakeholders.
- Reconsider what it means to make an impact on society.
- Seek recognition for outreach, engagement and impact work in the faculty funding model.
- Allocate resources to support researchers publishing in both Swedish and English, to ensure that research with high relevance and impact translates into international publications.
- Develop strategic partnership with similar high-profile departments elsewhere, nationally and internationally.

Research-teaching linkages

- Formalise procedures for including PhD students in teaching, and the sharing of information about PhD courses.

Academic culture

- Systematically monitor workloads associated with enhancing the research culture across all levels.
- Consider the sustainability of areas of research with respect to critical mass of faculty and PhD students.

Publication

- Balance the aim of having high-quality international publications and communicating with the Swedish general public and with stakeholders. Ensure that Swedish language publications ultimately result in international publications in peer-reviewed publication outlets.

Facilities and research infrastructure

- Strategic considerations of the future direction of SOM, including its role in the department and the ways in which JMG may gain greater benefits from these institutes.

Transverse perspectives and internationalisation

- Take action to ensure gender equality in support for research, as well as in the allocation of management roles.
- Facilitate mobility of researchers to and from JMG.

DEPARTMENT OF POLITICAL SCIENCE

512	Introductory Remarks
513	Section A – Background and Research Standing
513	A1. Background
513	A2. Research standing
516	Section B – Leadership
516	B1. Leadership
517	B2. Recruitment and Career structure
518	B4. Funding
518	B5. Feedback and evaluation
518	Section C – Complete Academic Environment
518	C1. Collaboration
518	C2. Relevance and impact on society
519	C3. Research-teaching linkages
519	Section D – Academic Culture
519	D1. Academic culture
520	D2. Publication
520	D3. Facilities and research infrastructure
521	D4. Transverse perspectives
521	Section E – Support
521	E1. Internal research support and
521	E2. Faculty and University-wide support
521	Section F – Other Matters
521	F1. RED10 evaluation
522	F2. Other matters
522	Concluding Recommendations

INTRODUCTORY REMARKS

Members of the panel for the Department of Political Science are Professor Leif Lewin (Uppsala University, chair); Professor Elisabeth Ivarsflaten (University of Bergen) and Professor Martin Lodge (London School of Economics and Political Science). Prior to the visit, communication between the panel members was conducted via email and telecommunications. Drafts of this panel report have been shared among and contributed to by all members of the panel. Lewin and Ivarsflaten participated in the site visit in Gothenburg in April, whereas Lodge was unable to attend (paternity leave). The panel discussed the conclusions of this report at the end of the site visit and this report reflects the unanimous position of the panel.

The panel work has been an intense and highly stimulating exercise. We are thankful for the support granted by the university throughout the exercise. The background documentation offered substantial information on the changes in the department since the last review exercise. The site visit allowed us to explore a range of issues that arose from our initial reactions to the information provided. The panel understands its role to be that of a ‘critical friend’, our comments are directed towards encouraging further reflection within the department and between department and university leadership over the coming years.

In general, we are very impressed by the important international work being conducted at the Department of Political Science. The department is clearly outstanding in its international reputation. The ‘National Election Study’, the ‘Quality of Government’, and the ‘Varieties of Democracy’ research programmes are nationally and internationally leading. The past years have seen a process of significant internationalisation; in this respect, the department can be regarded as one of the ‘first movers’ across Scandinavian universities. Overall, given its distinct profile, the department can be placed among the leading political science departments in Europe.

There are, however, challenges:

- The department is facing the retirement of some of its senior and well-known professors. This will require strategic decisions in terms of recruitment strategy in view of existing research strengths, the potential tension between continued internationalisation and maintaining a strong Sweden-facing focus, and the need to enhance diversity among senior staff.
- The department has a number of formalised and more informal research programmes, and the prioritisation and relationship between these programmes, and between the programmes and the department, could be clarified. Some of the programmes mentioned are world-leading, others appear more loosely formed. During the site visit, the panel was persuaded that the prominent position of the leading programmes is generally accepted by the department and that they are seen as a fruitful contribution to the wider departmental research environment. Nevertheless, the organisation of the research programmes also

presents a challenge for the department in terms of equality and diversity considerations.

- The self-evaluation report highlights the international collaborative efforts that the department is contributing to (in part, in leading positions). Less clear is the relationship of the department with other units in the university itself. The site visit made clear that several of the research programmes have initiated and lead significant cross-disciplinary research at the university.
- The report highlights the need to address the resource requirements of existing research infrastructures (and databases). Given the international excellence of these programmes, there needs to be a strategic decision on how such existing infrastructures can be resourced over time. Such issues are not unique to this university and department, but require a long-term view about strategic priorities and resource commitments. Arguably they are particularly important to this department due to the centrality of research infrastructures and databases in several of the most prominent research programmes.
- The department has established a clear intellectual and international leading profile, based on a vibrant research environment. The investments into high-profile research programmes (such as QoG) are likely to provide long-term reputational effects, especially if these infrastructures continue to be resourced. There are questions about whether the department would want to continue its particular focus, or whether it should consider widening its profile. Political theory/ political philosophy, in particular, could be a valuable complement to the existing offerings.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background and A2. Research standing

The department is one of the biggest in the Faculty of Social Sciences, with a budget of around SEK 100 million for research and around SEK 40m for education. In terms of external funding, the department has, over the course of the past few years, been very successful; its income is twice as large as the next department in the faculty. The biggest contributor is the Swedish Research Council (*Vetenskapsrådet*, or VR). In 2017, VR granted SEK 36m to the department, the Swedish Foundation for Humanities and Social Sciences (*Riksbankens Jubileumsfond*, or RJ) SEK 9m, the EU (Framework programme 7 and Horizon 2020) SEK 5m, the Wallenberg Foundation SEK 2.5m and the Swedish Research Council for Health, Working Life and Welfare (Forte) SEK 3m. The site visit provided further evidence of a department that at all levels is very successful in both initiating and running large externally-funded research projects.

The department is a high-profile, research-oriented department, with a strong visibility in the international scholarly community, in terms of participation in and organisation of international conferences and research networks, and in terms

of internationally leading research publications. The department is ‘top-heavy’ with 19 professors (five women and 14 men) and close to 30 lecturers (evenly distributed in gender terms). Four-to-six PhD candidates are accepted every year. The department reported that its PhD candidate placement is successful, with students moving to prominent positions in academia and in the worlds of politics and administration, both nationally and internationally.

According to the documentation, the department is organised around six major research programmes (discussed here in a different order to the one put forward in the document):

1. **The Swedish National Elections Studies Programme (SNES)** is a world-leading programme, established in 1954 by Professor Jörgen Westerståhl. It provides one of the most long-standing time series on political behaviour data in the world (only outdone by the US). The importance and impact of this programme on political science, Swedish opinion-shapers, and the wider publication cannot be exaggerated. It led to a reorientation of Swedish political science, it put the department in the front line of international research, it established the foundation for the methodological education of generations of political scientists in Gothenburg in particular, and Sweden more generally, and it has had a tremendous impact in the media and therefore has shaped the way in which Swedish citizens understand politics. With the SOM Institute, run in close collaboration with the Department of Journalism, Media and Communication, the research on political opinion in Sweden has been simultaneously deepened and made more accessible. The big challenge for such a well-established and long-term programme is renewal. So far, the programme has succeeded in this respect. The initial focus was on individual voters. Subsequently, the analysis was broadened to include the functioning of representative democracy and the political system more generally. Recently, an interesting ‘marriage’ has taken place between the original election studies of SNES and elements of good government (see below). In addition, the programme has recently produced a comprehensive analysis of a (50-year) electoral history of Sweden. A separate challenge for the programme is the cost and management of the large data bank.
2. **The Quality of Government institute (QoG)**. One of the outstanding contributions to international scholarship has been the Quality of Government institute, established by Bo Rothstein and Sören Holmberg. The object of QoG was to investigate how good government can be created and maintained. This initiative has also provided innovation in that it combines quantitative analysis with political theories of trust and social capital. QoG-researchers have published extensively, supported 10 PhD-dissertations, managed a successful visiting fellows programme and built a large data bank that is widely used in international publications.

3. **The Varieties of Democracy Institute (V-Dem)** was created in 2014 as a large-scale international project, which in addition to 17 staff members from the department includes an international team consisting of five principal investigators, 164 project managers, 30 regional managers, 170 country coordinators and research assistants, and 3,000 country experts. This means that V-Dem is one of the largest social science data collection programmes ever, with no fewer than 70,000 downloads of data from the programme and 195,000 unique users of the programme's online resources. The overall object is to study democratisation in the world. In addition, the programme coordinates many smaller specific programmes related to democracy, democratisation and autocratisation.
4. **The Centre for Collective Action Research (CeCAR)** is an interdisciplinary research centre, funded by the Vice-Chancellor and hosted by the department. The overarching question concerns the conditions under which successful large-scale collective action can and does occur. Research on small-scale collective action holds that users often overcome the collective action problem by setting up self-governed regulatory systems. Larger groups seldom cooperate voluntarily without coercion. CeCAR then studies the design and policy measures that are simultaneously effective and considered legitimate. Its activity includes both postdocs and PhD candidates, in addition to about 20 senior scholars from not only the social sciences, but also from medicine and natural sciences.
5. **The Centre for European Research at the University of Gothenburg (CERGU)** was established in the mid-1990s to promote multidisciplinary research on issues relating to Europe, and includes scholars from the three faculties of Business/Economics/Law, Social Sciences and Arts. It was recognised as a Jean Monnet European Centre for Excellence in 1998. The programme contains a diversity of activities, ranging from Tuesday morning breakfast meetings to public events through seminars and international conferences. The recruitment of Associate Professor Lisbeth Aggestam from the University of Bath has been very important for CERGU, as has the recruitment of Jonathan Polk (as postdoctoral researcher, now Associate Professor).
6. **The Programme on Government and Local Development (GLD)** is a research programme initially established by Professor Ellen Lust formerly at Yale University. Programme Director Lust was – according to the department's report – successfully persuaded to move to Gothenburg. Its focus is local government in effort to promote human welfare globally. A new measurement has been developed, the Local Government Performance Index (LGPI), which has been utilised in a large number of national surveys. This programme consists of 12 full-time staff and cooperates with universities in Norway and Malawi.

In addition to these six programmes, the department features a number of further initiatives. These include, for example, initiatives exploring ‘good losers’ in representative democracy, gender and diplomacy, and the political effects of pregnancy and childbirth. The department claims to have explicitly decided not to have a gender-specific programme. Instead, it aims to integrate a gender perspective across all fields of study in the department.

In sum, the department has been very successful in establishing internationally recognised and leading research programmes. The department has also developed strategies to ensure continuity on the one hand, and scope for new initiatives on the other. The long-term financing of the well-established research infrastructures and large databases at the centre of many of these initiatives remains a major challenge.

As noted already, the department enjoys a very high standing in the international political science community, with arguably three programmes enjoying particular international and national prominence (national election study, QoG and V-Dem). This esteem is indicated by publications in leading international publications, editorial board memberships, conference attendances and attempts at ‘poaching’ by other international universities.

The department has the ambition to be internationally-leading by offering a broad orientation in political science. The General Research Seminar seeks to bring together the different research interests of the department in a collegial way. The department appears – from the documentation and experience of the panel members – to operate on collegial and supportive terms, offering a supportive environment for research innovation. The department has distinct strengths, but also some gaps in its coverage, for example, in political theory/philosophy. The review panel recommends the department to consider broadening its profile, also in view of supporting the training of early-career researchers and the teaching of graduate and undergraduate students.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

The success of the department in terms of leading indicators suggests that the management of the department seems to be working. However, the material provided does not fully engage with the notion of ‘leadership’, highlighting instead the importance of ‘collegiality’. Indeed, the material provided highlights the importance of senior individuals in the department for ensuring the collaborative development of different research programmes. To compensate for the absence of traditional collegial decision-making structures (see below), the department has established a number of advisory committees. This structure seems to be working well, although it does not allow for the same degree of student input as structures with an elected board (*institutionsstyrelse*).

B1.2 Faculty/University level leadership

The University of Gothenburg is governed by a system of line management rather than collegiality, (see, for example, Shirin Ahlbäck Öberg & Elin Sundberg: *Vad har hänt med det kollegiala styret?* in Linda Wedin & Josef Pallas (eds): *Det ostyrda universitetet? Perspektiv på styrning, autonomi och reform av svenska lärosäten*. Stockholm: Makadam förlag 2017). There seems to be a supportive acceptance at the university level of the ways in which the department has created advisory committees. Nevertheless, there are two problems. One is that there is a risk of limited accountability as there is no Senate to hold leaders to account. In addition, there are also limitations to student input in a line management system in contrast to a more collegial system of decision-making. How the overall relationship between department and other parts of the university is understood and managed is central to long-term development of the department. Such questions, however, go beyond the scope of this review as they touch on issues for the RED19 evaluation of the faculty/university level. Nevertheless, the relationship has an impact on how different parts of the department understand the role of leadership. In the context of this exercise, the relationship between the 'centre' of the university and the department needs to develop agreement on a range of issues. Not unlike other institutions, there is a question regarding overheads. As some funding bodies do not provide for overheads, these have to be covered by the department itself, which means that success is effectively 'punished' in terms of impact on departmental finances. Furthermore, the report mentions concerns about 'research time' for staff. A clear commitment by the university to support research by all (tenured and non-tenured) staff seems important for supporting collegiality.

Second, there is an issue about organising recruitment (see below) in view of the pending retirement of some leading professors. The issue of 'flexible recruitment' is mentioned and there seems to be some scope for flexibility regarding salaries. During the site visit, members of the department told us that, for them, guaranteed research time is particularly important. The panel shares this view.

B2. Recruitment and B3. Career structure

The previous RED exercise recommended internationalisation. It is in this area that the department has made some very strong progress. Internationalisation has been particularly prominent in the recruitment to the PhD programme and at postdoctoral levels. The key criterion for recruitment has been 'quality' rather than mere 'good fit' with specific research programme interests.

The self-evaluation report suggests that the department is experiencing constraints in international recruitment, not just in terms of salary but in terms of overall 'package' (research time). The department seems keen to develop strategies to address some of these constraints. The university should be interested in supporting research by all its staff and it seems surprising that the university is not in a position to offer research time to early-career staff (as is the case in comparator institutions). Questions about international recruitment at senior and more junior

levels are critical for the coming years, and the department's self-evaluation has limited information on how future recruitment will be organised.

In its internationalisation strategy, the department has been very successful and this has contributed to its excellent international reputation. At the same time, the report notes potential issues that arise from internationalisation, namely latent tensions between international and 'domestic' orientations in research, which also has potential implications for future grant income and visibility to domestic audiences.

Input during the visit also made clear that internationally recruited postdoctoral fellows and permanent faculty would benefit from more in-depth introduction to the Swedish university system and high-quality language training. These are issues that will likely arise at all university departments that are successful in international recruitment, and so it may be an issue that could benefit from being addressed centrally by the university, in the form of international faculty introduction courses or seminars or the like.

B4. Funding

As already mentioned, the department has been very successful in receiving grant income from a variety of sources. This success has been sustained over a period of years. At the same time, it would be good to receive more information about the ratio of successful applications in the context of total number of applications, and how these ratios vary across members of the department.

B5. Feedback and evaluation

The panel has not separately addressed this question.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

Collaboration, especially in terms of international and national activities, appears to be very strong, both in the worlds of research and practice. The V-Dem programme, the flagship in this respect, is, as mentioned, probably the world's largest research collaboration in political science. However, interdisciplinary collaboration is excellent across all research programmes. Engagement with other stakeholders is also well-established and includes high-profile organisations, such as IDEA, Transparency International and the World Bank, as well as national councils and funds.

C2. Relevance and impact on society

The department has established a number of pathways to ensure relevance and impact on society. It undertakes a range of activities to directly and indirectly engage with society. Direct activities include Policy Dialogue Days and conferences involving international organisations. There is also evidence of departmental in-

terest in debating the ongoing relevance of the discipline and potential implications in terms of 'integrity'. One interesting initiative is to engage with non-academic speakers through the General Research Seminar. The material also raises issues about the potential trade-off between internationalisation and domestic impact.

The department's documentation includes a discussion about potential risks of being 'too close' to relevant stakeholders. The department seems to be well-aware of potential tensions and the need to maintain a distance. Such risks might be more prevalent where departments are located in national capitals, but the discussion highlights attention being paid to potential biases in the ways in which pathways to impact are being embarked on. Such potential tensions are not unique to the department, but are probably particularly acute for a department of political science. The department seems well aware of this problem and, as far as we can see, handles these issues with considerable skill and judgment.

C3. Research-teaching linkages

There is a strong commitment towards research-led teaching. This includes the commitment that all professors are to contribute at least 20% of their time to teaching. There is no information as to whether students are engaged (consulted) in the development of the teaching provision, and whether students or the department have views as to potential gaps in the teaching provision due to the specific focus of the department. The department should consider the possibility of broadening its teaching portfolio so as to ensure that its students receive education across all fields of political science.

One aspect of the research-led teaching is a parallel commitment towards ensuring a 'practical' orientation in the teaching programmes, including specific forms of assessment and lectures by alumni.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

The department's documentation points to a very vibrant and collegial research culture that individual panel members' experiences with the department also confirm. There is an institutional commitment towards sharing research interests across the department, as indicated by the bi-weekly General Research Seminar. Participation in the General Research Seminar is impressive; there are also a number of well-attended specialist research seminars as well. This indicates a very active research environment. The department might even consider if there are perhaps too many seminars, luncheon meetings, and workshops, and whether some of the specialist seminars could be coordinated better or even merged. Workload management, as exercised through departmental and research programme leadership, and as perceived by different staff (faculty and administrative services), is critical for supporting a good academic culture.

The department has mechanisms in place to reinforce research ethics. There is no report of identified research misconduct or unacceptable practices.

D2. Publication

D2.1 Publication strategy

The output from the department in terms of books and articles in leading university and other presses and international peer-review journals is very satisfactory.

D2.2 Analysis of bibliometric data

The documentation provided highlights the strong research output profile of the department over the past few years. At the same time, the way in which the documentation was provided does not offer a particularly good insight into the overall publication profile across members of staff and across types of journal. This might be a result of the review requirements (and the department's reaction to these instructions). The panel views the overall publication record of the department as impressive.

The report contains an appendix which underlines that some of the faculty at the department are very highly cited. This is, as the report argues, a good measure of scholarly impact and yet another indicator suggesting that the department performs at the highest levels.

The report also makes an important point that it is necessary to recognise publications in thematic or general science journals. We were very surprised to learn that publications in one of the top three general science journals (Science, Nature, and PNAS) were not considered towards the formal publication metrics as used by the university/faculty. If this is correct, the university should improve its policy on dealing with publications in general science or thematic journals that cut across boundaries.

In general, the visit at the department confirmed that there is a healthy and vibrant publication culture and that, as would be expected, there are differing opinions about indicators of scientific performance and measuring publications. This panel would submit that if seeking to quantify the number of publications, it is important to use a multitude of metrics, including various points systems and citation indices. It is our impression that regardless of how you cut it, this department performs very well and that there are signs that a good performance has become even better. The documentation provided does not, however, allow any stringent analysis of these matters.

D3. Facilities and research infrastructure

As noted already, the department hosts a range of key research infrastructures of benefit not just to the department and university, but to the wider academic community. There is a concern about the resource implications of managing and maintaining these infrastructures, which needs to be resolved in cooperation with the university.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

The documentation highlights a continuing issue in terms of gender equality, especially at the senior levels of the department. Recruitment at the junior levels only in part addresses the existing lack of gender equality. The department's approach towards gender equality seems to be that the existing imbalance will be addressed over time, given the presence of many more female staff at earlier stages of their career. However, the panel questions this approach and recommends that the department take a more pro-active strategy towards diversity and equality across all areas of departmental staffing.

D4.2 Internationalisation

Since the RED10 exercise, the department has very successfully responded to the call for more internationalisation, in terms of research profile, outward-facing activities, such as publications and conference participation, and inward-facing in terms of recruitment and research culture. The department is already well-connected and highly regarded in the discipline. The self-evaluation highlights potential risks and tensions associated with 'too much' internationalisation, namely a concern with reduced engagement with the Swedish audience. Given the likely changes following the retirement of some senior professors, the department may have to consider more extensively how to continue its strong impact on Swedish public debate. In turn, the review panel also encountered criticism by non-domestic PhD students that seminars were characterised by 'too much Swedishness', especially the General Research Seminar.

SECTION E – SUPPORT

E1. Internal research support and E2. Faculty and University-wide support

The department expresses great satisfaction with the 'outstanding' nature of the internal administrative service and calls for a continuation of such support levels. The documentation calls for a more formalised university approach towards international recruitment exercises and this is something that the university may wish to consider.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

There is considerable evidence that the department has responded to the suggestions expressed in the RED10 exercise:

- International collaboration has increased dramatically, in particular through V-Dem and QoG programmes.

- The in- and outflow of international postdoctoral and doctoral researchers has increased.
- The department can show a record of promoting more interdisciplinary research, especially through CeCAR and CERGU.
- The record of publication appears to have strengthened.
- The number of PhD candidates has increased as well.
- However, the gender imbalance still exists.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

The quality of research at the Department of Political Science is excellent and the department is recommended to go on very much as it has done over the last few years. There are, however, a number of issues that the department should address:

1. Consider whether the department wishes to broaden its portfolio in research and teaching, especially whether it may want to extend its coverage into the area of political theory/political philosophy;
2. Explore whether it is possible to advance, within the given line management structure, the enhancement of accountability and student influence;
3. Explore ways in which the faculty and the university take responsibility for the cost of larger databases and other aspects of established research infrastructures;
4. Carefully balance the potential tensions arising from internationalisation and continued domestic relevance across established and early-career researchers. This includes paying more attention to how internationally recruited junior and senior faculty are introduced to and incorporated into all aspects of academic life, including those that require knowledge of the Swedish language;
5. Continue to recruit the best PhD candidates, regardless of their 'fit' with existing research programmes;
6. Support all teaching staff in the pursuit of their research by granting research time. This may involve agreement with the wider university management;
7. Develop a more strategic and pro-active approach towards facilitating better gender equality.

DEPARTMENT OF PSYCHOLOGY

524	Introductory Remarks
525	Section A – Background and Research Standing
525	A1. Background
526	A2. Research standing
528	Section B – Leadership
531	B1. Leadership
532	B2. Recruitment
532	B3. Career structure
533	B4. Funding
534	B5. Feedback and evaluation
534	Section C – Complete Academic Environment
534	C1. Collaboration
534	C2. Relevance and impact on society
535	C3. Research-teaching linkages
535	Section D – Academic Culture
535	D1. Academic culture
535	D4. Transverse perspectives
536	Section E – Support
536	E1. Internal research support
536	E2. Faculty and University-wide support
537	Section F – Other Matters
537	F1. RED10 evaluation
537	F2. Other matters
538	Concluding Recommendations

INTRODUCTORY REMARKS

As a preliminary remark, the expert panel that was involved in the RED19 evaluation of the Department of Psychology at the University of Gothenburg (UGOT) – consisting of Klaus Fiedler, Louise Rönnqvist and Inger Hilde Nordhus – would like to be explicit about several aspects of the evaluation procedure. According to the instructions received from the RED19 team, we understand that the first and foremost goal is to describe how distinct properties of the academic environment determine the research quality conducted in the Department of Psychology, as well as figuring out how research quality influences education and public outreach. Finally, we were asked to evaluate the capacity for self-reflection, including the ability to recognise strengths and weaknesses, and to suggest eventual remedies or lines of development.

This clear-cut explication of the evaluation task calls for definitions of the independent variable (i.e., academic environment) as well as the dependent variable (i.e., quality of research and teaching) of the evaluation task. Regarding the former issue, our definition of “academic environment” relies on the very facets suggested by the RED19 team. That is, we first of all assume (A) that the standing and the corporate identity of the research teams and the manner in which they interpret and represent their scientific discipline are crucial to understanding the scientific work environment. We also presume (B) that the leadership and governance structure impose important constraints on all strategies meant to support the work environment. Further, (C) a more comprehensive analysis of the complete academic environment involves such issues as collaboration and networking, research-teaching linkages, and relevance and impact of research on society and on a broader public. It can also be instructive to consider (D) the academic structure and to analyse (E) the dependence of academic research on support structures and funding schemes.

Regarding the latter, dependent variable of the evaluation task, the panel definitely does not adhere to a simplified unidimensional model that quantifies quality of research as a linear or monotonic function of either the sheer number of publications or an index of publication impact. Although some basic number of publications and some lower limit of publication impact constitute necessary conditions of productivity, a successful research environment calls for more than just a further increase in quantity and quality of publications. An increasing number of newly founded open-access journals undermine the diagnostic value of a sheer publication count, and the scientific criteria for publication in even high-impact journals are often questionable. To optimise the impact and generative power, the innovative value, and the theoretical potential of a truly excellent research environment, it is therefore necessary to complement measures of basic productivity with such assets as: originality, methodological rigour, sensitivity to major scientific developments, corporate identity, fundraising and grant-based research projects, effective mentoring, established collaboration structures and networking, and success in attracting and inspiring young scientists and students.

Indeed, while no expert panel is needed to assess standard indices of publication and citation frequencies, experts may serve a sensible role in the evaluation of a department within such a multidimensional assessment of research quality. The present panel is well aware of the imperfect objectivity and of the potential conflicts involved in such a complex, multi-dimensional assessment of scientific accomplishments, but we hasten to add that seemingly more objective procedures suffer from the same problems.

Because different weightings of different dimensions of scientific excellence may suggest different action strategies, we refrain from suggesting too many changes in a well-functioning, naturally grown academic system. We rather confine our report to recommending a few distinct improvements that we believe are necessary to conserve and develop the current strengths and to exploit the future potential of the Department of Psychology.

To accentuate these distinct recommendations, we keep our comments to many unproblematic aspects of the Department of Psychology to a minimum. Instead, we provide more detailed comments about what we consider to be essential challenges.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Department of Psychology at UGOT comprises roughly 100 academic staff members, including 15 professors and 11 major research groups (55 ongoing PhD students). It belongs to the Faculty of Social Sciences as one of seven departments, as it is rather common in Scandinavian countries. Its profile differs, however, from a prototypical profile of other Swedish psychology departments in several respects. It gives lesser accent to research in traditional clinical psychology, clinical neuropsychology and neuropsychology, cognitive, and educational psychology. Instead, the Department of Psychology at UGOT puts a particularly strong emphasis on legal psychology, addiction and health psychology, environmental psychology, and development of social mind, cognition and executive functions in typical and non-typical developing children and on adult development and aging research. The research fields of judgment, decision-making, and social psychology as well as work and organisational psychology, are also represented extensively and prominently at the department.

The department is located in a highly functional and well-organised building, including seminar rooms, research labs and facilities, office rooms, and a compact area for administrative functions. This spatial environment contributes to strengthening the identity of psychology as a distinct discipline.

Education at the department is conducted at the undergraduate and at the post-graduate level. The department offers a five-year programme with clinical focus (*Psykologprogrammet*), a shorter programme at master's level in psychotherapy (*Psykoterapeutprogrammet*) and several free-standing courses and specialist programmes. The department also has a psychotherapy clinic where students at the end of their curriculum receive training in cognitive behaviour therapy and psychodynamic psychotherapy, under clinical supervision.

Finally, the department has a PhD programme, including doctoral students in collaboration with external partner institutions (e.g., the mental healthcare and hospital sector). According to the department's self-report, 53 doctoral students have completed their PhD between 2013 and 2017. This large number of successfully completed promotions and doctoral theses testifies to the pronounced research orientation of the Department of Psychology and to its attractiveness for young scientists.

A2. Research standing

In their self-evaluation provided for the RED19 project, scientists working in the Department of Psychology proudly refer to their continued success in fundraising, in conducting original empirical research in diverse areas, and in publishing their research results in highly-ranking international journals and edited volumes. We do not hesitate to confirm this generally positive appraisal of the department contributing to the University of Gothenburg as a leading research institution.

Most prominent in terms of the size and funding volume, and most successful in terms of the overall scientific merits and originality, are the research groups on ageing, the psychology of addiction, developmental psychology, legal psychology, and health psychology. (The latter does not yet constitute a formalised group, though recent strategic recruitment points to a consolidation process). Highly prominent even from an international perspective is the Gothenburg approach to ageing with its emphasis on terminal decline patterns as a key theoretical concept, and solid empirical work relying on rigorous longitudinal designs and data. This stronghold of impactful behavioural science can certainly compete with the most prestigious centres of gerontology and ageing research in the world.

The same compliment is in order regarding the legal psychology research group, which excels both in terms of first-class fundamental science and important applied contributions. Gothenburg scientists are connected with other leading centres of legal psychology in the world, and there is an active exchange of research ideas and young scientists. Current research ideas revolve around such issues as lie detection and interrogation. Their research on these, and on related issues, has been converted to distinct guidelines of appropriate interrogation and has led to the implementation of important scientific insights in legal practice. The legal psychology group has also made a noteworthy contribution to the internationalisation of psychological science in Sweden.

The addiction psychology research group (APEC) likewise performs nationally and internationally successful experimental and clinical research within the area of addiction and abuse. This group closely collaborates with community centres and task forces dealing with addiction and abuse, and with the Centre for Education and Research on Addiction (CERA) hosted by the department. CERA is an interdisciplinary and joint research centre at the University of Gothenburg that is working to strengthen and develop research and education within the area of addiction. The researchers in CERA have been awarded with honours of excellence in external international evaluations for their research.

Reflecting on their own research groups and research strategy, the department jointly emphasises a strong willingness to contribute to answering societal problems and challenges, in accordance with the general strategy of the department. The department leaders and virtually all principal investigators are convinced that the optimal strategy at the department is to trust in the self-organising forces of a flat research profile, motivated by the bottom-up process of impulses triggered by a pluralistic research process. Accordingly, each one of the multiple research groups is driven by its own theoretical ideas and distinct methodologies. The balance between expectations from society to research agendas and theory-driven research ideas originating in the individual researchers' mind is well elaborated in the self-evaluation report. What is less elaborated, though, is how the self-organising forces deal with existing superordinate governance issues and how the implicit decisions and emergent outcomes of the flat leadership structure are communicated and translated into political strategies. This became evident during the RED19 evaluation, as outlined in the paragraphs that follow.

The interviews conducted during the site visit did confirm a self-critical focus on neglected research areas, of which clinical psychology (in particular the lack of research related to the psychotherapy clinic) is a prime example. The panel was informed that the department has a well-established psychotherapy clinic offering supervised clinical training for relevant study programmes. Although approximately 600 patients constitute a chance and an affordance for fruitful psychotherapy research, there is little systematic research and research output along these lines.

This deficit clearly constitutes a challenge for future research development at the Department of Psychology. One might argue, though, that in spite of the existing data base in the patient materials of the clinic, there is an additional need for external research expertise to strengthen both the research agenda and the methodological rigour of clinical intervention research. Another way to exploit the available potential of clinical research at Gothenburg, at the level of specific research groups, might be to join forces with researchers from other research areas and groups within the department (e.g., health, addiction, ageing and developmental psychology). This option was also conjectured by the clinical researchers themselves. In any case, if more effective and substantive clinical psychology and psychotherapy research can be realised, this could create a vital platform of inspi-

ration and interest for clinically-oriented students, some of whom might be more strongly engaged in scientific research activities and in more advanced studies (as PhD students).

Other underrepresented sub-disciplines are neuropsychology and clinical neuropsychology. Although modern and highly fostered in many other universities, neuropsychology research is conspicuously weak and underrepresented in the Gothenburg profile.

A formerly existing focus on psychobiology-/neuropsychology, which was vividly associated with the Department of Psychology at UGOT, has seemingly decreased (due to retirements and movements of PIs) over the last two decades. Current work in neuropsychology is mostly confined to research on neurological and neuropsychiatric disorders. It involves few members of the department, and it is mainly conducted in collaboration with research groups and projects at Sahlgrenska University Hospital in Gothenburg. Still, neurobiological risk factors that underlie alcohol abuse and dependence are essential to psychological research on addiction, treatment effects, and to the understanding of interactions between neurochemical phenotype and behavioural functions.

SECTION B – LEADERSHIP

The present section is devoted to pointing out some potential weaknesses and reasons for interventions and panel recommendations, across all different aspects of leadership. Recommendations will be provided subsequently in separate subsections for different leadership functions, from B1 to B5.

The self-evaluation of the department as a unit adhering to a “flat” organisation structure was in many ways convincing during our meeting with the leadership. Several discussion rounds with the department leaders, PIs, postdocs, graduate students, and administrative staff converged in substantiating the impression that the liberal and pluralistic climate that allows diverse research initiatives to co-exist in the Department of Psychology is key to their success in fundraising, publication, and attracting young scientists. Despite some scepticism at the beginning, and a good deal of discussion among panel members, then, the panel adopted the view that the bottom-up flow of initiatives in this department has been an effective catalyst for excellent research in this academic environment. The panel does not see any reason for changing this flat governance structure, which corresponds well with basic university values, as we know them, within a Scandinavian frame of reference.

Yet, in spite of the general success of, and satisfaction with, the bottom-up structure of the non-intrusive leadership style, it is of utmost importance to supplement these approved governance rules with distinct top-down functions sorely needed to secure long-term needs of the department that transcend the interests of multiple

research units. The panel is convinced that establishing these top-down governance functions constitutes a major developmental task for the near future of the department. Although a smooth and conflict-free leadership style may appear satisfactory and hedonically pleasant, it does not meet all requirements of optimal governance. We were particularly concerned with deficits and unexhausted potential in the following governance functions:

- A major problem lies, no doubt, in the lack of a recruitment strategy for the professorial positions. Although no less than five major professorships have to be replaced over the next few years, and although recruitment in a small country like Sweden has to be prepared actively, there appears to be no recruitment plan. Survival of long-grown research strongholds, and exploitation of the most successful and promising projects, can be contingent on recruitment of scarce human resources. Personnel selection is maybe the most effective lever in science governance. Foregoing the possibility to exert influence on personnel selection strikes us as a serious neglect. We appreciate that one professor and several senior lecturers have been recruited in the last two years, as we have been told lately. However, our critical note here is not confined to any recruitment activities; it emphasises the need to develop a prospective recruitment plan for the future.
- Another most important governance function that calls for democratically approved and transparent top-down rules concerns the division of human resources for teaching and research in general, and the incentives for research funding in particular. Extra funding for successful fundraising and teaching buy-out to compensate for research load are essential tools for a research-oriented university like UGOT. It is therefore of utmost importance to establish distributive justice and democratic peace at a higher level of governance. Department strategies in this regard have to accord to higher-order policies at the faculty level and at the university level. The panel was not convinced that recent changes in the department are in line with the over-arching aims of a research-oriented university that offers incentive for research grants. Specifically, there may be a potential dissatisfaction with a new rule imposed by the Department Chair (implemented in 2019) that obliges fundraisers to spend more work time on teaching than in the last two years, raising the impression in several scientists that fundraising is not worthwhile and is actually being “punished”. Indeed, the teaching load is roughly at the same level as before 2016. (More details about this problem will be provided as part of the recommendations in the next section below). The panel believes that this recently arising conflict is to a large extent due to the unfortunate impression – at least in some department members – that the newly-implemented distribution key for teaching obligations is not rooted in a consensual policy.
- The prevailing trust in self-organising forces of a pluralistic system relies heavily on a well-functioning set of top-down rules for the regulation of several essential academic functions. For instance, one essential superordinate function concerns career structure, that is, clarifying prospects of

and access to tenured positions for scientists and transition from postdoc positions in the university to applied and practical vocational domains outside academia. Our hearings during the site visit showed that younger researchers in particular would appreciate more mentoring procedures related to career development. More generally, the very strength of co-existing research labs, which largely rely on their own autonomous administration, networking and career planning for associated young scientists, creates a relative disadvantage for young scientists who are not associated with these leading research groups.

- Related to the former point is the following. A flatly organised system that is built on the co-existence of naturally grown, successfully implemented research centres and externally funded projects is essentially conservative. It concentrates on fostering given strengths and, at the same time, must somehow neglect the potential of alternative research and creative responses to novel challenging in theory and practice. Therefore, the panel believes that a prominent governance function lies in the coordination of both ongoing and promising future research. Encouragement of innovative, risk-oriented research that is not yet on the safe ground of an approved research grant, and the provision of appropriate structures and opportunities, would be an essential goal of top-down research coordination.
- Further functions and facilities that are of central interest, beyond the scope and domain of specific work groups, ought to be fulfilled at a higher governance level. For instance, there is a need, and a good deal of potential, for data storage and related timely practices of open science, and resources and structures are indeed available at the department to support these functions. Other examples include explicit rules for the financing of open-access publications, or the updating and optimisation of the department's internet representation. These functions cannot be fully met and optimised separately in each and every department.
- Last, but not least, monitoring and control of gender equality is of course a persistent superordinate aim that cannot be deferred to self-organising forces. The panel was impressed by objective indices reflecting successful activities aiming at gender equality. So, rather than reflecting any serious suspicion of gender inequality, the present statement is only motivated by a single junior scientist whose questionnaire data are reminiscent of the wisdom that gender equality should be always kept in mind.

Recommendations

The latent problems and potential sources of weakness we have diagnosed in the preceding section motivated a number of recommendations that will now be presented in the present section. To repeat, our strategy here is to accentuate a few recommendations deemed to be essential, which should not be diluted in an extended list of less essential and less clear-cut suggestions. So, our recommendations deliberately focus on a few distinct changes and interventions that reflect the panel's confident convictions and deepest concerns.

B1. Leadership

B1.1 Department leadership

The panel wants to corroborate the flat organisation and the approved bottom-up flow of ideas and self-organisation at the Department of Psychology. After many discussion rounds with representatives of different layers of the department, the panel is convinced of the assets and the intrinsic advantages of such a non-intrusive governance structure.

Nevertheless, as a complement to this flat governance structure, which nicely mirrors the bottom-up organisation of the naturally grown department, the panel is convinced that a few distinct top-down functions have to be institutionalised. More specific recommendations are spelled out below in more detail, ordered by leadership domains in the sections to follow.

B1.2 Faculty/University level leadership

The coordination of goals and strategies at different levels of an achievement-oriented university is essential for performance at any level. According to our assessment of the current situation at UGOT, these maxims are particularly relevant to issues of co-funding, internationalisation, open science, and strategies to implement and facilitate goal achievement of a truly research-oriented university, which also embraces research-based teaching.

Regulating incentives and associated obligations for external funding is not only relevant to governance at the departmental level but also constitutes a paradigm for aligning departmental strategies with faculty-level goals and university policy. As already stated, the panel believes that the recent increase in teaching obligations for fundraisers in the Department of Psychology is at variance with the emphasis on research that is obviously desired at superordinate levels of governance. If UGOT really wants to unfold its potential as a leading and internationally competitive research university, we believe it is essential to establish fair and comparable rules across all departments. The panel is convinced that governance rules at different hierarchy levels must be consistent, offering equal opportunities to researchers and teachers in different disciplines, especially within the same faculty.

Another issue of distributive justice is inherent in the possibility that co-funding at the university level appears to discriminate between different funding resources. From a scientific as well as a leadership point of view, it is hard to see why excellent research is worth less co-funding when a grant comes from less preferred funding agencies. In any case, related negotiations call for superordinate governance structures that go beyond the confines of specific research groups or centres.

The Department of Psychology must contribute to the establishment of faculty-level rules that create equal opportunities for high-quality research and teaching across all disciplines. It goes without saying that such superordinate rules must cover such structurally essential domains as recruitment, teaching buy-out for successful fundraising, internationalisation, and open-science practices.

B2. Recruitment

As already mentioned, recruitment and personnel selection decisions constitute the most effective tool in the self-administration of a university. Recruitment decisions have incisive consequences for the type and quality of research conducted over decades, for the attractiveness of the department and the entire university, and ultimately for the standing and success of the leading research units.

Our first and foremost recommendation to the leaders of the Department of Psychology is to develop an active recruitment strategy for the near future, given that five professors have to be replaced within the next few years. Trusting in good luck or in a *laissez-faire* strategy – however adaptive it might be under auspicious conditions – strikes us as dangerous and irresponsible.

While the panel does not want to intrude offensively into the department's recruitment policy, we can imagine that it might be appropriate to at least consider the possibility of devoting a professorial position to clinical research (if only to exploit the evidence arising from examinations and therapeutic treatment of 600 or so patients). We also believe that conserving the extremely high standing of Gothenburg in ageing research, in drug and addiction research, and in legal psychology must be valuable goals that call for an active recruitment policy.

The panel believes that recruitment policy and structural planning more generally constitute a permanent coordination task between department and faculty. Recruitments in one department should take the interdisciplinary context of other departments in the faculty into account. Conversely, the faculty should approve structural planning and action and solicit relevant forecasts (e.g. recruitment plans) from the departments at regular intervals. Frankly speaking, the panel found that the non-existence of any explicit recruitment plan in the current state of the Department of Psychology also reflects a monitoring neglect at the faculty level.

B3. Career structure

Although there was no urgent problem or deficit in career planning, the department may demonstrate career planning more clearly both by arranging seminars on the topic as well as introducing this as a prominent issue for individual mentorship. In particular, younger researchers call for mentoring procedures related to career development, both at the departmental and faculty level.

Three maxims for optimal career structure policies are the following:

1. There ought to be a reasonable chance to do research for everybody in the department.
2. Risk-oriented research and innovation should be encouraged and facilitated.
3. Of particular importance is support for transitions between career levels.

B4. Funding

As already mentioned in the introduction to Section B, leadership calls for a genuinely democratic style, obliged to distributive and procedural justice. In this regard, we have already outlined a potentially quite serious source of conflict arising from the re-establishment of very high teaching load for researchers who were successful in generating external funding. In January 2019, only two years after the teaching obligations for active fundraisers had been massively reduced, the current Department Chair largely re-established the old teaching obligations, stemming from a time before the commitment to research incentives. The pertinent figures (changing teaching load for researchers with 30% external funding between 2016 and 2019) are indicated here:

	Until 2016	From 2017	From 2019
Professor recruited	420	0	357
Professor promoted	588	340	595
Associate Professors	756	510	714
Senior Lecturers	756	595	714

Apparently, the newly reintroduced teaching obligations are almost as high, and for some groups higher, than prior to 2017.

The site visits revealed that many scientists in the department were highly dissatisfied with and emotionally upset about the high teaching load. The panel understands that the greatly reduced teaching obligations between 2017 and 2019 put strong constraints on the department budget and on the teaching administration. The panel does not want to intrude into the specific way in which the conflict and dissatisfaction will be resolved. However, we strongly suggest that the department tackle this problem in a way that simultaneously considers (a) the need to compensate for the extra load of successful fundraisers with extra obligations and also (b) the maxim that core teaching activities (fundamental lectures and seminars) should be conducted by the most experienced, senior, and charismatic scholars. It is thus also essential that active and successful researchers also get into contact with students.

Another comment concerning internal funding policy is the following:

While the internal funding conditions are almost ideal, it is evident from the Psychology background data presented that professors funded by block grants sources (during the time period 2013–2017: Staff Data, Table 4) for doing research work have been consistently higher for male professors in comparison to their female counterparts. Consequently, the female professors (as a whole) have to allocate somewhat more of external funding for costs related to their own time allocated for research work within their position as full professor (thus, instead of using the limited grants sources for recruitment of PhD students, research networking or other research-related costs).

This in fact may also relate to the concerns regarding the use of a model that allows different terms of employments for full professors; by means of promoted and recruited professors. This model that in reality generates different prerequisites for time allocated for research work (financed by block grant). Thus, a seemingly unjustified model seems to treat (female) professors more negatively. Additionally, this model apparently does not stimulate recruitment strategies for external professor candidates, and thus, may have long-term negative consequences for research quality (not just at UGOT but also at other Sweden universities/departments where such models of professor employment are in practice).

B5. Feedback and evaluation

The panel believes that feedback and evaluation are important facets of self-regulation in academic environments. However, feedback and evaluation need not be installed as extra functions; they are naturally built into the presentation and publication of research results and the evaluation and discussion of lectures, seminars and teaching encounters. The annual staff conferences provide further excellent opportunities to exchange feedback and to learn from social comparisons of various kinds. There is little need to supplement these intrinsically conveyed feedback and evaluation functions with other, institutionalised feedback channels, which may appear patronising, ill-motivated, and conflict-prone.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

It appears from the self-evaluation that the Department of Psychology has extensive collaboration within the university, nationally and internationally. Many researchers and their respective groups are partners in centres hosted by other departments and faculties. The Department of Psychology is itself host of one centre with collaborating partners from various societal arenas (e.g., health institutions and law enforcement). This also involves outreach to society in a wider sense (e.g., media). The panel does not want to offer any novel recommendations for interventions regarding the type and density of collaboration structures.

C1.2 Collaboration with external stakeholders

(The panel has not separately addressed this question).

C2. Relevance and impact on society

The panel is convinced that the prevailing applied research topics pursued in UGOT's Department of Psychology are eminently relevant for society as a whole. The colleagues working in the department are aware of this role, and like public encounters and chances to consult and teach a broader audience.

The only qualifying remark that we encountered during the site visit was that too high a teaching load can restrict the time available for public presentation.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

The Department of Psychology at UGOT is in the enviable position of having a highly-qualified and efficient unit for research administration, the potential of which is not yet fully exploited. There is room for improvement in data management and in the coordination of administrative functions. Teaching and research-based teaching should profit from better exploitation of these existing structures.

More seminars (and/or courses) should put an emphasis on advanced qualitative methods (applied / clinical psychology) to stimulate and straighten the prevailing applied research focus and their doctoral students' comprehensive knowledge.

In general, though, the hearing of doctoral students and postdocs during the site visits led the panel to conclude that doctoral education is strong, both in terms of objective indicators and subjective appraisals.

C3.2 Doctoral education

(The panel has not separately addressed this question).

SECTION D – ACADEMIC CULTURE

D1. Academic culture

The panel does not see any reasons for recommending changes to the academic culture, to publication strategies, facilities, and infrastructure. As repeatedly emphasised, research projects and publication activities are flourishing and the naturally grown facilities and infrastructures can be considered strong assets that can hardly be improved through external interventions.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

There were hardly any complaints about gender inequality during the site visit. The panel was impressed to read in the self-evaluation report, for instance, that "*Since 2015, men and women have received in total SEK 44 and 54 million, respectively, in funding as head applicants.*" Moreover, "*12 women and 13 men received over SEK 1 million in external funding.*" These figures are reflective of more effective gender equality than in many other comparable places.

There are only a couple of notable qualifications. First, a questionnaire presented by one advanced student that raised suspicion about unrecognised gender inequalities was immediately taken up by the Department Chair, who was open for all pertinent observations.

Second, although there is an approximately even gender distribution among the teaching staff, this does not hold for the senior professorial level. All professors of age 60 or above are men. As suggested in the department's self-evaluation, "*we believe that this difference in numbers of men and women will disappear in time if current recruitment strategies are pursued.*" The panel tends to agree and trusts in the department's open-minded and gender-neutral attitude.

D4.2 Internationalisation

Although the number of non-Swedish staff members and doctoral students is quite restricted, and seminars held in English remain the exception, the open-minded cosmopolitan climate in Gothenburg is appreciated by the minority of non-Swedish department members as very attractive and well-suited for international exchange. Moreover, a new international master's programme will be started soon.

As the salaries in Swedish universities tend to be low by international comparison, it would be unrealistic to expect UGOT to be flooded with international doctoral students and researchers. The situation will be never comparable to, say, Switzerland or the Netherlands. However, by all standards, the tendency to publish research papers in international outlets, the striving for international funding, the presence at international conferences, and the inclusion of international researchers, where it is appropriate, testify to considerable success along the internationalisation criterion – in line with the advice of the RED10 report.

SECTION E – SUPPORT

E1. Internal research support

The panel appreciates the existing structures and available resources for internal research support. Co-funding can be so important to compensate for heightened overhead costs, for instance, to allow young scientists to visit international conferences and maybe to engage in exploratory research beyond the official projects funded by a grant. However, our critical comment concerning the balance of research interests and teaching load should be kept in mind.

In general, the panel was pleased to see that the budget available for internal research funding seems to be sufficient and supportive of productive research.

E2. Faculty and University-wide support

The very existence of co-funding is certainly a strength of a research-oriented university, the declared goal of which is to reinforce fund raising and research-based teaching. Co-funding in principle serves the function of performance-contingent support.

Unfortunately, though, the procedure of co-funding does not appear to be optimal, because receivers of different grants are not treated equally and the reasons for

discrimination (i.e., for co-funding to discriminate between funding sources) are not transparent. Even when these suspicions are based on wrong assumptions, it would be important to erase such rumours, which may be demotivating and incompatible with scientific rules of fairness.

A more fundamental problem concerns the allocation of block money for research, which relies on a weighting scheme of research accomplishments (publication, fund raising, PhDs) that is considered questionable. This problem was a major topic in the RED19 meeting at faculty level.

Our recommendation is to render the strategies and algorithms of block-money allocation and co-funding as transparent and democratically fair as possible.

It is essential that the superordinate goals and principles of university-wide funding must not be counteracted or undermined by department-level rules or resource allocation (see B4 above).

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Overall, the Department of Psychology has been responsive to the recommendations of the RED10 panel, as summarised in the department's RED19 self-evaluation. Significant structural changes in research administration and organisation have apparently led to general improvement and progress in the quality of research and teaching: The apparent purpose of these changes was to allow all colleagues to spend more time and focus on their actual core tasks; to improve the productivity of research by generating more external grant money and increasing manifest research results, publications, and collaborations; but also the effectiveness of education, in line with the suggestions provided in the RED10 evaluation.

The RED10 report suggested that:

- national and international collaboration and recruitment should be fostered;
 - postdoctoral and early-career training should be strengthened;
 - the number of highly specialised, under-staffed research groups should be reduced;
 - interdisciplinary research be cultivated; and
 - rules of best practices should be disseminated and implemented widely.
- We believe that the department has made a serious attempt to comply with these recommendations.

F2. Other matters

There are no other matters to be included in the panel report.

CONCLUDING RECOMMENDATIONS

Let us finally summarise what the panel considers to be the most important feedback to the department and the most important recommendations to be reflected within the department and within the faculty:

- The panel's overall evaluation of the scientific standing is replete with compliments and admiration for the research accomplishments that are visible in the quantity and quality of publications, fundraising, and original contributions to science.
- We have been convinced that the flat profile of the department and the corresponding bottom-up structure of the self-organising research environment constitute assets that strike us as appropriate to the pluralistic research spectrum and as a functional property of the department that should be maintained.
- However, despite our general appreciation for the naturally grown infrastructure of the department, our most pronounced and distinct recommendation focuses on the need to supplement the flat governance structure with distinct top-down steering instruments. We have particularly pointed out that it is of utmost importance to develop strategies and institutional procedures and committees for the following superordinate functions:
 - Recruitment policies must be defined and implemented and very important recruitment decisions for the next few years must be prepared. This is certainly a high-priority recommendation.
 - To balance the conservative forces of a dominant establishment of renowned and successful research strongholds, the Department of Psychology should beware of the need to support innovative and risk-oriented research initiatives that are not yet established.
 - In addition to issues of gender equality and the need for mentoring at all levels of career development, top-down instruments should be used to exploit the existing potential of administrative support, such as data storage and facilities that foster good scientific practices.
- Last but not least, we strongly recommend all subgroups of the departments to keep in mind that a well-functioning academic self-administration must be built on collegial interaction and democratic structures that oblige everybody to cooperative problem-solving and mutual respect. In a genuinely cooperative environment, dealing with a transitory conflict (like the one depicted above) becomes a chance to learn and to grow, rather than a source of lasting dissatisfaction.

30 April 2019,

Klaus Fiedler, Louise Rönnqvist and Inger Hilde Nordhus

DEPARTMENT OF SOCIAL WORK

540	Introductory Remarks
540	Section A – Background and Research Standing
540	A1. Background
540	A2. Research standing
542	Section B – Leadership
542	B1. Leadership
544	B2. Recruitment
544	B3. Career structure
545	B4. Funding
546	B5. Feedback and evaluation
547	Section C – Complete Academic Environment
547	C1. Collaboration
548	C2. Relevance and impact on society
549	C3. Research-teaching linkages
550	Section D – Academic Culture
550	D1. Academic culture
551	D2. Publication
552	D3. Facilities and research infrastructure
552	D4. Transverse perspectives
553	Section E – Support
553	E1. Internal research support
554	E2. Faculty and University-wide support
554	Section F – Other Matters
554	F1. RED10 evaluation
555	F2. Other matters
556	Concluding Recommendations

INTRODUCTORY REMARKS

The members of the panel individually reviewed the documents provided and reported their assessments to the chair. A joint draft of the report was put together in mid-March, and questions for the site visit were prepared. The chair gave the panel's feedback and questions to the department, in preparation for the site visit. During the site visit questions were asked and open discussions held with different categories of representatives from the department: the management team, research leaders, junior researchers, and senior lecturers doing some research parallel to extensive teaching. During the site visit week, the panel wrote the main assessments as a group. Thereafter the chair completed the report and the other panel members adjusted and commented until we all were satisfied and could say that the report is representative of the panel's impressions. The report is thus a joint product of the whole panel.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Social work has been part of the University of Gothenburg (UGOT) for more than 40 years and is both a well-established discipline and a large department within the Faculty of Social Sciences. Yet it has some specific characteristics in relation to other departments in social sciences. The education and training of social workers dominates the work at the department, which brings preconditions that differ from departments without a mandate of professional training.

The Department of Social Work is large, but seems to have an appropriate amount of human resources. The leadership structure is collegial in the sense that all department leaders are recruited among the colleagues. Collegial influence is upheld through advisory boards, but without collegial decision-making. Formal decisions are made by the leaders after consultation with colleagues in specific committees. Decisions on research are mainly made by individual researchers, and approved by the Head of Department. This means, for example, that funding applications are initiated and written by individuals and groups and signed by the Head of Department. Anyone who wants to apply for funding is encouraged to do so, and groups entailing collective collegial support are arranged when appropriate. While this has shown to have good results concerning individual grants, there are no larger programmes in the department. The loose structure leaves plenty of room for individual initiatives. At the same time this structure could be considered vague and hard to grasp for new lecturers in the contemporary shift of generations.

A2. Research standing

The department has a wide variety of research areas or research topics, with eight areas/topics highlighted in the self-evaluation. The diversity in research topics is a strength, especially in relation to the wide realm of social work. The department

is undergoing a shift in generations, with full professors retiring, and the former structure of “chairs” with different themes also changing. Currently only one such chair remains, with the theme of Parenting, Children and Youth in Modern Family Cultures. Most full professors are now promoted from senior lecturers in the department, and due to promotions, the focus of the research areas is somewhat shifting. The research groups are open and loosely organised around themes and areas of research, which means that researchers can be part of one or more groups. Activities in the groups vary, but are related to e.g. the field of research in question for the group, discussing texts in process, having methodological workshops, inviting guests, etc. Funding is not connected to the groups and they are not organised around projects. There are no specific areas of research identified as having particular importance. Rather, the governing idea is to foster a wide variety of studies in order to support the wide realm of social work practice that is useful and relevant, including for the education of social workers.

It is important to underscore that the department is involved in relevant and rigorous research in central and important areas of social work, meeting high international standards. There has been a growing number of publications in highly-ranked scientific refereed journals. At the same time, department researchers continue to publish (in Swedish) in publications aimed at practitioners, and continue to take part in public debates on issues related to their research. The department’s researchers have a very good profile related to disseminating their results in a broad variety of channels and to a broad range of target groups.

A challenge for the department is the aim to combine the richness of diversity with the strength of a common and strategic vision. The emphasis of social work education in the department is the foundation of a common base, which ensures the relevance of research conducted. Research appears to be less prioritised in the department as it is more individually based in comparison to the more collective work with respect to social work education. While maintaining wide and broad areas of research is important and strategic, an explicit research strategy, which is currently lacking, would provide a stronger and more effective structure for the department’s research.

The research topics undertaken by the Department of Social Work are current, relevant and show future potential. Department members’ research integrates theoretical and methodological knowledge. The department has well-developed traditions through which to disseminate knowledge both within academia and geared for the community and social work practice. The international collaborations and results forecast important research benefits for the department in both the medium and long term. The majority of research projects tend to be single case studies through small grants and short-term funding.

There is no doubt that the Department of Social Work must continue in the current direction, which the upcoming staff renewals should further foster. Nevertheless, there is a need for a clear strategy, more structure and more explicit support for research, through which larger and more long-lasting projects could be built.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

The management team includes two full Professors, the Head of Department and the Deputy Head of Department responsible for research. The Deputy Head of Department responsible for PhD education is an associate professor and the Deputy responsible for education and internationalisation is a senior lecturer. In 2018, as one of the full Professors assumed the position of Pro Dean in the Faculty of Social Sciences, the leadership for research and PhD education was allotted to two leaders. In line with that decision, the former Board for Research and Doctoral Studies was reorganised into a focus on doctoral education. In relation to the RED19 self-evaluation a new group was created, consisting of one full Professor and four researchers at different stages in their careers. The plans is for this group to continue with the strategic work based on the outcome of RED19.

Leading positions in the department are consequently distributed among staff at different academic levels. While some full professors have leadership roles, these are not necessarily connected to the professorship as staff in other categories may hold similar positions and not all full professors have assigned roles and functions. Academic and management leadership are therefore not inevitably connected.

The department has eight full Professors and 15 Associate Professors. Most Senior Lecturers are involved in research to some degree. All academic staff teach. The department has an open climate with positive interactions among staff, through which ideas develop and new research themes and collaborations are built. These interactions happen in relation to research activities and to a strong degree through activities related to education and at social events. Ensuring inclusivity and transparency is central to department leadership. As information is not always known by the staff, the possibilities for development are not always used as the staff cannot take full advantage.

Researchers who apply for funding receive collegial support and are assisted through funding by management. There is a lack of support, however, for complex applications and for keeping updated on possible funding sources, resulting in the researchers needing to manage on their own. With the exception of assistance with budgets, there is a lack of help for the extensive work involved in developing research applications. In its self-evaluation, the department expressed the idea of employing a Research Administrator, in order to provide better support for the researchers.

Strengths

- Develops a very positive working climate and aims for transparency.
- Aims for wide communication internally and externally.
- Open for individual initiatives.
- Intent to have a link between research and education.

Weaknesses

- Education is prioritised, with research appearing to be less of a focus.
- There is a diffuse structure for research, lacking specific directions.
- The research groups are loosely organised, lack funding for activities, and lack a more formal acknowledgement.
- An infrastructure or strategy for research is lacking.
- Lack of administrative support for researchers.

Recommendations

- The department leadership has very good intentions that should be actualised into a more explicit strategy.
- The department should make it a priority to operationalise the idea of employing a Research Coordinator with the task of implementing the research strategy and supporting researchers in preparing applications, finding resources, working with partners, etc., and finding ways to build smaller projects into more extensive and long-term funding.
- Decisions about the structure, funding and strategies for research need to be taken and the promotion, support and guidance of research should be more explicitly integrated into leadership roles.

B1.2 Faculty/University level leadership

The department has limited interaction with the university and faculty regarding research support. The Pro Dean of Research holds that role part-time and is a part-time Professor in Social Work, which provides a connection between the department and the faculty. Based on the self-evaluation and the interviews it appears that the department should, and mostly can, manage on its own except in specific cases, such as for example when applying for EU grants. The department's Deputy Heads, with responsibilities for PhD education and for research, respectively, have regular meetings with colleagues in comparable roles in other faculty departments and with the Dean.

Strengths

- Offers support for some applications, especially EU funding.
- Good library.

Weaknesses

- Support for applications is not sufficient and not tailored for social work research.
- Individual researchers do not receive sufficient support.

Recommendations

- Support and advise the department in doing research in their areas so that their ability to conduct research increases.

B2. Recruitment

The Department of Social Work is undergoing a shift in generations, entailing both a loss and gain in staff members. On an annual basis, there have been open positions for Senior Lecturers and the department has been successful in recruitment. This process has increased the department's internationalisation as some of the new staff members obtained their PhDs in universities abroad. Consistent with the situation for the discipline, the department has not been successful in recruiting new full Professors and has decided to focus on internally promoting full Professors. Associate Professors are assigned tasks related to more strategic work and Senior Lecturers are encouraged to seek promotion, first to Associate Professor, and then to full Professor. Continuing to recruit full Professors is mentioned although not highlighted.

Strengths

- An attractive department without problems recruiting, despite the lack of qualified PhDs in social work in Sweden.
- Good prospects in career development as there still is a right to be promoted to full Professor.
- New colleagues are very competent both in teaching and receiving grants, and they bring new areas of research which enhances the department.

Weaknesses

- The department is undergoing a shift in generations, which implies a need to mentor more junior staff.
- Beyond gender, other diversity factors are not explicitly considered in recruitment.

Recommendations

- In constructing a research strategy, the department should consider whether to recruit new full professors, and if they should be (as they have been traditionally) aimed at certain areas rather than being more open. Any way would work, but it would be a good idea to recruit full professors through competition, even if some of the applicants would be from the department.
- Establish a policy of visiting professors in social work, which can meet current needs and may not exist in the future.

B3. Career structure

The department has a “docent programme” for Senior Lecturers in order to facilitate and motivate them to seek promotion to Associate Professor. There are various collegial workshops on funding available, and there is funding for staff to attend conferences, if staff ask the management. In addition, costs for language editing of publications are covered. Although there is a high level of international activity in the department, few faculty members have been involved in external term mobility such as postdocs. Many, however, take part in shorter international exchanges for which travel expenses can be covered. Teaching takes the majority of junior faculty's time, which makes it challenging to keep up-to-date with research,

despite their strong desire to do so. The department leadership is aware of this, and is trying to find ways to facilitate research opportunities for newer staff, even if more effort is required to guide and facilitate their progress, especially for those who did not complete their PhD in the department. It is noteworthy that there are several examples of younger/newer Senior Lecturers who have been invited onto research projects by colleagues, which is a way that support is promoted by the department.

Strengths

- There is support to become an Associate Professor, through a “docent programme”.
- There is a right to have qualifications assessed for full professorship.
- The integration of research and education is good for academic staff (as long as there is room for both, in practice).
- There is support for international exchanges.
- There is gender equality.
- Department faculty and leadership are described as welcoming to new staff.

Weaknesses

- Education and administration take the majority of faculty time, and are “prioritised”, which can lead to efforts to obtain research funding or pursue research suffering.
- It can be difficult for newly-recruited and young scholars to navigate the research environment.

Recommendations

- Mentors for newly-recruited and young scholars to help them navigate developing their research and to help them join research groups and projects.

B4. Funding

The internal funding from the university via the faculty mostly covers basic tasks, staff and activities within the PhD programme and time for research for certain groups. The more flexible part of funding concerns external grants. The department is fairly good at obtaining external funding – mostly smaller grants, with some more comprehensive projects which involve only some researchers. Researchers participate in projects for which the funding is situated at other departments or other universities. Despite its size and extensive research activities, the department has no funded large research programme. There seems to be a need for active support to facilitate staff developing larger research applications. Alongside this is the need for support to enable development of smaller case studies, such as pilot studies working towards funding of larger projects. Currently, there is no obvious strategic tradition or plan to build smaller projects into larger and longer-term projects. There are problems covering overhead costs for smaller projects, which means such projects are costly for the department, another reason these should be regarded as stepping stones for future grants, in order to be relevant.

Strengths

- Good at obtaining research grants; most are small, but some include groups of researchers in longer-term collaborations.
- Good encouragement of seeking external funding, such as seminars / discussions on ideas for applications.
- Several researchers are involved in collaborative projects.

Weaknesses

- Weak active support for finding possible sources from which to apply for funding and for writing the applications in a way that improves chances of success.
- Lack of internal grants.

Recommendations

- There should be encouragement of staff to take the lead in a greater number of collaborative projects.
- Support for developing smaller grants into larger, more comprehensive and longer-term projects.
- A stable strategy to cover the overheads of minor funders.

B5. Feedback and evaluation

The positive and encouraging environment in the department is evident through the celebration of new (larger) grants. Before this was the case for publications, but with an ever-increasing amount of publication comes less attention for each. Little attention is given to the outcomes of research. Still, information is communicated internally and externally and research performance forms part of everyone's individual development discussions with the leaders.

Strengths

- Accepted grants and new publications are acknowledged by the department, grants are celebrated and information about publications is communicated.
- Research performance is a component of each staff's annual development discussions with the leaders.

Weaknesses

- Research achievements are not highlighted. Some staff stated, "the 'wow' is missing".

Recommendations

- It is important to praise researchers more for both their efforts and results, in order to encourage them to keep up the good work in a highly competitive environment.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

The Department of Social Work has extensive, wide and varying collaborations with partners in other departments/disciplines and at other universities in Sweden, as well as in other countries. Department staff are active in international Social Work bodies. Further, researchers in some areas, such as Age or Youth, are members of collaborative projects and networks. More researchers are part of Nordic networks and some are widely engaged in collaborations with researchers in the UK. The department has several agreements within the framework of the Erasmus programme, mainly focused on teaching, and there are long-term collaborations with universities in Rwanda and Uganda related to PhD education. Most collaborations are a result of individual initiatives.

Strengths

- The department has very well-developed collaborations with several Swedish and international universities.

Weaknesses

- Very few researchers have spent time at universities abroad (e.g., postdoc, etc.)
- There are few set structures for collaboration, which is primarily dependent on individuals.
- Collaboration agreements are focused on education.

Recommendations

- Consider developing ways to fund visiting scholars (both incoming and outgoing).

C1.2 Collaboration with external stakeholders

The Department of Social Work is very strong with respect to collaborations with external stakeholders and has an extensive network in social work practice, mainly in relation to the City of Gothenburg, the region (VGR) and Sahlgrenska Academy. Collaboration concerns all aspects of department activities, including education and field placements for students, further education for practitioners, joint PhDs, and differing forms and sizes of research projects.

Strengths

- The department has very good collaborations with external stakeholders related to social work practice, funding of smaller research studies and co-funded doctoral students.
- A full professor is assigned to research in close collaboration with practice connected to state funding for applied welfare studies.

Weaknesses

- It can be difficult to obtain funding for overhead costs for research in practice.
- Clinical, or practical, social work is not studied much, which does not facilitate enhancement of practice skills through research.
- Interventions studies require longer-term (and hence more) funds.

Recommendations

- The assignment for applied studies in collaboration with practice should consider all areas of social work and be more proactive.

C2. Relevance and impact on society

The discipline of social work, as well as the Department of Social Work's activities with respect to education of social workers, extensive collaborations, etc., position the department close to society and societal issues. Studies concern social problems, situations and interventions that are relevant for social work practice and society at large. Information on ongoing work and research results are regularly disseminated through lecturers and publications. Lacking, however, are more strategic ways of dissemination. The culture in the department encourages both high-quality scientific publications in refereed journals and publications in popular forms, such as media and newspapers, and debates. As pointed out in the self-evaluation, there is a need for a clearer support strategy to better interact with bodies in society.

C2.1 Management and support

Strengths

- Fosters broad areas of research, which is needed and relevant in reaching diverse groups in society.
- Department research concerns areas of high interest and importance in society.
- Participation in media is encouraged.
- The need for varied ways of communicating is acknowledged and there are concrete plans to increase dissemination of information internally and externally.

Weaknesses

- The lack of core strategies provided to the department regarding research.

Recommendations

- The importance of dissemination would be a central role for a Research Coordinator.

C2.2 Research relevance and impact on society

Strengths

- Publishes in Swedish for reaching practice.
- Strives to stay relevant for a wide range of practice areas in social work.
- Participates in public debate and disseminates research through media.

- High ambitions to integrate research results in the education of future social workers.

Weaknesses

- Relies on individual efforts.

Recommendations

- Researchers require systemic support for dissemination.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

All academic staff teach and the majority of teachers are Senior Lecturers with at least some involvement in research. The ongoing development of a master's programme includes an aim for more distinct linkages between courses and programmes at the undergraduate-, graduate- and post-graduate levels. PhD students teach to some extent, and as such, are part of the teaching staff, which builds bridges between colleagues (in different roles) in the department.

The department's PhD programme has had difficulties in finding funding, resulting in a low number of students. Since 2014, faculty grants have been used to appoint at least five PhD students every second year. The self-evaluation reports that there are currently 27 PhD students and 26 supervisors in the department, and concern of losing expertise in PhD education through the generational shift taking place.

Strengths

- All courses are research-based and all researchers teach.

Weaknesses

- Courses are not directly connected to the instructor's research, other than in specific cases depending on the individual.

Recommendations

- Continue working towards better conditions for each researcher/instructor to keep up both research and teaching.

C3.2 Doctoral education

Strengths

- A good number of PhD students.
- An open and creative atmosphere.
- Doctoral students can develop their ideas for projects.
- Excellent collaboration with three other universities on a programme of doctoral studies, with the purpose of involving professionals working in social services.
- PhD programmes in collaboration with practice.

- Most professors are involved in the doctoral programme, as supervisors and/or teachers.
- Prior to supervising, must pass course on supervising PhD students.
- PhD students encouraged to present results at international conferences, etc.
- Admittance of groups of PhD students gives them a context.
- PhD students are welcomed in all research groups.

Weaknesses

- Doctoral students need support to navigate senior researchers' activities, as they have to focus on their own project.
- The openness for doctoral students to construct their own project at the same time risks leaving them partly "alone".
- Doctoral students require help to become a teacher and to combine teaching and research.

Recommendations

- A more explicit research agenda for the department would make it easier for doctoral students to navigate the research environment.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

On the one hand, the department is an overarching unit, and on the other hand there are groups for different research areas and various clusters of colleagues that meet and discuss. The level of structure is very low and very collegial and friendly, and at the same time vague and hard to grasp. There is the potential to receive support for promotion and to maintain a generally positive working climate with room for comments and discussions. The vague structure can be difficult to navigate, particularly for new colleagues, as information may not reach everyone.

Strengths

- The very positive working climate is conducive to academic work.
- The effort to pursue common and broad research interests and to let researchers find new partners within the department is creative.
- The department is built on collaboration and trust, rather than internal competition. Trust leads to sharing work and reading each other's papers and grant applications to make them as strong as possible.
- There is an attitude that it is acceptable to express critical views and that it is important for others to listen.
- Senior Lecturers/academic staff can apply for one month of "writing time" (to become Associate Professors).
- Seminars are held on developing and processing applications and publications.

Weaknesses

- Lack of systematic support makes the culture vague.

Recommendations

- It is important to maintain the very positive and good collegial climate within the department.

D2. Publication

The academic culture promotes individual researchers to seek external funding, publish in a wide variety of venues, take part in international exchanges, etc., and there has been an increase in publications as well as in research funding and media exposure.

D2.1 Publication strategy

Publications are increasing every year, which is excellent.

Strengths

- Publications in both English (for the academic community) and in Swedish (for students and practitioners).
- Offers considerable forms of support to facilitate publication, such as covering the cost of editing/proofreading manuscripts in English for those who lack funds.

Weaknesses

- Lack of a formal publication strategy with an associated incentive system, not necessarily financial.
- Most academic staff are teachers with little time to conduct research and publish.

Recommendations

- A Research Coordinator could provide support, which could help enhance ambitions.

D2.2 Analysis of bibliometric data

Strengths

- The number of publications in prestigious refereed journals is increasing.
- The department has the expert knowledge needed to publish in high-impact journals.
- Publishing is recognised by management and colleagues.
- Researchers participate in public debate based on their research results.

Weaknesses

- The high production of journal articles in 2017 is linked to a couple of very committed persons.

Recommendations

- Career planning and mentoring, including for associate-level professors, could help them increase their output.

D3. Facilities and research infrastructure

Collegiality stands out as the most obvious and critical supporting “infrastructure” for researchers in the Department of Social Work. A more solid infrastructure is lacking, however. Certain resources seem to be sufficient, such as the library and IT services, whereas staff do not know about other supports, or these are lacking or are not aimed at the kind of research carried out in this department.

Strengths

- Collegial support is essential for keeping up the enthusiasm and productivity, as well as education of social work practice.

Weaknesses

- The lack of formal structures and strategies leads to confusion among younger researchers and among more newly-employed staff.
- There are some resources that seem to exist about which staff do not know and therefore not used as much as they could be.
- The support from higher levels in the university is not always sufficient and therefore researchers are left on their own.

Recommendations

- Clearer structure and more explicit strategies will facilitate the use of existing infrastructure.
- A Research Coordinator could facilitate departmental work and the ability of researchers/staff to obtain more external grants.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Two thirds of the teaching and research staff are women, including doctoral students. Four of eight Professors are women. In relation to the general ambition of equality, there is a fairly high level of women in all positions. In relation to the discipline, there are increasingly fewer women higher up in the hierarchy, which is not specific to UGOT. There are good opportunities and activities for promotion of women’s careers, which have shown good results and the number of women in higher academic positions has increased.

Strengths

- In recent years, promoting equal opportunities and gender equality has been a high priority for the department.
- Follows the gender mainstreaming initiative of the University of Gothenburg.

Weaknesses

- Diversity in aspects other than gender is not highlighted.

Recommendations

- Continue the ongoing work.
- Acknowledge also other aspects of diversity.

D4.2 Internationalisation

The Department of Social Work has a high international profile and engages widely in international collaborations and exchanges. Several projects concern international collaboration in education at different levels. This is to a large degree upheld via individual engagement. Despite its high international ambitions, the department mainly works in Swedish. Seminars are held in Swedish and the PhD programme is in Swedish. English is used in specific situations, such as when someone who is not Swedish-speaking attends, and in the international master's programme. Therefore, even if Swedish dominates the department's activities, English is well-established as a working language.

Strengths

- It seems that the department has made a good start – participating in international research organisations, etc.; numerous projects; influx of researchers to teach and collaborate; and collaborations on degrees with other schools.
- The plan is to strengthen relationships with a strong research university in the US and in Europe.

Weaknesses

- International contacts are mainly developed and maintained through personal and individual contacts.

Recommendations

- Continue fostering international collaboration and aim for broader engagement in the department.

SECTION E – SUPPORT

E1. Internal research support

Research support exists, but as in other cases, it most often depends on individual initiatives and networking. The vague structure is challenging with respect to enabling individuals to obtain support. The available avenues of support are not always known and therefore appear to be underused.

Strengths

- The department clearly makes it a priority to provide support.
- An identified suggestion is *“a specially assigned research administrator who throughout the research work assists not only with budget issues, but also with a strategic planning effort.”*

Weaknesses

- The available departmental support is not sufficiently communicated.
- Lack of comprehensive administrative support regarding research.

Recommendations

- Prioritise comprehensive administrative support through the hiring of a “Research Coordinator”; and increasing knowledge on funding opportunities and technicalities in application work, quality enhancement of proposals, and support for dissemination of research. A Research Coordinator can help with all of these activities.

E2. Faculty and University-wide support

Strengths

- There are good library resources.
- There are existing resources and support for the development of funding applications.

Weaknesses

- The support given is not sufficient and not specific to social work research.

Recommendations

- In order to meet the needs, resources should be tailor-made for the discipline.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The recommendations from RED10 are presented below, number by number, followed by comments on their progress.

1. *Foster national and international collaboration and recruitment from outside UGOT.*
There has been a significant change of staff and recruitment of Senior Lecturers from other universities in both Sweden and other countries. This is not relevant for full Professors, for whom recruitment has been through internal promotion.
2. *Strengthen flux of postdoctoral and early-career scientists from and to the university.*
Some progress in staff with postdocs in other universities and recruiting early-career scientists from other universities. There are however, very few post-doctoral positions in the department.
3. *Review departmental and faculty-level structures and, where appropriate, reduce the number of highly specialised and under-staffed research groups.*
This was not previously, and is not currently a problem for the department, in which the high load of teaching dominates and all academic staff teach.

4. *Foster the dissemination of best practice within the university in relation to research and research planning.*

Since 2010, there has been a focus on best practice in relation to research and research planning.

5. *Promote interdisciplinary research both within the university and in collaboration with European and international partners.*

This has not been an issue as social work is interdisciplinary and the department has long had a broad and varying network of partners.

In RED10 a specific concern for social work was the then shrinking PhD programme. The department has been successful in its efforts to reverse this trend.

Further, in RED10 it was noted that the Department of Social Work had more explicit plans for the future than most other departments. This might not be the case currently, as the department is undergoing a shift in generations and the existing structures are vague. There are reasons now to combine the existing productive and positive academic climate with more explicit plans and more visible, accessible and clear support for researchers. Such strategies could enhance an already very well-functioning department to higher levels.

F2. Other matters

There could be some questions raised regarding the department's topics for research, about which there are brief comments in the self-evaluation. Not all topics were represented in the site visit, which was noted among the participants. It was noted that there is a change with the shift in generations, along with questions about the strengths in different areas in the future, with respect to the topics of organisations and child and family. Child and Family is the only area with a recruited Professor for the specific theme (in RED10 it was termed "family research" and highlighted as a strong area). Currently it is only briefly mentioned under the topic "Parenting children and youth in modern family cultures", while "Care, autonomy and participation" is just as clearly mentioned although it was more of an intention than a reality in RED10.

It is evident that the focus of research in the department is undergoing a change. This could be valued in different ways, and might be a theme for reflection in developing a strategy for department research and in relation to the question of recruiting full Professors through competition. The aim would be to minimise the risk of unintentionally losing significant research themes.

CONCLUDING RECOMMENDATIONS

The Department of Social Work upholds a very good standard in research with respect to quality, academic culture, collaboration, internationalisation, publications and generally all research areas. The department is in a phase of shifting generations and therefore in need of taking measures to ensure a continued high standard with further enhancement. On the basis of the information from this evaluation our most central recommendations are:

- Outline an explicit strategy for the department's research.
- Enhance the support to researchers concerning information, applications, dissemination of results etc. This support could be met through a Research Coordinator, consistent with the department's stated suggestion in the self-evaluation.
- Strive to find ways to enable smaller projects to develop into larger and longer-term projects and thereby systematically build on certain themes.
- Consider opening positions for full Professors in competition.
- Continue and enhance the support for young researchers.

DEPARTMENT OF SOCIOLOGY AND WORK SCIENCE

558	Introductory Remarks
559	Section A – Background and Research Standing
559	A1. Background
561	A2. Research standing
563	Section B – Leadership
563	B1. Leadership
564	B2. Recruitment
565	B3. Career structure
566	B4. Funding
567	B5. Feedback and evaluation
568	Section C – Complete Academic Environment
568	C1. Collaboration
569	C2. Relevance and impact on society
570	C3. Research-teaching linkages
571	Section D – Academic Culture
571	D1. Academic culture
572	D2. Publication
574	D3. Facilities and research infrastructure
574	D4. Transverse perspectives
575	Section E – Support
575	E1. Internal research support
575	E2. Faculty and University-wide support
576	Section F – Other Matters
576	F1. RED10 evaluation
576	F2. Other matters
577	Concluding Recommendations

INTRODUCTORY REMARKS

This expert panel consists of Professor Patrik Aspers, Uppsala University and the University of St. Gallen (chair of the panel), Professor Gurminder K. Bhambra, University of Sussex, and Professor Emeritus Margareta Bertilsson, University of Copenhagen.

Work Procedure and method

The expert panel started by outlining a work process drawing on our own experience of serving as research/teacher leaders in sociology departments from different countries, including Sweden, the United Kingdom and Denmark. As a group, we consider ourselves in possession of quite wide theoretical and methodological knowledge. In addition, we have all been the objects of department evaluations, and can therefore easily shift roles with our colleagues at the University of Gothenburg (UGOT). We consider ourselves their ‘critical friends’.

A first step was to individually read and analyse the different documents we received, and also to seek information elsewhere in order to address the questions in this template. Our aims were to provide reflective answers and relevant recommendations to our UGOT colleagues. As a natural point of departure, the last report RED10 was of great benefit – as we were able to discern developments and improvements that have been undertaken and are under way since then.

As a second step, questions in the template were addressed by each one of us separately in short statements; what is functioning well and what could be improved based on the given data. When in agreement, comments were left in the document as stated. In cases where we saw different things in the material, we turned issues to questions to be addressed at the site visit. Based on questions, we identified groups of people in the department we would like to meet in order to address questions and issues in more detail – or simply to discuss topics of interest that seemed unclear or else were not covered sufficiently in the self-evaluation.

The site visit allowed us to let those we interviewed talk freely and raise new issues, not included in our preliminary notes. We had prepared some concrete questions about facts available to us, but for the most part, we used classical focus-group interviewing to address themes and issues that were of concern. In this sense, we conducted a thematically focused visit with fieldwork that had a large inductive component.

Our final analysis, partly because of time constraint, but also because of access to different sources of empirical material and listening to diverse voices while *in situ*, emerged parallel to us addressing questions and collectively summing up our impressions.

In Gothenburg, we gradually ironed out previous question marks, and did most of the detailed analysis for each of the questions raised in the template. We drafted the final report, and outlined the more general conclusions and recommendations,

of which we are in full agreement amongst ourselves using our own background experiences and judgements. All along, and especially while on site, we have had the full cooperation of department members, especially the Head of Department, whom we warmly thank. We hope that our suggestions will be of value to the continued process of strengthening this department at UGOT.

Relation to RED10

In the previous evaluation from 2010 (RED10) the department was praised for doing some “very good” research, but for the most part “good” research, and that the research conducted was also relevant. Clearly, some units were doing well. The overarching message, however, was that the departments that were evaluated then lacked a general vision and strategy, and that the sociology department was then characterised by a “*laissez-faire* approach” (276). More concretely, the previous panel thought that the department was not internationalised enough (for example, doctoral students did not go abroad) and that the productivity in terms of publication was too low. The department was said to be lacking coherent academic leadership; the units or research groups doing well, did so mainly because of individual initiatives, or else of small groups.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Department of Sociology and Work Science is, by Swedish social science standards, a very large department, in fact the largest one in Sweden for which sociology is the main discipline. It is the result of a process at the University of Gothenburg to create fewer and larger units. The merger between Sociology and STS had already occurred in 2007, and as noted in RED10, appears to have developed rather well, albeit concerns were raised, whereas the merger with Work Science occurred after RED10, in 2012.

Hosting three fields of research, in this case Sociology, STS, and Work Science, is not uncommon for university departments in Sweden. In the self-evaluation, the triad merger is said to have been successful, praising the process and commenting positively on the synergies that have emerged as an outcome.

The University of Gothenburg is the Swedish university that has been the most radical in its strategy to create a hierarchical decision-making structure, while reducing collegial decision-making powers at the faculty and at the department level to a minimum. A new Head and Deputy Head were appointed in 2018.

The data on which the self-evaluation was written and, hence also on which this panel evaluation is based, stems mainly from 2017. The department gets roughly 50% of its income from the faculty for assigned teaching and the other 50% for

research. Of the research funding, about half of it comes from external grants. In a Swedish context, this clearly shows that the department is successful in attracting external funding. A number of individual projects are supported by the leading research councils in Sweden. With a large number of (noted) research groups, the department is thus, at least on the surface, research intensive.

In the self-evaluation, the department states as its strategy to “*foster creativity and flexibility*” (p. 3), for example by cross fertilisation of research between groups, across disciplinary areas of expertise and in light of issues of societal importance and significance.

The department hosts and co-hosts a number of research centres, which are partly funded by the department to initiate and coordinate research. Some of the funding comes from other departments and some funding from the faculty and the university, as well as some private and public sector funds. Colleagues are also involved in other centres across the university. The department is organised internally into 12 research groups (RG).

Projects and team members in RGs can cross over and cooperate. Some RGs have existed for a while in the department, while some – such as Digitalisation – are much more recent, and can most likely operate across boundaries. RGs can be loose networks where members who broadly share some common interests come together; RG's can also be strictly organised around key research projects that define and outline internal research work.

Weaknesses

- Seen from the outside, and also raised in communication with relevant faculty groups on site, an issue of concern to us is the size of the department. It is too large to become a well-functioning academic unit. There is not a clear idea how the department positions itself in the academic landscape at large, neither to outsiders, nor to insiders. The large numbers of existing RGs and centres give a fuzzy impression hiding some high-quality research conducted by some of the RGs/centres.
- We are aware of the fact that the size of the department is set by the university, but in order to improve research quality and research leadership, the department nevertheless has to address some pressing issues of research concentration.

Recommendations

- We have two main suggestions, which we think are related. The first is that we recommend the department to continue, but to intensify, its strategic discussions to formulate its position in the national and international landscape by identifying and emphasising its strengths. This does not only mean formulating goals for the department but also the strategy and the means to get there.
- To accomplish this, we think the body of professors is central. This body is currently not as central as it could be due to the linear model of decision-making at UGOT. This is recognised at the university level, but more could be done at the

departmental level to develop the responsibility and influence, both in research and education, of the most established researchers at the department, i.e., the professors. Taking up this recommendation would also free up the department's capabilities to address some of the other weaknesses identified.

- We suggest that the department organise, and to some extent formalise, some of the research areas/RGs. The number of areas should be fewer, but those that are taken up should get more support. These groups should get long-term support, for example by being funded by the department, and with the possibility of recruiting lecturers and PhD students to RGs / areas to strengthen them. The RGs should have senior leaders, preferably professors, who would take responsibility for the strategic thinking of the group and mentoring of the junior colleagues within the group.
- The bottom-up culture should be maintained to enable other research activities, such as networks, brown bag lunches, and the possibility of new research concerns emerging from below.

A2. Research standing

Strengths

- The department has a very good atmosphere without any obvious conflicts. It is an active department that has succeeded in managing the forced mergers, concerning which we have some comments and recommendations below.
- Many important steps have been taken since RED10, above all regarding publications, both peer-reviewed journals and book publishers, especially written in English. The significant increase in peer-reviewed articles since 2007 is noted. Quite a few of the articles are published in leading journals as ranked by the Norwegian list often used in the Scandinavian social science context.
- In the international ranking of disciplines at universities (such as the QS World University Rankings) Stockholm University is the most highly esteemed in Sweden while Gothenburg is present in the second group that also includes Lund and Uppsala.
- We take note of an impressive record of external grants from a variety of funding bodies, some of which are the leading ones in Sweden.
- Sociology and Work Science at UGOT is pluralistic, clearly noted by the members themselves. Most, if not everyone, seemed happy and at ease in the department.
- Furthermore, the department is actively engaged with surrounding society, providing services to the local community (upon which we will also comment below).
- The faculty and the management are dedicated, and there is an openness to the RED19 process and a willingness to engage with critical reflection and strategic thinking. The panel felt welcomed by the department and the interaction with the department has been characterised by openness.
- Among the many listed research groups, there are clear examples of well-organised and functioning units, by which we mean, strong leadership by a research-active senior colleague, that has regular activities with a critical mass of

colleagues from different levels, external funding, international collaborations, with ideas for strong future development.

Weaknesses

We will comment on issues, some of which seem not to be in the control of the department.

- There are many praiseworthy goals set by the department, but concrete plans for how to reach them are largely missing.
- To an outsider the discussion of three “disciplines” at the department: sociology, work science and STS, makes little sense. Rather, we would like to see the department harbouring one discipline (sociology) with a set of some strong specialities such as STS and working life studies.
- To us, it appears questionable to offer a PhD degree in a field like “work science,” which only exists in a limited number of Swedish institutions. We are aware that “history” has had great impact in determining the current landscape, but history as such should not determine the future: department (collegiate) leadership is the unit of agency.
- Current research at the department (represented in the self-evaluation) covers a great many different areas such as, for instance, feminism, migration, work, technology, emotions, social movements, digitalisation, STS, among others.
- Some research groups, such as work-life and social movements, are domain-specific while others such as emotions, feminism and digitalisation cut across various domains and rather represent research-perspectives.
- The self-evaluation report indeed contains plans for the future. The basic idea is to support funding for initiatives to have large programmes. There is a slight touch of “managerialism” in the language here, indicating an ambition to generate money and new projects. Somewhat less pronounced is the way this is going to be executed or the intellectual rationale for the projects to be supported.
- We also note that, since RED10, a global outlook is increasingly present at the research level of the department. The project group on ‘global poverty analyses’, for instance, clearly has a marked international standing developing the profile of the department away from a sole focus on Swedish societal problems. The same applies to the Social Movements RG, especially since ‘resistance’ was added. We detect the same tendencies in other RGs to travel outside local conditions and make these more universal.
- It is noted both in the self-evaluation and by ourselves while on site, that the quality of intellectual output in general has increased, not only in terms of productivity but also in terms of research/teaching engagement with the international community – this is clearly a plus.
- While we have already noted that some RGs with strong leadership and funding resources are conducting excellent, if not even outstanding research within their respective fields, other RGs appear more modest.
- The five-year plan to initiate new research projects that cut across existing RGs appears promising and ongoing initiatives should of course be stimulated (to attract wide external funding that demands interdisciplinary efforts).

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The department has changed leadership (Head and Deputy Heads) in 2018 and is thus well positioned to receive and act upon suggestions and recommendations that emerge from the ongoing evaluation process.
- An important part of the leadership structure (apart from the Head and IR) appears to be the BFF (Board for Research and PhD education) as it gathers together all professors including the PhD Director. It seems that some strategic decisions are initiated here as well as following-up on their implementation and execution. This also seems to be the forum for discussion about how the various RGs are functioning. On paper, it appears that the present leadership structure allows for a transparent organisational framework, inviting initiatives both from below and from above.

Weaknesses

- We have already taken notice of the apparent withdrawal of senior personnel, especially professors, from taking active charge and responsibility for future developments in the department. Clearly, such tendencies, if correctly discerned, are structurally imposed because of wider management policies at UGOT, and not a result of individual whims and wills. We nevertheless wish to point out the unintentional but unhappy consequences of such management policies for high-quality research and teaching.
- It is noted in the self-evaluation that weaknesses reside in prioritising between RGs. This we see as potentially causing several problems, including for example, tension between researchers, uncertainty and problems for groups regarding long-term planning given lack of standards or scales that can be used to distribute resources between the different research groups. It may also imply resources to some RGs while holding back resources to others. This is obviously a perennial problem in academic management.

Recommendations

See previous remarks...

- Concentration is needed; prioritising research goals and research arenas from above while still maintaining inputs from below.
- It seems from the self-evaluation that some central improvements are well under way. It is clear that the RGs are important for driving research and for mentoring junior researchers. Given their importance, more formal rules about the setting-up of new RGs, as well as their closure, are needed. A better structure for distribution of resources to the groups should be put in place. Perhaps a fixed sum, and a sum that varies with output or the number of active members, should be considered.

B1.2 Faculty/University level leadership

Strengths

- Openings between departments are occurring, providing opportunities for cross-departmental communication and benchmarking. The faculty offers the department support, for example, in the hiring process.

Weaknesses

- It remains somewhat unclear to what extent centres are set up to collaborate with departments and to what extent they are competing and fostering a culture that, for example, “forces” researchers to list the publications with some units rather than with others. The redistribution mechanism between the departments of the faculty seems to create drastic changes, and to create self-propelling spirals that the department cannot hinder.

Recommendations

- The communication from the faculty could be clearer. The role of the centres is a particular concern for the department.

B2. Recruitment

Strengths

- It appears that the department increasingly advertises positions in open competition, thus alleviating the often-stated criticism (not the least from colleagues at UGOT) that Swedish universities suffer from intellectual inbreeding; recruiting from within their own numbers rather than from outside.
- There have been a number of new recruits, across various levels, with doctoral degrees from outside UGOT, although there is still a domination of primarily national recruitment.

Weaknesses

- There is still a great number of faculty members who have not been appointed in open competition. It is already mentioned in the self-evaluation that the possibility for senior lecturers to apply for professorial status directly to the faculty leads to the collective problem of too heavy a professorial body, with increased costs for the department, partly due to higher salaries, and partly due to decreased teaching responsibilities. This is a structural problem of Swedish universities in general, but due to past and current policies at UGOT, the situation appears more acute here than at other universities.

Recommendations

- Simultaneously allowing for internal career development, while keeping slots open for external competitive candidates is indeed a challenge. The department seems well aware of this, and the future plans to announce positions internationally by way of (major) research projects appear promising and should be encouraged. Steps should perhaps be taken to investigate to what extent the

department could affect promotion decisions. It is also possible to differentiate, for example, the teaching reduction between promoted and recruited professors. There is a risk that faculty resources could be tied up with people who have been hired without competition, and who may not be engines of research.

- Our recommendation is to separate out teaching from research teaching. Concretely to have new recruitment to cater to research and teaching needs. We recommend that some positions be announced as “teaching only” for service teaching positions, and to free up resources for more research positions, also at the level of professors, that are attractive to outside scholars.
- We also suggest that, if at all possible, there be laid down restrictions on promotion; that promotions to full professors and lecturers only occur after agreement in relevant collegial bodies based on the present and future needs of the department.

B3. Career structure

Strengths

- It appears that the department – via the Head and Deputy Heads – has spent substantial energy on meeting individual staff members annually in order to review the performance and responsibilities of each colleague. As noted, such performance reviews must be very time-consuming, see below.
- The department argues that it is a strength that it can offer 30% research time for professors and 10% for lecturers. This, however, is likely not enough to allow them to pursue much independent research.
- Several of the professors and (senior) lecturers have joint appointments with other institutions (also outside Sweden). This is clearly an asset in bringing in fresh ideas and (perhaps) giving doctoral/master students opportunities to visit other academic sites.
- The gender structure appears overall quite balanced, although with a little male over-representation among the professors.

Weaknesses

- We pose the question of whether the various RGs and their Heads could be more involved in the review process, especially as they are likely to have more inside specialised knowledge into what goes on in various research fields.
- The department identifies the opportunity for senior lecturers to supervise PhD students. Since the number of PhD students is low, only 20 currently, there cannot be good chances for most lecturers to do such supervision. We are not in the possession of information as to the distribution of PhD students across RGs, or other faculty needs – or if there is a possible conflict here in the admission of doctoral students.
- In our sessions, we noted a lack of support for PhD students and junior colleagues in particular, partly due to a lack of procedures, and partly due to a lack of transparency of “how things are done”. There is much good support within research projects and within RGs, but these practices are not necessarily always generalised in the department as a whole.

- The panel is concerned with the heavy teaching load put on the department, especially regarding teacher training. This has several consequences, and each comes with risks. One risk is that lecturers are hired to meet teaching demands only, without concern for the research orientations of the department. A second risk is that these lecturers have limited opportunities for conducting research, unless they can acquire external funding. The third risk is that the department is becoming too large, due to the high volume of substitute teachers becoming permanent due to “*inlasning*” (Swedish labour law). We therefore put in question the department’s extensive engagement in teacher training.
- Though the panel sees some positive signs that the department is becoming more internationalised, for example, with more international publications and international guests and collaborations, we are still concerned that the reception of international postdocs and PhD students, especially regarding information in English. The department’s PhD students do not spend research semesters abroad. The ones we met were not fully informed as to such options.

Recommendations

- We suggest that the department only give degrees in sociology with some strong specialisations (work life conditions and STS for instance).
- More structures should be installed to support the supervision situation (when issues arise). Better induction of new PhD students and postdocs who come to the department, perhaps by providing them with mentors. It would be particularly helpful for postdocs to be allocated a mentor who could help integrate them into the culture of the department and provide support for their longer-term career plans. PhD students should ideally spend a semester abroad.
- Career planning, especially for doctoral students and postdocs, also entails looking for ‘market opportunities’ both inside and outside academia. Gothenburg is a vibrant city and harbours a lot of innovative (high tech) industries where meetings can occur between academia and industries/public life. Involving active researchers/senior personnel in career planning for junior colleagues entails that the former draws upon their networks in the national and international community.
- Our recommendation is to separate out teaching from research teaching. Concretely to have new recruitment to cater to research and teaching needs.
- We also suggest that both senior and junior colleagues be given chances to go abroad – having a sabbatical year or else to be stimulated to conduct both research and teaching outside the local community. More circulation and mobility should be encouraged.

B4. Funding

Strengths

- The researchers at the department are clearly able to attract external grants in competition. Changes at the department since RED10 have resulted in much more external funding, including from the leading Swedish research funders.

- Some RGs (Heads) seem to be active in stimulating and reviewing research applications by junior fellows, clearly a sign of active researchers.

Weaknesses

- As mentioned, it is a concern that so little research time is allocated to personnel: 10% to (senior) lecturers and 30% to professors. Using some of the faculty research money to co-fund projects, i.e. overheads, has reduced the money that is freely available to be used. Relatively limited faculty resources mean that research largely depends on external funding.
- To carefully consider how much of the faculty money is “free” and how much is used to pay faculty members to do research, is a task of the department.
- While on site, we were made aware of some recent reductions of faculty money due to competition among social science departments. Clearly, such reductions create uncertainties and constraints both on leadership and on individuals.

Recommendations

- Good intentions exist as to developing large-scale research projects and thus increase block external funding.
- There is no doubt that the strategy to have a high and steady flow of external funding should be preserved. This is crucial for having a strong research milieu at the department. A substantial part of the research budget already comes from external grants, and this is essentially a success story.
- There is a risk, however, that there is less focus on strategic research discussions in favour of researchers focussing on getting new grants.
- The financial conditions and strategic use of faculty funding ought to be discussed among senior researchers to enable strategic decision-making as well as to address the risks of diminished external research funding. Is the department strong enough to support new research initiatives? Can support be sustained on a long-term basis, say over four years to allow something to grow? Are the resources large and flexible enough to accommodate new needs and ideas?

B5. Feedback and evaluation

Strengths

- In addition to external quality assessment, in terms of journal and research councils, the department organises several arenas to exchange ideas and to support, for example, doctoral students. There is a strong self-awareness as to the strengths, weaknesses and suggested improvements of the department.

Weaknesses

- A general issue that reappears throughout the self-evaluation is the difficulties that the department seems to have when it comes to prioritising between its own faculty members. This is reflected in the promotion to professor, research groups, and also this evaluation.

Recommendations

- See previous notes and recommendations as to more intense engagements of professors and senior lecturers in taking charge and responsibilities in the evolution of the department as a whole in situating itself more strongly in the national and international research community.
- We also recommend that the department use, in a more stringent manner, an external peer-review system for internal evaluations. It can be academic output and impact, external funding, outreach activities or students' evaluations. We do not recommend implementation of an internal peer-review system, with its risk of conflicts and distrust among the faculty of the department.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Through various research centres/projects the departmental staff is widely connected to other research disciplines both inside and outside the Faculty of Social Sciences. For example, Health and Medicine, Age Cap, Robot Digitalisation (stimulating contacts with Chalmers) are instances of units that cooperate across disciplinary boundaries. This is laudable.
- As several staff members have been recruited from other Swedish universities, cross contacts with other universities are frequent.
- As several staff members have joint positions with other universities both inside and outside Sweden, the department ought to be in the possession of wide research networks in and outside academia. Questions do pertain as to how these possible networks are exploited on a daily basis.

Weaknesses

- It is difficult to ascertain to what extent cross-disciplinary and cross-university contacts are dependent on individual researchers, and thus vulnerable to their mobility. It is not clear what the department does to promote such activities.

Recommendations

- A stronger engagement both on behalf of the university and faculty could perhaps develop more 'institutional' contacts in and outside academia. At the same time, we realise that most academic contacts seem to rest on personal relations. The personal networks of resourceful leaders/researchers could perhaps be better drawn upon.
- Seminars with representatives from local/national communities of current and future partners outside academia could be conducted on a yearly basis to receive inputs from the outside – or else have feedback on efforts of the department to situate itself in the environment.

C1.2 Collaboration with external stakeholders

Strengths

- The department has an impressive list of external stakeholders from a wide set of municipal, national and international sites. Included among them are police studies, prison studies, regulation studies of public employees – to mention but a few ongoing interfaces between academic research and public administration. There is also a clear awareness of the role that industrial PhD projects can play in strengthening such engagements.

Weaknesses

- Sometimes this type of contact can be like low-hanging fruits, which nonetheless requires some effort to maintain. We have already noted that the task of teacher training consumes considerable teaching resources.

Recommendations

- It was previously mentioned (career development) that in planning future careers, especially for doctoral students and postdocs, ‘external’ outlooks should be stimulated, and that personal and institutional networks of senior personnel could be better drawn upon in helping junior fellows to find positions and jobs, also outside Gothenburg.
- We received a list of PhD dissertation titles for the last 20 years or so, and it features an exciting intellectual landscape, increasingly in English. It would also have been useful to receive a list of where the doctoral candidates are heading after their degree. Such regular feedback can also help the department situate itself in the surrounding landscape.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- The management structure is well represented in the self-evaluation report. While on site, we also met a very dedicated Head and Management Team.

Weaknesses

- In previous remarks, we have already pointed out possible unintentional consequences at the departmental level of university management policies – the linear structures open up unfortunate divisions between Management and Research/ teaching. Such divisions can also foster individualist withdrawals of resourceful personnel.

Recommendations

- See previous recommendations as to increasing the engagement of senior researchers / professors in the strategic planning of the department.

C2.2 Research relevance and impact on society

Strengths

- The extensive list of external stakeholders on various levels promises a dynamic interface structure.
- The department has a very impressive list of UN Sustainable Development Goals that have been or are currently addressed in and through various research projects.

Weaknesses

- A challenge always exists that sociological research too moulded towards socially-defined problems risks becoming short-sighted and perhaps too concrete. The question asked by Howard Becker – ‘Whose side are we on?’ – is always pertinent in sociological research.

Recommendations

- Feedback seminars and meetings where challenges are addressed, regarding both academic research and societal problem-solving.

C3. Research-teaching linkages

C3.1 Undergraduate and master’s education

Strengths

- Three strong MSc programmes are listed, all of which appear solid, oriented both to research and practice. Master’s programmes serve the purpose of recruiting international students – and making the department “known” to the outside world. It can also serve as a resource to receive “fee-paying students” from outside Sweden and the EU.

Weaknesses

- Weaknesses as to the international recruitment of MA students are mentioned in the self-evaluation. There does not seem to be a sufficient matching between MA students and the research foci of the department.

Recommendations

- The department needs to proactively address any problems associated with casualisation that may emerge from recruiting to fulfil teaching duties, and ensure that there is an equitable standard for all appointees in terms of making time available also for research. In order to meet such challenges, we have suggested that some teaching duties (serving outside community needs) be announced as “only teaching” in order to maintain research opportunities for ordinary lecturers.

C3.2 Doctoral education

Strengths

- The large department with many research groups should offer PhD students plenty of intellectual opportunities and stimuli. The students can benefit from a sociological core, while orienting themselves to a number of specialties. On paper and recorded in the self-evaluation, a strong structure for monitoring the progress of the PhD students is noted. PhD students are able to apply to the internationalisation fund, which supports visits to overseas institutions.

Weaknesses

- During the on-site meeting with PhD students, we were given quite opposite impressions to those formally stated. As noted previously, there seemed to be a lack of support for incoming students, especially those who are foreign, partly due to a lack of procedures, and partly due to a lack of information as to “how things are done”.
- The international visits of PhD students, which was a theme already in RED10, are still not fully developed. Given the large international network of researchers at the department, it is somewhat surprising that the PhD students cannot or do not benefit more widely here.
- There are different concerns among doctoral students depending on if they are “project-employed” or else employed on their own terms. For the former, risks are that their research focus becomes too narrow and too dependent on their supervisor. Tricky issues can come up with regard to co-writing articles with supervisors.
- For the latter, the risks are the opposite ones – that they are left largely to themselves, not having the information needed to navigate various issues in the department.

Recommendations

- See previous comments as to the need for a better support structure for PhD students.
- We also suggest that PhD students in the future only be admitted when matching strong research areas of the department.
- Be observant as to a “critical mass” that supports the students.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The fact that the department is very large means that there are many experts on a great number of topics. There are some quite different research areas and research traditions at the department, which ideally could lead to cross-fertilisation.

- We have noted the friendly ambiance that appears to exist in the department – people are on the whole very happy and content.

Weaknesses

- The discussion of different “disciplines” and the interests of actors or group of actors to maintain certain borders run the risk of creating sub-units. This is especially pertinent, given the fact that the department is (too) large to function as a collegial body. This means that there is no way in which people could really know the work of all other colleagues. Obviously, it can function as an administrative body. We have also noted the divisions between Management/Administration and Research Leaders/Professors, and an apparent risk of withdrawal of senior personnel in assuming collegial responsibilities – clearly affecting “academic culture” on various levels.

Recommendations

- The ongoing integration process, due to past mergers, seems to have not been completed. We recommend that the department work actively to integrate its faculty into one larger whole, and not to further academic-organisational identity borders. The openness of research groups here could serve as successful means of integration.
- As documented in the increase of peer-reviewed articles and books, the academic culture has clearly changed in the process. But while on site, we noted some concerns from primarily foreign junior colleagues who felt excluded from many seminars, as they were conducted in Swedish. A balance needs to be found to meet diverse needs.

D2. Publication

D2.1 Publication strategy

Strengths

- The department has had a clear ambition since RED10 to increase the number of peer-reviewed articles. The increase is both in absolute numbers and as the share of the total output. Another change that has led to increased output is a shift from primarily PhD monograph dissertations written in Swedish to compilation dissertations with co-authored texts, allowing doctoral students to publish jointly with staff. A good number of articles are co-authored with colleagues from other universities. A decisive intervention by key personnel to change the ‘academic culture’ appears to have been successful.
- Several books are recently published by renowned international publishers. Some of the articles published in very good journals. Despite this, the department also publishes textbooks. This is a good thing as long as it does not reflect a division of labour, so that some faculty members only publish international peer-reviewed journal articles, and others only publish textbooks in Swedish.
- The professors are active and productive when it comes to publication – perhaps reflecting their more privileged working conditions.

Weaknesses

- A reflective stance on the consequences of replacing the monograph (which requires specific research skills, including the capacity to treat issues at depth) with articles is lacking. Here are some examples of questions that could guide such a reflection: What consequences does this change of emphasis on compilation dissertations have for the possibility of developing new ideas? Is it a good idea for established colleagues to publish with PhD students? Has there been consideration of the ethical issues surrounding such co-publication?
- How are PhD students and their intellectual work to be protected in such a situation?
- Though outlets and citations correlate, there is comparatively little discussion on citations and the “impact” of publications, but more on level 1 or 2 (which is a crude measurement of “quality”).
- Though some of the books and articles are published in very good outlets, few texts appear in the very top-ranked journals or publishers. If this is the aim of the department, this dimension is lacking in the self-evaluation.
- Some of the suggestions seem to run in conflict with one another. There is a tendency towards “more” level two, but at the same time to publish in many outlets.

Recommendations

- The department should maintain a multi-dimensional publication strategy that also gives credit to the Swedish language and society – increasingly difficult in today’s dominant ‘academic culture’.
- To balance and reflect on the conflicting interests and values, we recommend the department to continue discussing publication strategies and their consequences for PhD education, collegiality and quality in the long run.
- The most important thing is, perhaps, to prioritise and have a strategy for reaching goals, and not just a set of goals.

D2.2 Analysis of bibliometric data

Strengths

- There is no doubt that over the last decade or so, the department has clearly improved in a number of dimensions. The department is productive, especially given its relatively limited faculty-funded base.
- The comparison (benchmarking) with the University of Oslo (UiO) regarding level 1 and level 2 publications is clearly useful, while taking into account that UiO sociology is a large unit with a longer publication tradition.

Weaknesses

- It is quite difficult to say something more particular about how the different research groups fare in publication patterns. We find no departmental ambitions of trying to communicate this, not even regarding good practice (i.e., a good example of a research group). This suggests that more should be done to develop the reflection about the role, functioning and results of the different RGs. Is there a way to “help” RGs that fare less well?

Recommendations

- The department should make use of the bibliometric data in its discussion of how the various branches (what the department calls ‘disciplines’) or RGs fare publication wise. We do not recommend that this should, for example, steer resources, but it could be a good instrument for learning more and for enabling discussions on output.

D3. Facilities and research infrastructure

Strengths

- Efforts seem to be under-way to think in terms of creating more robust databases.

Weaknesses

- Generating data sets that only cover individual projects seems, in the long-run, to be a waste of resources.

Recommendations

- The department has people who are experienced and knowledgeable about databases. However, any database, to be successful, must be given long-term support and thus be based on extensive support at the department for many years to come. If the department cannot unite in one database, it may probably be better to not engage in developing databases that tend over time to be costly to maintain. There is also a risk that databases tend to create reproductive research. There is also, of course, the opportunity to learn from the Department of Political Science at UGOT, where there is a long-standing interest in creating large comparative databases of party preferences and quality of governance/ democracy indicators.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The department shows a clear view of what to do when it comes to equal opportunities in terms of gender equality. How does it address other vectors, for example, of sexuality, race, and disability?

Weaknesses

- Problems with international recruitment of staff are mentioned in the self-evaluation.

Recommendations

- There is no need for recommendations based on what we know, but to continue with what is currently done.

D4.2 Internationalisation

Strengths

- It seems that efforts are under-way to improve international recruitment to the department. This is happening across a variety of aspects, including student recruitment to MAs and the doctoral programme. Staff recruitments will have their own specific issues.
- For the last couple of years, the department has run a guest professor programme that has helped to facilitate internationalisation ambitions.

Weaknesses

- The faculty, compared to many other Swedish departments at which sociology is the dominating discipline, appears quite homogenous. The explanation of this fact is unclear.

Recommendations

- Try to create a policy for which languages (Swedish/ English) should be used at the department with regard to different activities, such as for example: teaching, research seminars, and review seminars.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- A support system is in place and appears to be working well with regard to doctoral education, reviewing research funding applications, and responding to faculty performance reviews.

Weaknesses

- Capacity to write wider project applications that can summon substantial funding.

Recommendations

- Build up local expertise in research grant-writing and provide further administrative support to do this.

E2. Faculty and University-wide support

Strengths

- The department does not mention the doctoral courses funded by the faculty. Co-funding of research centres is also a clear noticeable support, though it is not obvious that the money is better used at the faculty level than at the departmental level.

- Apparently, the faculty is active in providing various support and initiatives. A PhD course in qualitative methods is to be conducted by the department.

Weaknesses

- The fact that the department does not have much substantive to say about this level cannot be interpreted as positive. It plays “*no important role*”. This stands in strong contrast to the self-evaluation of the faculty.

Recommendations

- The department harbors a few research projects/centers that cross faculty specialisations: Health and Medicine, Technology and Science (STS), Law (Emotions in the Court room).
- Clearly, some ‘ground-breaking’ research could evolve from such engagements.
- Can PhDs and postdocs be funded from within a cross-faculty funding programme, or is it always allocated to individual departments?

SECTION F – OTHER MATTERS

F1. RED10 evaluation

As we noted above, it is clear that the department has rectified several of the issues mentioned in RED10. Less clear, however, is how the department has worked actively and strategically to address the concerns raised.

F2. Other matters

There are some overarching themes that are not addressed, but we see as underlying the department. One of them is the idea nurtured that the department is the home of three disciplines: sociology, work science and STS. Work is a theme, and STS is more of an approach/investigation into various research processes, but neither is a discipline in the traditional sense. To further research, we recommend that the research groups become arenas of integration. It also appears that much collaboration in research groups runs smoothly, despite members coming from what are called different “disciplines”. To make an integrated department in the future, a serious discussion that puts these sharp boundaries into question should be launched.

We recommend that the website be improved. It is difficult to use, and an English version should appear next to the Swedish one.

CONCLUDING RECOMMENDATIONS

We have two main suggestions, which we think are related.

The first is that we recommend the department to continue, but to intensify, its strategic discussions to formulate its position in the national and international landscape by identifying and emphasising its strengths. This does not only mean formulating goals for the department but also the strategy and the means to get there.

To accomplish this, we think the body of professors is central. This body is currently side-stepped due to the linear model of decision-making at the University of Gothenburg. This is recognised at the university level as a whole, but more could be done at the departmental level to develop the responsibility and influence, on both research and education, of the most established researchers at the department, i.e., the professors.

Taking up this recommendation would also free up the department's capabilities to address some of the other weaknesses identified.

The second recommendation is for the department to organise and, to some extent, formalise some of the research areas/research groups. The number of areas should be fewer, but those that are taken up should get more support. These groups should get long-term support, for example by being funded by the department, and with the possibility of recruiting lecturers and PhD students to RGs / areas to strengthen them.

The RGs should have senior leaders, preferably professors, who take responsibility for the strategic thinking of the group and mentoring of junior colleagues. Still, the bottom-up culture should be maintained to enable other research activities, such as networks, brown bag lunches, and the possibility of new research groups.

SCHOOL OF GLOBAL STUDIES

580	Introductory Remarks
581	Section A – Background and Research Standing
581	A1. Background
582	A2. Research standing
585	Section B – Leadership
585	B1. Leadership
588	B2. Recruitment
589	B3. Career structure
590	B4. Funding
591	B5. Feedback and evaluation
592	Section C – Complete Academic Environment
592	C1. Collaboration
593	C2. Relevance and impact on society
595	C3. Research-teaching linkages
596	Section D – Academic Culture
596	D1. Academic culture
597	D2. Publication
598	D3. Facilities and research infrastructure
599	D4. Transverse perspectives
600	Section E – Support
600	E1. Internal research support
600	E2. Faculty and University-wide support
601	Section F – Other Matters
601	F1. RED10 evaluation
603	F2. Other matters
603	Concluding Recommendations

INTRODUCTORY REMARKS

In early January, Anne Jerneck welcomed her two co-panellists Richard Handler, University of Virginia, and Georg Soerensen, Århus University, to the panel and the RED19 task.

Anne informed the panellists about her previous academic services for the School of Global Studies (SGS). She has been a final discussant for a PhD thesis, she has served on a PhD committee, and she has evaluated and selected applicants for one senior lecturing position and one professorship in ESS (the Environment subject area).

The panel decided that each member should read and evaluate all the material and respond to the panel report template before 10 February 2019. This would be the input for a first preliminary draft. After that, Anne meshed the three contributions and circulated the composite version for further comments around 15 February. In parallel, the panel formulated questions for the April visit.

In late February, well ahead of the visit, we sent a short list of specific questions to the SGS and received extensive responses to those within a week. Shortly after, we followed up with three larger theme-oriented questions to be raised and discussed at our site-visit in April. In preparation of the visit, the leadership group at the SGS shared these themes with the staff.

During the intense two-day site visit at SGS, we met with representatives from all categories of staff, mainly researchers and the leadership trio. All sessions were organised as group meetings lasting 45–90 minutes depending on priorities.

After the first day (2 April) we discussed the input needed to adjust, revise and complete the template and then formulated concrete recommendations for each ‘interest group’. After the last meeting of the second day (3 April), we compared strengths and weaknesses and started synthesising our most pertinent recommendations based on the self-evaluation and the visit. To round off the visit, we presented and illustrated our synthesis at a constructive feedback session with the leadership group. This session was helpful also for the panel.

After the Gothenburg visit, Anne fed our input into a revised version of the template and complemented it with a concluding section based on our preliminary thoughts and final synthesis. She circulated the draft of the conclusions for constructive contributions, revision and completion in the panel, and submitted the final version of the evaluation on 14 April.

As a final note on communication: we were in contact with Isabell Schierenbeck at SGS from early February, when she started planning the programme for our visit. We were in full agreement about the final programme, and we met with all the groups as planned.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

1. Brief comments on the organisation of the department and structure of leadership:

The School of Global Studies (SGS) – formed in 2005 – is characterised by pluralism in theory, methodology and disciplinary orientation. Research and education are multi-, inter-, or even transdisciplinary. They cover varied global to local sustainability challenges as well as social processes and relations including development and globalisation.

SGS offers a clear, focused and interesting description of its main research directions organised around three **core interdisciplinary** research / teaching areas: ESS (Environment), PD (Peace and development Research) and SANT (Anthropology) each of which has a PhD programme and a supervisor colloquium. Besides, there is a smaller **HR unit** and **two multidisciplinary research centres (RCs)** (Global Migration, Globalisation and Development), and an additional **six research groups (RGs)**.

In everyday practice, research at SGS takes place in individual research projects, RCs and RGs, including their networks. The RCs and the RGs are **theme-oriented** and are supposed to **foster collaboration** not only between senior and junior researchers within SGS but also within the University of Gothenburg (UGOT) – as for example with two cross-faculty centres (Centre for Critical Heritage Studies, Centre for Global Migration) – with other universities, and with various actors and stakeholders in society.

2. Considerations/Recommendation for how the department is organised, and for the structure of the leadership:

Given the broad selection of interdisciplinary themes, it seems reasonable to organise research (and education) into centres and groups that interact and collaborate both within SGS and externally. The high degree of interaction and collaboration may be a challenge in itself but should also be beneficial for research outcome. It is also beneficial to promote a structure that involves both senior and junior researchers.

3. Thoughts on organisation and structure with respect to creating high-quality research:

See recommendations under B1 and E2.

A2. Research standing

The research profile at SGS is **relevant, interesting and convincing**.

The School of Global Studies (SGS) has **developed over time to incorporate new interdisciplinary research areas** relating to global and local challenges in the fields of **development, peace and conflict, globalisation, and sustainability**.

Research at SGS clearly follows the **international trend** of developing **from multi-to interdisciplinary** and even **transdisciplinary** research. It has also followed the trend of moving **further into sustainability issues**, and also explicitly towards an emphasis on the **social aspects** of sustainability research, with the establishment of the new field of ESS.

SGS is also at the forefront as regards research on **migration and integration** and has further plans to spearhead within this field, both nationally and internationally [and even locally/regionally].

The SDG agenda highlights the value of the competence and focus of SGS.

What is the quality of the department's research from an international perspective within its field (above, average, below)?

Given its size and broad profile, SGS still seems to be **one of its kind in Sweden** in terms of both research and education in the wide range of subjects that it covers.

Research at SGS is **internationally recognised**, which is reflected in worldwide collaboration, strong networks, higher number of publications, and increasing external funding. This is also evident in a variety of consultancy and **outreach** activities.

Researchers at SGS publish in a broad range of **international peer-reviewed journals** in their varied fields and not the least in what can be seen as interdisciplinary – or even transdisciplinary – journals such as: *Global Networks, International Feminist Journal of Politics, Journal of Environmental Policy & Planning, Journal of Political Ecology, Sustainability Science*.

Researchers have also published with **international publishers** such as Berkeley University Press, Routledge, and Routledge Earthscan, and some have gained international awards for their groundbreaking work (see Eriksson Baaz and Stern 2013).

In recent years, and in line with a deliberate strategy, SGS researchers have been **increasingly successful** in publishing in **international peer-reviewed journals**.

To the extent that we can distinguish between **critical research** and **problem-solv-**

ing research, we see that SGS is pursuing both. While some scholars are approaching the global challenges pertaining to development, globalisation and sustainability from either one of the perspectives others combine the two into critical problem-solving research.

Quality: To sum up, we find that SGS is an **accomplished and well respected** (nationally and internationally) research environment. It has several scholars with a high international profile and overall it is benefitting from well-developed international networks. Overall, research pursued at SGS can be evaluated as being clearly above average.

Weaknesses

However, there are also challenges.

Unevenness: There is an element of unevenness in that some scholars are much more productive or much more connected to networks than others.

Pluralism: SGS is **highly diversified** in terms of research across the three core areas and in terms of the efforts within each area. This is not necessarily a weakness; some considerable diversification and pluralism is desirable and must be expected when the common research denominator is “understanding the world and its complex processes” (self-evaluation page 2). The risk is that SGS-wide discussions on methods, research profiles and strategies are toned down.

Creating common ground: The central commitment to interdisciplinarity may risk leading to a de-emphasis on the common debate on research profiles, funding strategies, and methodological and theoretical priorities. Such deliberations would appear desirable or even necessary to establish common methodological standards for excellent research across SGS.

Recommendations

Creating a coherent research agenda: The panel suggests that existing ambitions to establish *a more coherent research agenda* could be strengthened. It could be done by further developing the ‘research application workshops’ into a common SGS Screening Committee for (larger) applications for external funding thus providing a fine environment for the discussion of common standards and high quality.

Responding to methodological changes: The aspect of *hyper-diversity* makes it difficult to react to new developments in the social sciences. A great deal of peace research, for example, is nowadays employing a variety of quantitative methods or mixed-method approaches with quantitative elements. What is the appropriate reaction of the SGS to such **methodological changes**? Responding to this would help clarify what SGS stands for in addition to inter- and transdisciplinarity.

Steering funding ambitions towards ERC: The overall research plan should preferably specify SGS’ funding ambitions. An academic unit of SGS’ standing should

be actively pursuing one or several of the European Research Council's Starting or Advanced Grants.

Publishing – according to quantity and quality: We find the standing of the school's research to be clearly above average, but with room for improvement both in terms of quantity (perhaps too few books in 2016–2017) and quality (even more articles in peer-reviewed international journals).

Prioritising tasks: Given the high demand on university academics to juggle the triple task of research, teaching and outreach activities, we recommend that while this trinity could/should be seen as an overall principle there is also scope for some division of labour between researchers. Not everyone has to do all three at all times.

Current aspirations for new research initiatives – relevant and realistic?

SGS has several main aspirations:

The first is to reach and maintain both a strong national and international standing. One way SGS seeks to do that is to expand the number of publications in international peer-reviewed journals. This number has indeed increased since 2010 and with new project funding there are good prospects of increasing international publication in the coming years.

Q: Will you make a particular effort to seek out high-impact journals?

The second aspiration is to attract **more external funding**. Here SGS was especially lucky regarding the Swedish Research Council (VR) funding (SEK 17.5 million) for a big project on migration. With that, SGS seeks to establish CGM as the leading national research centre on Migration and Integration. There are also initiatives to join a large EU-funded project in this area. The ESS area is also seeking to attract more funding (from RJ) for interdisciplinary projects with other universities in Sweden.

Q: What is the strategy and which are the measures for seeking to become a leading national centre for M&I?

Medium-term aspirations and vision for the future (5–10 years) – relevant and convincing?

This is a partly unanswered question: Where does SGS aspire to be in 5–10 years?

Q: Could you suggest a somewhat bolder long-term vision and could you elaborate on and specify the medium-term aspirations?

The third aspiration is to increase **research time for all teachers**.

This is a very important ambition! *Q: What will the measures and initiatives be for that?*

The fourth aspiration is to promote the career paths of junior staff.

Q: How will you do this? Will it be through professional development, mentorships, raising seed money to initiate new research (pilot studies), organising an early-career conference, offering courses or more workshops for learning/furthering the skill of writing applications?

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

The department leadership structure is clear – and also clearly described. It follows the main principles of Swedish universities with a Departmental Council, a Head of Department, a Deputy Head, a Vice Head, a Head of Administration, and a Leadership Group. Below that level, the Deputy Head and the Vice Head work together with the three PhD coordinators (one for each major field) and the Directors of Studies for undergraduate/graduate studies. Besides, there are theme-oriented research subgroups. SGS also has an advisory board.

Given the large size of SGS – with three major fields plus subfields – it seems reasonable to have a Deputy Head, a Vice Head, and a Head of Administration. The division of labour and responsibilities between councils and committees seems reasonable. In sum, however, it adds up to a large total number of groups and committees.

Q: Is it necessary to have such a high degree of labour division between committees? On the one hand it may be less efficient to have (too) many theme-oriented groups in the management structure, but on the other hand it is a clear act of collegiality to share the administrative burden across staff groups, and to get many persons involved and engaged in departmental work and decision-making processes.

We may have some concerns about potential over-engineering of the leadership structure. Is it both efficient and equitable to run them all? Are they all effective – and necessary? Could anything be gained from combining some issues / themes / tasks into larger units to both avoid segmentation and time consumption?

Strengths

- SGS takes leadership and management issues **seriously**. All expected university leadership positions and committees are present in SGS's administrative and organisational structure and the Leadership Group (LG) appears to be a well-functioning body with a high degree of legitimacy. On paper, this structure

creates transparency of where each issue is to be handled and where decisions about it could/should be taken.

- Principles of inclusion, transparency, and collegiality are much emphasised as are the efforts to ensure legitimate decisions, avoid favouritism, and nurture research leadership. This is reflected in how many individuals are **involved** in various decision-making processes and thus **gets a say** and also the **opportunity** to practice some degree of management while also acquiring leadership skills.
- Given the high demands on leadership and the increasing call for leadership skills, we think that the existence of high numbers of organisational units may serve the auxiliary purpose of being a **testing ground** for academics to practise leadership, but there may also be drawbacks.

Weaknesses

- The self-evaluation overwhelmingly emphasises the form of leadership (inclusion, transparency, etc.) and not the substantial content of leadership. It does not say anything about how much space the LG has to act and how actively it uses that space or for which purposes. Emphasis appears to be on a bottom-up process of decision-making, which can be fine in most cases, but less so in situations that require larger changes or adjustments.

Recommendations

- It would be helpful to have further clarification on what the substantial challenges are for SGS research as seen from the LG, and what possibilities the leadership sees for reacting constructively and effectively to those challenges. This was partly clarified during the site visit.
- We recommend that SGS consider whether the many staff issues are best handled in smaller committees (as now) or more efficiently and consistently in fewer units? We also recommend that SGS consider whether the expansion of the number of groups and committees is a result of needs – or a reflection of requests from higher administrative levels? At the site visit, the importance of collegiality was further underlined and we see the point in having many committees where colleagues meet to discuss, and for anchoring decisions.

B1.2 Faculty/University level leadership

The Faculty of Social Sciences interacts with the departments via several channels: the Council for Department Heads (*Prefektrådet*), the Committee for Research and Research Education (*Nämnden för forskning och FU*) and the Committee for Education (*Utbildningsnämnden*). Once per year, SGS is invited to discuss **strategic issues** and **specific challenges** with the faculty leadership.

The Head of Department also meets with **all the Heads across the university** to discuss **overall strategic policy issues** with the university leadership, who in turn pay visits to departments. Last time they visited SGS, they expressed their appreciation for the **international interdisciplinary research environment** at SGS. [NB: this does not necessarily mean that the faculty supports funding to interdisciplinary activities / research].

Strengths

- Under the declared policy to 'distribute as much as possible of the faculty funding to the departments' the faculty leadership is impressively lean with a Dean, Pro-Dean, and a Vice-Dean at the top and a faculty office supported by a mere ten staff members under an administrative head of office.
- In a time where many universities have created upper levels (faculty/university-level) administrations of gargantuan proportions with all kinds of unclear tasks (communication, branding, etc) this is in itself an admirable achievement. Many academic institutions appear to have forgotten that the main university tasks are research and teaching. The University of Gothenburg has not.
- It is a strength that there are regular meetings in various fora between the two levels (faculty and department) and that there is some regular interaction between SGS and the university level.
- It is a strength that the university leadership praises SGS for its interdisciplinary profile and internationally recognised research. But does this have any further implications/benefits?
- During the site visit we noted that strategic work is emerging within the faculty and is becoming a prioritised area, now that control and support functions are in place.

Weaknesses

- In times when society (including international organisations such as the UN) calls for more and better integrated knowledge of social and natural dimensions of development and sustainability, it is a weakness that the University leadership has limited interest in funding cross-faculty research centres. It may not (or it may) have a direct impact on the SGS budget and/or on research opportunities and recruitment of staff at SGS. This is difficult to evaluate.
- The new leadership (as of July 2018) has to formulate and communicate new aspirations and visions, which must then be solidly founded in the centres, departments, and schools.

Recommendations

- In terms of aspirations, we recommend attention to: (a) the identification of best practices across departments as regards organisation and conduct of research; (b) the formulation of common ambitions regarding publication with articles in high-level journals and books with renowned publishers at the forefront; (c) attention to desirable standards as regards the quest for external funding from respected donors.
- One aspect concerns the future structure of BFF. Here we recommend staying with one unified committee and creating procedures that work to avoid an exaggerated focus on doctoral education.
- We recommend that SGS take the initiative to increase the dialogue with other interdisciplinary departments and centres to inform the university leadership of the importance of fostering interdisciplinary research at UGOT. There could also be some national initiatives on this (especially now in times of the *Styr- och resursutredningen* – STRUT (The Commission of Inquiry on Governance and Resources)).

B2. Recruitment

Strengths

- The academic staff at SGS (lecturers, PhD candidates) has become **increasingly international** with a **high-quality profile** now that staff is recruited from both the global **North** and the global **South**. The PhD profile, in particular, has become more oriented towards Africa and Asia.
- Recruitment committees at SGS have become more international and intersectional in their **composition**. Currently, SGS has a good recruitment policy emphasising open international calls and trial lectures and there are **clear structures** for the full recruitment process.
- SGS takes **gender seriously in recruitment** processes and seems to have both awareness and strategies for how to reach a gender **balance**.
- **Profile**: The explicitly international profile of the research staff (both junior and senior) is a strength, not the least for an entity like SGS with such an international research/education focus.
- **Recruitment**: SGS has clear and consistent routines for recruitment processes including selection procedures, interviews and trial lectures, and the composition of the recruitment selection committees.
- **Gender**: SGS has high awareness of both gender and diversity in the full recruitment process.

Weaknesses

- **Open calls**: It is not fully clear what an ‘open call’ means: does it mean that positions are labelled broadly but still oriented towards each core area or are they general positions within the broader SGS? The dilemma with ‘open calls’ may be the large volume of potential applications and the increasing number of less attractive/desirable/suitable applicants.
- **Recruitment**: The very **slow** recruitment processes (common at universities in Sweden) is an obstacle and very good candidates may get lost in the process.
- **Language proficiency**: It is a weakness that not all staff is bilingual in English AND Swedish. It may not necessarily be a weakness in the everyday working environment at SGS, but as regards recruitment to various university committees and leadership positions as well as in teaching in undergraduate courses it may be/become more of an obstacle.
- **Feminisation**: Will there be a feminisation of social science staff and in leadership positions? Is this a problem and if so, how will it be addressed?
- **Diversity**: Are there any difficulties – such as getting visas on time, etc. – resulting from the increasing diversity in recruitment of staff such as PhD candidates and lecturers?

Recommendations

- We support the need to take measures to speed up the process and recommend that recruitment review processes become faster. As a remedy, various incentives for evaluators can be improved if that is necessary to effectively speed up

the process.

- As regards language skills, we wonder if it may be worthwhile to hire a Swedish teacher for international faculty/staff to learn Swedish – to promote language skills up to a certain stage?
- Another suggestion is to more firmly implement the formal requirement to foreigners about learning Swedish (including lecturing) within a time limit – say three years.

B3. Career structure

The **uncertainty of junior scholar careers** is a general problem at universities and a condition that is difficult to change for a single department – it calls for more systemic changes.

Strengths

- SGS takes **career planning and career options seriously** and reflects on the problems related to postdocs and early-career options.
- It is a strength that SGS is able to offer an array of facilities for early career-researchers such as: a mentorship programme, special seminars/workshops, alumni meetings, and a full-paid extension to participate in a course on professional development.

Weaknesses

- The system with short-term positions can be an entry into teaching for a new PhD but it is also associated with uncertainty and vulnerability.

Recommendations

- **Support system:** We suggest that SGS could increase the number of workshops for early-career researchers with themes such as: career planning, funding, leadership, programme coordination and management, scholarship of teaching and learning, teaching portfolios, etc. At the site visit we noted that the faculty is also taking such initiatives so there is scope for collaboration.
- We also suggest that mentors be given something in return for their time and effort in the mentorship programme. If we consider it as an academic service it will not necessarily be in the form of payment but it could be in the format of a mentoring course, workshops, etc.
- **Early-career positions:** We support SGS' intention to create positions (with funding and better conditions) for early-career researchers such as junior researchers who have just completed their PhDs (*biträdande lektor*). Given the new international recruitment policy for the three PhD programmes at SGS, it would be a waste of human capital not to try to keep them for postdoc and/or lecturer or other positions.
- **Gender and Diversity:** We also support the SGS ambition to consider issues relating to gender/diversity in relation to recruitment now that internationalisation puts a pressure on increased mobility for early-career researchers. Is this seen as a bigger issue for women than for men, and for those who have partners and families?

B4. Funding

Strengths

- SGS has increased the awareness among researchers of the importance of external funding and the conditions for applying for external funding have improved.
- In the last five years (2013–2018) SGS has made an extra effort to increase external funding and to address a wider range of funders. The deliberate strategy to increase funding from an **array of funders** has shown to be successful, especially in 2018, when SGS received funds not only from the Swedish Foundation for Humanities and Social Sciences (RJ), VR Development Research and VR special calls but also from new sources such as the Swedish Research Councils for Sustainable Development (Formas) and Health, Working Life and Welfare (Forte), and the Swedish Energy Agency, etc (a total of at least SEK 60 million).
- The structures put in place for this have contributed to formalising the process, increasing gender equality, and decreasing the dependence on informal networks.
- It is a strength that SGS has extensive **resources to support grant applicants** with information, an **internal peer-review system with feedback**, and a set of successful application samples as illustration. It is also a step forward that SGS organises grant application workshops repeatedly in the spring semester, which is generally an intense period in the Swedish application system.
- It is also a step in the right direction to have invited the UGOT Grants and Innovation Office in for consultations on large-scale funding.
- It is a strength that SGS admits that it could become better at **communicating** to major funding agencies in Sweden that they fail to recruit interdisciplinary expertise in evaluation committees.

Weaknesses

- It is a systemic weakness that evaluation groups recruited by funding agencies in Sweden often lack interdisciplinary competence and thereby the ability to evaluate projects with an interdisciplinary profile and focus. However, it may be slightly misleading that all donors are at fault due to a failure to appreciate interdisciplinary research. Many important granting bodies, including the European Research Council, put a high premium on interdisciplinarity.
- As research universities become more reliant on public and private funding agencies, having an impact on society may mean solving problems that are defined in advance by the funding agencies. At what point or to what extent does such shaping of research agendas cripple researchers and make ‘open inquiry’ impossible?

Recommendations

- We recommend an even higher awareness of external funding. We also recommend considering a reward system for taking home important external grants.
- We suggest that, if SGS has the capacity, it could/should seek to apply for EU-funding, e.g. by drawing on European contacts (and beyond) and building

a support system for large-scale projects with large-scale funding. Some steps have been taken in that direction already.

- We suggest strengthening the internal screening system for external grant applications even further and to call for better support from the faculty/university-level. There is also a potential to learn from a systematic review of recent successful grants.
- We support the SGS initiative to join others in Sweden in the effort to inform major funders in Sweden about the need for improved interdisciplinary expertise in evaluations committees. This has been and still is a major problem, and thus concern, for many interdisciplinary researchers.

B5. Feedback and evaluation

Strengths

- SGS appears to have a good feedback and evaluation system in place. The system includes annual development dialogues and performance reviews with all academic staff, as also requested by the Swedish authorities.
- For various reasons, SGS does not evaluate or measure individual research performance with quantitative indicators. The calculation of **total performance** by various quantitative indicators can offer a good **overview** of total performance. This is, for example, how we see that publishing records have improved since 2010. But the calculations for **each area** may also yield useful information. Beyond that, it may, as now, be optional to evaluate academic staff individually in quantitative terms.
- It is a strength that SGS identifies and supports staff who may have challenges or a downturn in their career.

Weaknesses

- It is time-consuming for the leadership to have an annual dialogue with each academic staff member. On the other hand, it pays off in terms of generating a valuable overview of the total staff capacity at SGS, and a good individual (and fair) feedback system on academic performance.

Recommendations

- In parallel to the support for funding, there could possibly be increased support for writing and publishing for early-career researchers. There are some such 'write-shops' but this could possibly be strengthened. Also, here there is scope for collaboration with the faculty. The means saved from scaling down the budget for the **very expensive** faculty-based courses can be used for other courses and workshops. Please bring it up with the Vice-Dean who seems to be aware of this.
- Based on the self-evaluation, we suggest that SGS introduce a system for annual development dialogues and performance reviews with all administrative staff – who support research and should have opportunities to advance.
- We think that the scepticism against quantitative indicators – as a feedback mechanism – is relevant but perhaps somewhat exaggerated.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- SGS collaborates broadly, both internationally and nationally. There is a great deal of formal and informal collaboration through a significant number of SGS networks – within UGOT, in the region of Gothenburg, in Sweden, and internationally.
- The wide **local, national, international, and intercontinental collaboration** is a strength in terms of bringing interesting research on the agenda. Researchers at SGS pursue research on multiple ideas and issues with partners in many countries in most continents. SGS researchers participate actively in joint research projects, international conferences, workshops, editorial boards and organisational leaderships roles.
- SGS has a Guest Researcher Programme and frequently invites international scholars as guest lectures, researchers, and PhD opponents.
- In a special and very successful research programme with Rwanda more than a dozen PhD candidates have completed their degree.
- It is a strength to have identified the need to collaborate with the International Centre at UGOT.

Weaknesses

- It is a weakness that the faculty has not dedicated more support to external relations officers. Here, lessons can be learned from the School of Business, Economics and Law at UGOT.

Recommendations

- We agree that it is a good idea to seek further funding for **guest researchers**. It would also be good if SGS could make efforts to push the **faculty** in the direction of more funding for international initiatives and support. Hence, we support SGS' call for more backing from the faculty level in terms of deepening academic collaborations. The review panel for the Faculty of Social Sciences has suggested that the faculty consider appointing a Dean for Internationalisation.

C1.2 Collaboration with external stakeholders

Strengths

- SGS can boast extensive and diversified patterns of collaboration with external stakeholders. SGS **integrates outreach activities** and collaboration with stakeholders into **research and education** on global issues and challenges.
- SGS is a well-established platform for mutually beneficial knowledge exchange and researchers who engage with civil society, government agencies (several ministries and authorities), media, schools, and the general public.

- SGS has a wide national network of collaboration with various institutes and organisations.
- SGS also has an extensive collaboration with various partners in Gothenburg such as the City, Mistra Urban Futures, etc. As an example, SGS was asked to evaluate the reception of refugees in 2015–2017.
- SAMINT, the colloquium on cooperation and internationalisation, has formulated an SGS collaboration strategy starting in 2019 to expand collaboration beyond academia (such as the general public, and media). During the site visit, we got a good impression of their work and the ambition to expand the networks for outreach while also opening these networks up to all researchers at SGS based on the principle of equal access. SAMINT also assists researchers in finding outlets for outreach activities, and supports researchers who are exposed to strong reactions from voices in civil society – be it in the form of hatred or threats.
- There are also plans to improve the website to increasingly address non-scientific audiences, and there are plans to invite practitioners for sabbaticals.

Weaknesses

- Not all non-academic collaborations will significantly benefit SGS research. They may be worthwhile anyway, but a further discussion on this remains relevant.

Recommendations

- SGS wants to expand non-academic collaborations further. In doing so, it needs to incorporate reflections on the relationship between research and non-academic collaboration. Are the two always mutually supportive?
- The collaboration with Rwanda University on a peace and development programme, for example, can also be seen as academic development aid.
- We agree with SGS that the website could possibly become more informative and accessible also for non-academic audiences. At the site-visit we learned that the newly recruited communicator working for SAMINT is working on this issue.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- **Research collaboration** with external stakeholders is a core activity at SGS.
- It is a strength that these activities are supported by the leadership and that researchers and teachers are encouraged to participate.

Weaknesses

- Cooperation beyond academia can also be time-consuming.

Recommendations

- In case SGS intends to increase outreach activities even further, these could possibly become more coordinated. With increasing demands on researchers

to conduct outreach there may be an increasing need for *more coordination and service support*. During the site visit we learned that SAMINT is working systematically on this.

- We suggest that there is scope to increase outreach *communication* based on research and teaching at SGS. During the site visit we learned that SAMINT is working systematically on this.

C2.2 Research relevance and impact on society

As a starting point here, and given that research and education at SGS is oriented towards development, globalisation and sustainability, it is most likely relevant for the SDG agenda.

Strengths

- There is no doubt that **SGS is highly eager and willing to bridge the gap** between abstract research and its practical applications. The work of SGS as advisors and consultants would appear to be **particularly valuable** in this regard, because it can feed back into improving research at SGS.
- SGS leadership strongly supports collaboration with non-academic stakeholders. The panel agrees that this strengthens the school's outreach and service to society.
- If we consider **education** as an **outreach activity** then SGS has a profound impact also in terms of educating and preparing large cohorts of students for a future professional life in the economy, in politics, or in social sectors of society as well as in many parts of the world. Since 2005, several thousand students have graduated from SGS and based on that SGS could stress its **impact** on society – also in relation to funding agencies.
- SGS has a long repertoire of practically-oriented **action research**, such as the Padrigu Consultants (Peace, Development and Conflict).
- SGS researchers are often approached as **advisors and consultants** and have produced several special reports for the Swedish Ministry of Foreign Affairs, the African Union, and the African Development Bank among others.
- It is a strength that SGS is experimenting with a variety of outreach formats, including drawings, photos, artistic performances, etc.

Weaknesses

- Although outreach serves many good purposes, we like to stress how the university system places extra demands and pressure on teaching researchers to engage more in outreach activities, however, SGS is careful to balance such tasks with other obligations.

Recommendations

- Since time is always scarce, the leadership must also reflect on the extent to which these otherwise worthy activities demand time away from research and teaching.
- If SGS has the ambition to expand outreach activities even further (although not at the expense of research and education) then we agree that there could be an

increased service function, maybe a coordinator, who could assist in planning and arranging meetings with various external partners such as media, schools, etc. Some of the educational material could maybe also be used more or less directly in schools. At the site visit, we learned that this work is already in progress.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

The RED process, which separates teaching and research, makes it difficult to evaluate more exactly how research influences teaching. However, from the self-evaluation we learn that 'several thousand graduates' have been informed about SGS research through its teaching.

Strengths

- Overall, there is a **strong link** between research and teaching at SGS. The SGS should be praised for that, and it can be argued that teaching-based research is as important as research-based teaching.
- All educational programmes are closely associated with the main research themes and/or issues, which contributes to making education and teaching interesting for both students and teachers.
- All academic staff (researchers) teach at least 30 percent and all teaching staff have 20 percent research time.
- At the graduate level, certain courses or modules are **directly associated with the research** of teaching staff. Such research also serves as the basis for writing **textbooks**.
- Several research projects at SGS offer internship opportunities to master's students.
- Every year several dozens of students serve as interns in various international organisations.

Weaknesses

- No obvious weaknesses.

Recommendations

- Given that the approximate requirement of a minimum of 30 percent teaching is rather low compared to what may be recommended elsewhere in Sweden, 40/60, or the 50/50 that is common in many other universities in other countries, the discussion on teaching requirements could continue.

C3.2 Doctoral education

Strengths

- PhD candidates are generally well-resourced including office-space, equipment, full library and IT facilities, scholarships for fieldwork, and a personal conference budget of SEK 10,000.
- PhD completion rates are very high and are usually achieved within 4-5 years in ESS and PD.

- Given the poor completion rate in SANT, it is good that a change was made to the curriculum in 2017.
- There are plans to develop a CCM-owned PhD programme (self-evaluation p.19).
- Procedures vary between the three major directions at SGS. In PD, seminar leaders will appoint a postgraduate discussant at each seminar for them to practice the role of peer-reviewing.
- PhD candidates contribute in many varied ways. Some have introduced new theoretical perspectives to their department, such as for example critical geography, or post-human ecology.
- Many PhD candidates collaborate in projects with SGS researchers, and some are also hired by these projects (up to 20 percent).
- They also take on member- and leadership positions in various national organisations, such as International Studies Associations (ISA).
- They are also active in presenting at conferences in all three programmes.
- Beyond that, PhD candidates are also active in the SGS blog-writing (see home page).

Weaknesses

- SANT has experienced a poor completion rate; but measures were taken in 2017 to change this.

Recommendations

- We recommend that PhD candidates also collaborate with each other, maybe in co-authored publications (conference papers, journal articles). During the site visit, we learned that PhD candidates experience that there are many demands on their time, but some also expressed the wish for more (interdisciplinary) collaboration.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There appears to be a sound and vibrant academic culture at SGS.
- Several structures and initiatives have enhanced the academic culture.
- The Annual SGS Day (in August) is a good recurring event for discussing various issues. In 2018, the topic was outreach, which was probably a good choice given the stronger focus on that as of late (including the SAMINT strategy plan).
- As part of the academic structure, there are several regular seminar series (in total over 60 seminars per year) and ongoing research group discussions.
- There are also some general seminars on research ethics etc.
- As a further structure to promote research skills, there are recurring workshops with feedback sessions and peer-review with a focus on writing and publishing.

- Over the years (since 2010) SGS has increased the salaried time for professional development such as research, course work, mentoring, substance development, and other professional duties.
- There is also a sabbatical programme for senior lecturers (docent) and professors.

Weaknesses

- The sabbatical arrangement is a good thing, but it should avoid taking lecturers and professors out of teaching for prolonged periods of time.

Recommendations

- We recommend intensifying the interaction and exchange between the different seminar streams in order to increase interdisciplinarity further, not the least to get an opportunity to discuss theoretical and methodological issues. PhD candidates and their supervisors would benefit from some regular joint seminars across fields. The programme coordinators could take such an initiative.

D2. Publication

D2.1 Publication strategy

Strengths

- The overall goal is to make both scientific and social impact and part of that can be reached via international publication in peer-reviewed journals of high quality.
- Research based publications vary from books, chapters and journal articles with international publishers to texts that are more popularised and aimed at the general public.
- The publication record has increased significantly since 2010, both in terms of numbers and in the quality of outlets. Most publications are now geared much more explicitly towards international peer-review journals than towards books.
- Given the gender differences at Swedish (and most other) universities, it is promising that women seem to have a higher publishing record at SGS.
- SGS arranges workshops and mentoring sessions to give advice on publishing.
- It is a strength that SGS is developing an Open Access Strategy.

Weaknesses

- The **decline in book publishing**, including the absence of Tier 1 monographs in the recent period, should be a cause for concern.
- Although the ‘significant downswing’ in the publication of books is not desirable in absolute terms it reflects international trends. There are (at least) two problems associated with this. Monographs may offer more and deeper insights into a problem area, especially if it is a qualitative study, and researchers within SANT may require a minimum of one monograph for promotion, but it is hard to tell.
- **Open Access** is principally desirable, but the way in which dominant publishers presently promote it is a **threat to universities and departments**, SGS included.

That is because open access publication will be **very expensive for scholars** and the funds must often be taken from budgets already under pressure. This issue requires attention and maybe collaboration with other scholarly milieus.

- It is a weakness that academic staff do not consistently report their papers and publications in GUP, but SGS is aware of this and will encourage staff to fulfil this task more consistently.

Recommendations

- SGS has a fine record in international publications. The panel strongly supports (a) the continued emphasis on (books) monographs *also*, even if articles now dominate in the academy; (b) the ongoing reflection on where to publish, preferably with emphasis on high-level journals and book publishers.
- We agree that it is essential that all relevant output, including conference papers, be reported in the university's GUP system. Conference papers can later be turned into publications.
- In terms of Tier 1 journals and Tier 1 books, there is room for improvement at SGS. We suggest that this should be supported through discussions on publication strategies.

D2.2 Analysis of bibliometric data

Strengths

- Researchers based at SGS publish increasingly more in international peer-reviewed journals, including some with high(er) impact factor.

Weaknesses

- Researchers based at SGS publish increasingly fewer books.

Recommendations

- We recommend considering the balance between publishing journal articles and books.
- We noticed that PhD candidates publish in a range of different journals. This is a reflection of the diversity of research topics and most probably a strength. However, if the SGS intends to sharpen its core profile then it may be an alternative strategy to make SGS scholars visible in fewer outlets.

D3. Facilities and research infrastructure

Strengths

- Overall, facilities and research infrastructure are adequate at SGS. Given that SGS is a social science-oriented workplace for research and education there are no extraordinary demands on infrastructure.
- SGS is developing a strategic programme to enhance safety awareness in preparation of field research not the least with marginalised or vulnerable populations. It will provide tools for making proper risk assessments. There is also a Security and Protection workshop (2 days).

- There are also facilities in place for post-field-visit treatment of various issues, including health issues.

Weaknesses

- The closure of the library branch at SGS campus is a step backward. SGS fought this closure.
- There is more need for public relations facilities.

Recommendations

- We agree that if the funding is available, SGS could employ a public relations specialist, yet what would be the main task for a person in this position? During the site visit, we noted that there seemed to be some agreement among subject heads that differentiated salaries may create more tension (and an extra workload) than benefits.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- SGS has successfully created an environment with a very high level of equal opportunities and gender equality. When a systematic review showed that there was a certain degree of wage discrimination against women this was addressed and solved in 2016 / 2017.
- There is a consciously adopted strategy to work towards gender equality in recruitment, promotion, opportunities, treatment and salaries.
- Although the proportions (between women/men) have varied over time, there is a good influx of both women and men to PhD positions, and as of 2017 there is a good gender balance given the recent recruitment of more men than women.
- In administrative positions there are more women than men, this may not be either a strength nor a weakness.

D4.2 Internationalisation

Strengths

- SGS has successfully moved from mainly internal hiring to mainly external hiring, a shift recommended in RED10.
- More staff (mainly PhD candidates) have been recruited as of late from the Global South. This means that the diversity at SGS now better reflects the diversity in places where SGS research takes place.

Weaknesses

- It is difficult to find any particular weaknesses here. Hopefully, seniors share their networks with junior colleagues.

Recommendations

- We agree that it is a good idea to further strengthen the recruitment of staff from the global South.
- It is not fully clear whether all hiring is now required to be external, a move that the panel would not recommend, however. A certain degree of continuity in faculty is also important.
- It is positive that the SGS wants to recruit staff from the Global South.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Internal research support appears to be well organised at SGS. It is a strength to have the capacity to organise big national and international conferences and there are some good examples of that, for example the Development Research Conferences (in 2016, and in 2018).

Recommendations

- We support the hiring of a non-academic staff member responsible for conference administration (or the allocation of time for this task by someone already employed). It should be considered whether this function should be the responsibility of the faculty level.
- Yet, SGS could perhaps also think in terms of how to arrange more virtual meetings and workshops?

E2. Faculty and University-wide support

Strengths

- The SGS interacts well with the Faculty of Social Sciences. Please see the faculty review for more details.

Weaknesses

- Faculty-level support for research is limited and support from the university-level is lacking in some respects. In relation to the faculty, there could be more support as regards: budget issues such as funding for interdisciplinary centres and activities; communication; conferences, etc.
- The possibility of introducing a ‘dual degree’ is also hindered by many administrative (and organisational) obstacles that need to be addressed at the faculty level.

Recommendations

- We recommend a rethinking of the relevant support functions in relation to all three levels of administration in order to create a set-up that is both effective and lean.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

According to RED10, SGS offers a creative interdisciplinary academic environment with a high degree of substance relevance and international collaboration. Since 2012, SGS has followed the RED10 recommendations to **improve and restructure** its leadership, management, organisation and other areas.

SGS has made considerable efforts to work with the RED10 recommendations, and in RED19, these efforts are discussed in relation to academic culture, collegiality, infrastructure, leadership and publication records.

In particular, SGS has successfully responded to advice in the following areas: publication culture and publication strategies have been reformed towards a much larger share of internally peer-reviewed publications. The overall leadership structure has been reformed and strengthened, as have the leadership and coordination of the three PhD programmes, and administrative support systems. Hiring patterns have changed focus towards external rather than internal recruitment. The mean duration of a PhD has been reduced sharply. SGS also dismantled or reorganised weaker RGs. Challenges remain, of course, as the panel has specified elsewhere in this report – and will return to in the concluding section.

LEADERSHIP AND ACADEMIC ENVIRONMENT:

The overall ambition has been to make the new leadership clear, visible and transparent. SGS has strengthened the leadership structure with **formal organs and committees** as well as via stronger research groups and specific groups such as a **professors'** and a **supervisors'** colloquia. The deficit in senior staff (professors and associate professors) is resolved through **external recruitment and internal promotion** to these categories, as is the gender imbalance. Both the SGS mentorship programme and faculty programme in support of women's promotion have been instrumental in the **promotion of women** resulting in an increasing cohort of women professors.

The academic work environment is **international, structured** and generally **supportive**, but it is negatively affected by the high degree of job **insecurity** for early-career researchers – an issue that needs to be resolved beyond the departmental level, and in combined efforts with the faculty level and maybe also the university level. Please see the Concluding Recommendations of the Faculty of Social Sciences' panel report.

ACADEMIC CULTURE:

SGS has improved academic culture and collegiality in terms of peer-reviewing applications, and through international exchange and a Guest Research Programme.

FUNDING:

SGS has increased external funding from an increasing number of funding agencies – not the least in 2018.

PUBLICATIONS:

In addition, the mentorship programme has increased the awareness of **publication strategies** and the **publication record** has **increased significantly**, not the least in **international peer-reviewed journals** while in-house publications have **‘dropped dramatically’**.

RECRUITMENT:

SGS has been successful in recruiting new staff (for PhD programmes, postdoc positions, and lectureships) from outside UGOT, and internationally. SGS has recruited a larger cohort of female professors, partly through mentorship and faculty programmes, and more senior lectures, both through internal promotion and external recruits.

PHD PROGRAMMES & POST DOC LEVEL:

The leadership of the **PhD programmes** is stronger now with the **supervisors’ colloquium** and more **decision-making power** for the **coordinators**, and increased **human resources support**.

The **postdoc level** is also more **dynamic now** and many postdocs spend time at **other universities**. The time taken to complete PhDs has been considerably reduced.

INFRASTRUCTURE:

The **infrastructure** has improved with increasingly useful **information on the staff portal** including rules, regulations, and guidelines for academic staff and for **funding**. It has also improved in terms of programme coordination and administration of PhD education.

INTERNATIONALISATION:

SGS had a strong **international profile** already in 2005 and this has become even stronger now with a growing **influx of PhD candidates, postdocs, lecturers**, and visiting scholars.

SUGGESTIONS FOR IMPROVED INITIATIVES/FUNDING FROM THE FSS:

Generally, in the Swedish university system, there is a **need for improved and more secure career paths** for younger researchers (early-career researchers). This situation must be addressed in several instances within the university system and definitely (also) beyond the department level. This is also strongly recommended in the Faculty of Social Sciences’ panel report.

The faculty needs to further support (and secure?) the funding for interdisciplinary research centres such as GCGD and CGM since these are inter-faculty entities and thus the responsibility of several departments – or alternatively – the faculty.

F2. Other matters

No further comment.

CONCLUDING RECOMMENDATIONS

CONTENTS

1–3: We start from the **task**, the **visit**, and the **RED19 preparations** at SGS.

5–9: We continue with a **description** of SGS – and what it has **accomplished** (history, research standing, leadership, academic culture and identity), and round it off with **recommendations**.

10: We bring up **priorities** and **challenges** expressed by **research groups** during our site visit at SGS and include a section **on recommendations** for each of them.

11: We offer a **succinct positive statement**.

12: We end with an **afterword**.

1. THE TASK

Our overall task as reviewers, as we interpret it, is to make recommendations for improving decision-making processes, line management structures, collegial fora, and overall working conditions, which serve to initiate, foster, and produce high-quality research. Our main objective is to analyse conditions and processes that foster high-quality environments that are conducive to the strategic renewal of research. To that end, we have reviewed the SGS self-evaluation, other documents, and a rich qualitative empirical material generated from our site visit at SGS, during which we gained further insights about priorities and challenges associated with leadership, working conditions, and research directions and performance.

2. THE SITE VISIT

We met and discussed with around **35 individuals** from seven categories. We met all three representatives of the **leadership** group (LG); all three PhD programme **coordinators**; eight (seven) **PhD candidates** in ESS, PD and SANT; six **supervisors** in ESS, PD and SANT; five **postdocs**; four representatives of **SAMINT** (Section for Outreach and Internationalisation); and ten heads of the **subject councils** and **research groups**. Finally, to round off the visit, we met with the leadership group for a **feedback** session where we presented some of the ideas following below.

3. THE RED19 PROCESS AT SGS

As an introduction to this document, we want to stress that the RED19 process at SGS worked very well, including all preparations for our visit. In contrast to the RED10 one-man show, the writing of the RED19 self-evaluation was a participatory process. It was also constructive. It helped organise bottom-up processes such that faculty could think collectively about a variety of things and discuss them strategically with each other. When the leadership confronted particular issues or problems, it would set up a workshop to tackle that. The overall challenge of the process, and as one researcher mentioned, was to balance ‘how great we are’ with ‘the desire to be honest about what we do’.

4. THE HISTORY OF RESEARCH AT THE SCHOOL OF GLOBAL STUDIES

The School of Global Studies includes three different research fields: Anthropology (SANT), Environmental Social Sciences (ESS), and Peace and Development (P&D). These fields were institutionalised within the Western academic research tradition at different historical moments. Anthropology acquired its disciplinary status in the late 1800s; Peace and Development emerged as an interdisciplinary focus in the 1970s; and ESS originated with the Human Ecology of the 1970s but emerged as a new interdisciplinary field after 2013 and in response to sustainability science. Hence, the diversity in fields, subjects, and research themes is high, covering a wide spectrum from humanistic social sciences to environmental sciences.

This particular set-up creates a potential not only for fruitful collaboration and interaction, but also for substantial theoretical, methodological, and organisational friction stemming from the tension between disciplinary and interdisciplinary approaches at SGS.

5. THE RESEARCH STANDING

Each of the three research fields at SGS is successful and the level of research quality is generally high and mostly clearly above average. Since the recent major reorganisation at UGOT, launched in 2013, the three fields have improved their communication with each other. We agree with the staff at SGS – across all research fields – that pluralism in theory, methodology and substance is a great asset. To exemplify, this is reflected in the high number of applications to the PhD programmes attracting applicants from many countries including the Global South, with a wide range of proposed topics.

However, we have the impression that SGS is not making the most to exploit the full collaborative capacity in research and the potential synergies of its disciplinary diversity. As an initial point to return to later, we suggest that fruitful synergies be reaped from setting up research projects across the three fields and by harvesting core ideas from each of them. To mention one example, the combined assets of SGS research competences would be a very fruitful starting point for studying the emerging world order in times of major global environmental change, increasing conflict levels in fragile states and the renewed importance of local and national identities.

6. THE CURRENT MANAGEMENT SITUATION AND LEADERSHIP STYLE

The SGS leadership – together with faculty and other staff at SGS – has worked systematically, and successfully, to implement the recommendations from RED10. This is reflected in how external funding, international recruitment, and outreach activities have increased, and in how procedures, processes, and support structures have become more streamlined, transparent and well-functioning.

Starting in 2013, UGOT went through an organisational shift in leadership structure from a model of collegiality to a model of line management in combination with a major decentralisation process, implying that decision-making power was

partly transferred from the faculty level to underlying units. In the Faculty of Social Sciences (FSS) panel, we learned that the faculty has been at the forefront of this transition to turn the faculty level into a lean and effective entity (i.e., a vessel) for downward (re)distribution of financial means and policies. Meanwhile, the FSS remains a facilitator in assisting, supporting and controlling underlying units in following administrative guidelines and routines and in adhering to ordinances and legislation in general. From the SGS leadership we learned that the FSS leadership is approachable and constructive in its revised role, and that the new model is functioning well, despite the inherent tension between the new top-down processes implied in line-management and the former bottom-up processes implied in collegial leadership.

It is our impression that the SGS leadership has made a strong effort in combining the best of the two different management styles. It has worked systematically to put adequate structures into place that allow for clear and responsible decision-making while keeping and nurturing the constructive and participatory aspects of collegiality such as the processes of anchoring decisions at SGS. Despite the fact that the department council now only has an advisory function, it operates as an influential collegial forum open to communication with faculty and staff, thus balancing the line-management structure. We also appreciate the readiness and willingness to set up appropriate committees and workshops when called for, be it when policies make new demands on researchers, or when there is a need for strategic thinking such as in the case of career planning, funding, and publication strategies.

To sum up on leadership, SGS is nurturing collegiality and bottom-up processes while embracing and ensuring responsible decision-making. In line with this, the SGS leadership strives towards clarity and legitimacy such as opening up informal networks that in the past have had exclusionary effects. Also, as regards budgetary and financial issues, it is important to be informative and transparent.

7. THE ACADEMIC CULTURE AND IDENTITY AT SGS

In discussions with a variety of subgroups at SGS, we learned about the open academic culture where colleagues are available and approachable for advice and consultation, not the least in terms of assisting PhD candidates. Such fruitful conversations and exchange of ideas and advice go beyond a strict supervisor-supervisee relationship. From postdocs, there is a call for mentoring and support from seniors, especially if SGS intends to keep and foster this group of successful young scholars who are exposed to strong national, and international, competition for funding and jobs.

Among senior staff, we noticed, unsurprisingly, that there are differences in theoretical views and methodological approaches as well as in the degree to which they prioritise conceptual consolidation – of, for example the phenomenon of globalisation, the scalar terms of local to global, or even the field of Global Studies. Many researchers explained that they benefit from the dual identity of being part of SGS while also belonging more closely to a particular research project, subject

field, theme, or discipline. It is obviously a strength that many researchers have a sense of belonging to the SGS. But it may pose a problem if it is more of a loose umbrella connection that does not go beyond the focus on complex interconnected global challenges. This is exactly the point, where we would like to propose an intervention – to which we will return below.

Part of the identity issue lies in the tension between disciplinary and interdisciplinary positions, and in the tension between the older and the newer generation of researchers – not necessarily age based but in terms of duration of their contracts (i.e., how long they have been at the SGS). Some, who came in the early 2000s (or before that) sense that they were ‘pushed’ into a forced marriage across disciplinary boundaries when SGS was formed. However, a more recent cohort of researchers may associate themselves less with a discipline and more with a cross-cutting research theme or a larger problematique.

To sum up on academic culture, we have the impression that researchers at SGS appreciate their working place for its open atmosphere, its exciting environment with multiple perspectives to draw from, and the room for bottom-up initiatives. We fully appreciate the SGS pluralism. Yet, we propose that there are potential synergies to be harvested not only from that – but also beyond pluralism. As we see it, SGS could set up the dual goal of creating stronger links across the generational and disciplinary ‘divides’, while simultaneously sharpening its profile. In a competitive world, where younger scholars need to stay (or even become more) competitive compared to those trained at other strong Global Studies centres, they must be able to respond wisely and precisely to the question: What is so special, or unique, about a researcher coming out of (or being based at) SGS? What are the defining skills acquired during under/graduate/postgraduate education at SGS?

8. FUNDING, RECRUITMENT, & POSTGRADUATE EDUCATION – ADDITIONAL REFLECTIONS

SGS has introduced supporting structures, such as a special workshop and peer-reviewing, to encourage and promote the process of applying for external funding. As another step here, SGS could probably draw further useful lessons from a systematic review of successful applications.

SGS deserves praise for having sped up the PhD process while also increasing the completion rate of theses. In the coming years, we heard, it might be difficult to ensure an influx of PhD candidates, mainly in anthropology and ESS. We would like to highlight this as an issue. But we have no direct recommendation for how to tackle it except for the general advice of applying for project funding while bearing in mind that this also has its limitations as regards the short duration of projects. This, along with the challenges of being enrolled in a pre-designed project while most PhD candidates are enrolled based on their own individual projects, may be something to think more strategically about. We would also pose the question: What are the pros and cons of PhDs entering SGS based on their own particular

proposal? Is there a risk that although pluralism is embraced at the SGS projects may become so disparate that there are few connecting dots? This may dilute the research profile of SGS, or at least not help consolidate it, if that should be a priority in the next coming years.

9. THE SCOPE FOR IMPROVEMENT BASED ON RED19

Here we will discuss the scope for further interdisciplinary integration for the sake of a clearer SGS profile, and for setting up projects with broader RQs addressing issues/challenges where SGS has a competitive advantage – and edge. Hence, the question is: Can you unify around ‘something’ and also clarify your profile: ‘What is Global Studies?’

Main recommendations – the need for a boundary object

It is our impression that PhD candidates and junior researchers who apply for positions at SGS expect interdisciplinary collaboration across disciplinary divides. The extent to which PhD candidates experience this, once they are enrolled, seems to vary between the three programmes. This implies that the full potential of interdisciplinary interaction is not yet reached, especially since research seminars in the three programmes run in parallel (at the same time on Thursdays).

We recommend that the coordinators for the three PhD programmes organise more joint seminars for regular exchange of ideas between all PhD candidates. Preferably, supervisors and assisting supervisors would also be invited to and attend these seminars.

It is our impression that besides the appreciation of pluralism there is room for more systematic collaboration on – and even synthesis of – theoretical and methodological issues. The long-term experience from interdisciplinary – or even trans-disciplinary – education and research at SGS bodes well for drawing constructive lessons that could feed into larger projects or new courses.

We recommend that SGS clarify and sharpen its research profile. A joint project towards that aim could be in the format of designing an obligatory PhD course for all SGS PhD candidates.

The purpose of the course would be to clarify what Global Studies at UGOT stands for in relation to the worldwide debate, and to clarify what the three different postgraduate programmes at SGS have in common. If you find too few commonalities across them, then the course could be an opportunity to think strategically across the divides while also suggesting a profile that welds the three more closely together – while keeping their distinctive characteristics. The course is also a boundary object that may bring researchers/supervisors together around SGS – and generate some common conceptual language. The challenge here is to overcome the resistance against conceptual consolidation. For that, you need to be open to serious discussions on methodology.

A postgraduate course for all three PhD programmes: an example

A joint postgraduate course for all three PhD programmes could trace the history of globalisation and development, including their main debates, issues and controversies. Special consideration would be given to the contributions from PD, Social Anthropology, and ESS. The methodology section would be a strong element, with a general introduction to research strategies covering not only qualitative modes of inquiry, such as ethnography and single case study/comparative case study design, but also other qualitative research strategies (discourse analysis, grounded theory, phenomenology, process tracing) and quantitative research designs (surveys, etc.), as well as tools such as GIS, and a discussion of the implications of 'big data' for SGS research. This would provide the basis for discussing the 'SGS take(s)' on methodology.

10. CONCRETE GROUP BASED RECOMMENDATIONS

In this section, we return to each research group that we met during the visit, and summarise our impressions from these meetings under the headings of **Priorities** and **Challenges** as expressed by group participants followed by our **Recommendations**. As will be noticed, there are certain overlaps with the text above.

The SGS leadership

Priorities:

Keeping a broad profile: SGS has strong professors in all three fields and wishes all fields to be strong while strengthening the linkages between them. In funding and PhD supervision, there is increasing collaboration across the three fields, mainly since 2013, and the younger generation may have more of a shared identity of belonging to the SGS.

Securing careers: SGS is moving away from temporary to permanent positions and seeks to manage the generational shift while keeping a broad research focus.

Providing good education: SGS has attractive educational programmes that are economically viable and offer substance, academic writing, and generic skills.

Exercising sound leadership: The line management structure is more top-down oriented and the SGS leadership has therefore ambitiously increased transparency while fostering an academic culture of strong collegiality with clear and well-functioning structures, procedures and committees. There is an explicit move away from informal decision-making to open and participatory processes and with improved communication across the three subject communities at SGS. Development dialogues between leadership (heads of department) and staff have become a useful tool for both an individual and departmental overview of the working environment and research status.

Challenges:

Despite the high success rate in external funding, SGS might still need further funding. A bigger budget would allow for more '*biträdande lektorer*' (instead of temporary research positions) while also securing the influx of PhD candidates and postdocs. Professors who aspire to build inclusive research environments also need to apply for external funding. Focusing on quality and excellence, the leadership needs to think strategically about how to resolve the tension between the three fields and how to support each of them while avoiding unfair financial allocation. Career planning for younger scholars is also on the agenda and for that more networking with external labour markets is needed.

Recommendations:

We recommend that SGS initiate work to **sharpen its profile** while still embracing pluralism. We recommend that SGS collaborate internally (SAMINT) and with the faculty to build contacts and network with potential employers in the region (and beyond), perhaps in the format of a job-fair (see below).

PhD coordinators

Priorities:

The coordinators are happy with the recent restructuring of leadership and management at SGS and they are satisfied with how the programmes are set up and how they operate – and collaborate. As a reflection of that, the PhD completion rate has increased and there is a good set of courses. Many of them are offered jointly to PhD candidates from both the programmes in P&D and ESS.

Challenges:

For further recruitment, there is a need for more faculty-funded PhD positions. The PhD candidates in the system must handle a high level of stress. Given that many PhD theses may be case-oriented and empirical in style, it is desirable to prioritise theory in postgraduate courses.

Recommendations:

We recommend that collaboration across the three programmes be increased even further; all PhD candidates should be introduced to a **wider set of research strategies** beyond ethnography, case design and qualitative research; a common course for all PhD candidates should be created founded on a shared, comprehensive theoretical and methodological content with Global Studies at its core. We argue that it is important for everyone who has a PhD from SGS at UGOT to be knowledgeable about the central substance and the history of the field of Global Studies. Beyond that, all PhDs can, in context of their specific project, have a distinctive profile of their own.

PhD candidates

Priorities:

Priorities entail good career prospects and a good working environment including interdisciplinary communication between PhD candidates and supervisors in the three programmes, and a high degree of accessibility and support among staff.

Challenges:

There is a need for information and strategic thinking about career paths in academia and beyond: What kind of labour market and employment opportunities can be expected within and outside of academia and what is the appropriate career planning? It is a problem for PhD candidates who aspire to stay in academia that they have to apply for funding before their thesis is completed. They work hard and have a high degree of stress in trying to excel in research. Demands are increasing both on what is expected from a PhD thesis (i.e., the Kappa tends to expand into a mini monograph on top of the four articles, one of which needs to be published at the time of defense). The question is: How can PhDs build a career in academia and beyond? How should they handle the many demands on their time: research, teaching, networking, and applying for funding?

Recommendations:

We recommend that SGS rethink how undergraduate/graduate **course conveners** are appointed. It seems to be too time-consuming for PhD candidates to take on a convening responsibility for big groups of students, whereas shared coordination between juniors and seniors could be an option.

We recommend that SGS – in collaboration with the FSS who has shown interest in this – promote the issue of **career planning** for young researchers. One aspect of this could be to introduce a short and credit-based **course** on how to learn from and write successful applications for external funding. One way of combining career planning with outreach activities would be to **organise a job-fair** where PhD candidates meet with potential employers. SAMINT could be instrumental in assisting PhD candidates with this task – and again – in collaboration also with the Deputy-Dean of the FSS.

PhD advisors

Priority:

Pluralism and diversity in topics are encouraged and so is team-based supervision in teams of two, or sometimes three, supervisors. Some even say that pluralism must *increase* as regards methodology (for example, beyond case and ethnography). There is a variety of candidates, but similar guidelines, structures and expectations bring them together under one umbrella. There are some efforts to align them further. It is a priority not to create competition between the three programmes, including their staff.

Challenges:

With increasing competition for funding, it may be difficult to recruit new PhD candidates. SGS will thus have to look for regional finance and bring in stakeholders to finance PhD projects. That may solve some issues but create others because stakeholders have their own interests that may result in a clash with academic freedom. Double degrees are another alternative. As regards first-authorship, issues may arise for project PhD candidates, but there is an increasing awareness about this.

At the graduate level there is interaction between programmes. The ambition at postgraduate level is to increase interaction among PhD candidates across the three programmes. The number of supervisors is increasing but it is still a challenge for supervisors to cover more tasks – such as more interaction – than they do currently.

Collegiality among supervisors is functioning well and the collective tackles problems together. When PhD candidates feel lonely in their subject area or feel a need for more integration then supervisors may set up special meetings to discuss common issues, especially in case there are thematic connections between PhD projects.

When the stress level among PhD candidates is high, they can meet with the deputy head or PhD coordinators (and/or supervisors) to discuss and plan their work and to reduce stress.

Recommendations:

SGS has been quite successful in forging a coherent study programme at the undergraduate and graduate levels. The committee finds that there would be significant benefits from bringing **further coherence** to the PhD level as well, especially if competition for funding increases and the recruitment of candidates decreases. Pluralism and diversity are distinctive marks of SGS but need to be better combined with the establishment of a common core definition of SGS' postgraduate programmes. We recommend that the PhD coordinators organise a series of **seminars** across the three PhD programmes.

Postdocs

Priorities:

Postdocs apply for money to finance their own individual research and that of others, and they are starting to build (new) research communities that will include themselves as PIs, together with other postdocs, and PhD candidates.

Challenges:

Postdocs are expected to be flexible in terms of applying for grants and in accepting positions that imply mobility between universities – and countries. To make a living in academia, they may even have to take on positions that imply research at several universities at the same time. It would be helpful if the management would clarify to PhD candidates who aspire to stay in academia what is expected from them in terms of applying for their own research grants – or applying together with

postdocs – before the PhD position ends. Postdocs who come from outside SGS may need longer lead-in time to settle into a new research department and working environment, they cannot begin their projects on day 1.

Reflections and Recommendations:

This group of researchers works closely together with scholars within their own projects, but they seem to be working rather independently from other staff. In order to both support the postdocs and **integrate** them more in the working environment, we recommend that SGS set up a fair and functioning **mentorship** structure for all postdocs – wherein mentors are rewarded for their time.

The early stages in a postdoc position – when postdocs are settling into SGS as a new working environment – is a critical moment when mentoring would be beneficial. So is the moment when the postdoc position is coming to an end.

We also recommend that postdocs who have not yet become assisting supervisors could become **mentors for PhDs** – at least in relation to some aspects of career planning and networking, such as attending conferences and writing applications for funding. We recommend that postdocs who are aspiring to become supervisors take a course in postgraduate supervision.

Research Councils / Subject areas

Priorities:

At SGS, collegiality, diversity, and interdisciplinary collaboration are priorities and the ambition to **avoid competition** and conflicts between subject groups and between the three main fields of ESS, P&D, and SANT is strong. While some **seek synergies** and more consolidation across disciplinary and interdisciplinary divides to reap the full potential of SGS, others are more **protective of their boundaries** to avoid dilution. While some strive to make GS a **unifying** field, others see it as a collective **umbrella** under which pluralism can thrive. There are structures for talking across the divides of separate fields and subject areas, one of which is the recently introduced workshop for writing and reviewing applications. But several initiatives to get together in seminars and other fora to discuss more systematically the field of GS and ‘the global’ have failed to reach any conceptual consensus.

There is great potential in the multiplicity of interdisciplinary research at SGS. The diversity of researchers is a real asset also in external collaboration with researchers at other centres and departments across the faculty borders of UGOT – and beyond.

Challenges:

At SGS, there are separate interdisciplinary fields and groups with similar but also different takes on how to define the field of GS and ‘the global’, which are both contested and subject to diverse perspectives. SGS is a common ground for research and teaching where groups are intended to **cross boundaries** but there are tensions between fields and no clear structure for discussing a defining ‘SGS-take’

on global studies. The pressure to apply for funding and to engage in outreach activities leave researchers with limited time to discuss shared issues such as what 'the global' entails.

The 'forced marriage' between units under the SGS in the early 2000, created resistance and skepticism against unified perspectives. The attempt to develop a Global Studies seminar failed and so did the effort to make GS into a research subject because the faculty resisted it. Since then, a new generation may see this differently, especially those who have been attracted to SGS for its research on globalisation and global phenomena.

Worldwide, there are excellent centres for GS. Instead of just being one among many, SGS could identify and **develop its own particular set of approaches** to the study of 'the global'. It has already done so, to a degree, in the combination of disciplines and topics represented, with their focus on such things as migration, heritage, gender, indigenous studies, power, resistance and social change. Perhaps it would be helpful to convene a series of conversations among all SGS faculty and students to ask why these particular topics have come together within SGS, and to imagine options to move in various – or more united – directions as well.

To conclude here, SGS has the **potential to become more than it is**. Researchers with diverse competencies could work more systematically together on a distinctive profile to attract students and others while still fostering the specialty of each field. For that, staff must 'get onboard' because those who resist a formalisation of GS worry that their field might be absorbed, diluted, or excluded in such a process, as has happened at other universities. We think such worries are unnecessary: SGS is ready for the kind of comprehensive discussion we have suggested.

SGS has talked about such a joint vision, but the message to the panel was also: 'if you as reviewers put this into the report you must also **provide a strategy for it**'.

Reflections and Recommendations:

We recommend that one way to overcome the resistance against a consolidation or formalisation of Global Studies is to develop a strong and **inclusive forum** for a discussion of 'the global' as a concept in relationship to each of the various disciplines and interdisciplinary fields that constitute SGS. There is no need to formulate an ultimate theory of the global, but researchers could agree to discuss it conceptually and more systematically and to keep that in sight as they focus together on their work. We also recommend that SGS develop a joint **postgraduate course** on this basis (see heading 9 above).

11. FINAL STATEMENT

At a time where peace and development are confronting serious challenges in many places; where climate change and the environment are higher on the agenda than ever before; and where local and national identities have become defining elements in the emerging order, the School of Global Studies at the University of Gothenburg

should be an ideally placed academic location for setting forth the appropriate concepts, theories and approaches for global studies, in the years to come. There is great potential, both externally and internally, in working out the profile, which clearly defines the ‘SGS-approach’ to global studies.

12. AFTERWORD

After completing his portion of the site visit, one member of our review team, anthropologist Richard Handler, returned to SGS to sit in on a presentation from a visiting anthropologist. Staff and students from all three SGS areas were in attendance, and all talked knowledgeably to each other and to the visitor about his paper. From this event, Richard got the impression that staff and students at SGS, whatever their particular disciplinary or interdisciplinary orientation, are participating in a larger discussion. They share or at least comprehend a common set of theoretical and methodological issues. They are already doing the work of building SGS’ core identity, which we have recommended.

We think that by recognising the strength and success they already have, SGS can continue this work in a more self-conscious and strategic way – and this will lead to the greater visibility and international renown it deserves.

SCHOOL OF PUBLIC ADMINISTRATION

616	Introductory Remarks
616	Section A – Background and Research Standing
616	A1. Background
617	A2. Research standing
620	Section B – Leadership
620	B1. Leadership
622	B2. Recruitment
623	B3. Career structure
624	B4. Funding
626	B5. Feedback and evaluation
626	Section C – Complete Academic Environment
626	C1. Collaboration
628	C2. Relevance and impact on society
629	C3. Research-teaching linkages
631	Section D – Academic Culture
631	D1. Academic culture
631	D2. Publication
633	D3. Facilities and research infrastructure
634	D4. Transverse perspectives
635	Section E – Support
635	E1. Internal research support
635	E2. Faculty and University-wide support
635	Section F – Other Matters
635	F1. RED10 evaluation
637	F2. Other matters
637	Concluding Recommendations

INTRODUCTORY REMARKS

Based on the self-evaluation and the additional submitted material the three panel members as a start individually answered the questions in the template. From these the chair, Elisabeth Sundin, made a preliminary report as a basis for discussions among the panel members by email and vocally in a common dialogue.

During the site visit separate, interviews were held with a group of five professors, a group of five PhD students, a group of four lecturers and the management team of four persons. The first session lasted for two hours and the last three approximately 90 minutes each. The visit ended with a feedback session with the Head of Department and the Deputy Head of Department chairing the Council for Research and Doctoral Education. Overall, the site visit gave valuable input to the final report.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The School of Public Administration (SPA) includes 59 persons – half of which are researchers/teachers and one third PhD students. The department is characterised by its traditional responsibility and involvement in teaching on undergraduate levels and further training of civil servants of the public sector. This background is of great importance for the position of SPA which we will come back to throughout the report. On the positive side is the established collaborations with stakeholders and practitioners and on the negative side a disadvantaged position in the university and faculty negotiations on the distribution of funding for research. Other departments have a similar position, which is acknowledged in the panel report for the Faculty of Social Sciences, where it is also emphasised that the imbalance cannot be solved by the departments themselves.

The background figures show a slight increase in professors, research staff and administrative staff. The most senior professor is the Head of Department, who also chairs the Department Council which handles strategic and overall matters. It includes teachers/researchers, administrative personnel, PhD students and undergraduate students. The Deputy Head of Department is responsible for undergraduate and master's education, while the PhD programme and research is handled by the Assistant Head of Department who also chairs the Council for Research and Doctoral Education. This includes three professors representing different research fields and a PhD student. Quality of research is emphasised as the main issue for the Council for Research and Doctoral Education.

The management team consists of the Associate/Deputy/ Head of Department, the Administrative Manager, the Collaboration Manager and the Head of Gender Equality Integration. The self-evaluation also mentions a number of drafting committees and working groups. It is argued that the specified councils are needed

to support the infrastructure for research. The increase in administrative staff indicates a professionalisation of some administrative tasks.

Overall, the management structure seems to be rather heavy. The responsibilities of the different organisational units and members is not quite clear. An organisational chart would have clarified this.

The background material provided both by the University of Gothenburg (UGOT) and SPA regarding funding, staff data and publication is somewhat confusing, e.g. there is no overview of the resources and time for research in relation to teaching, neither on the group nor individual level. This is a weakness, since it is evident that the division of time for research and time for teaching is significant for possibilities to conduct research on high levels. The self-evaluation is not particularly self-critical or reflective. There are no specific analyses of strengths, weaknesses, opportunities and threats.

A2. Research standing

The research standing can only to some extent be assessed through attached materials (such as bibliometric and financial data). The background material produced by UGOT on researchers, projects and funding is not always clarified by some of the comments given by the department. Additional information was obtained through the extensive interviews during the site visit.

In its self-evaluation the department states the freedom of research and researchers as a main principle, and following from that, that trust, not control, is to be used. It is also emphasised that even if reporting is necessary, it should not lead “*to a competitive culture where different researchers and research groups are compared and set against each other*”. This standpoint has wide consequences and concerns all the dimensions of interest in RED19. We acknowledge that freedom of research for the individual researcher is important, together with a supportive and inclusive culture, but there is also need for some coordinated strategy and stronger academic leadership in order to strengthen the department’s research from an international perspective.

The project portfolio is divided into eight loosely coupled and partly overlapping fields, defined mainly by their empirical focus: research into civil servants and professions, welfare research, local government studies, urban studies with a sustainability perspective, public administration scrutiny in the audit society, public administration in the education sector, integration and migration, and accounting and management. Together about 50 research projects, including 16 PhD projects, are listed, giving a rather fragmented and eclectic picture. Limited information is given about how many of these are finished or ongoing or how much resources they have. The main impression is that there are many small, short-term, applied and commissioned research projects. We also find that the level of competitive, international external funding at SPA is rather low and concentrated to some researchers and research themes.

We acknowledge the pluralistic approach but we also think that SPA should consider rearranging its research organisation into fewer, bigger and more sustainable research groups to enhance coordination and create a critical mass, and in turn, to create better opportunities for obtaining competitive (national and international) funding and creating more stable research programmes at the department.

The department claims to be one of the leading environments for research on public administration in Scandinavia. Furthermore, SPA claims to have a unique profile and responsibility both when it comes to research and to education at advanced levels. The self-evaluation emphasised that “*undergraduate and master’s education in public administration is in many respects at the centre*”. This position could be a problem if the aim is to be a leading international research unit in the field of Public Administration. A main challenge if SPA wants to increase its research standing from an international perspective is that the balance between teaching and research has to be changed in favour of research, both regarding allocated resources and research time for individual researchers. There is also a need to complete the profile of externally-funded research projects from an “*explicit focus on collaboration and commissioned research*” which are often short-term, small and applied research projects, towards bigger, more long-term basic research; and to strengthen a publication strategy towards more publication in international, as well as in national, peer-reviewed outlets.

Overall, the self-evaluation indicates that the strength of the department’s research is on the empirical and descriptive side. There is not much about the theoretical contribution of the department, which was commented on during the site visit as following the different perspectives and theories used by different researchers. One empirical strength is the department’s comprehensive empirical database of leading officials in municipalities, which has been developed for over 20 years, and which provides a firm empirical base for other related studies and for cooperation with colleagues both in Sweden and abroad. The relations between politics and administration in Swedish municipalities and regions is a strong research field at SPA. Other fields, like urban studies with a sustainability perspective, are established by dedicated young researchers given the possibility to develop a new area and to establish cooperation outside the department.

The Scandinavian Journal of Public Administration is an outcome of the responsibility for research, as is the responsibility taken for NOOS (Network of Public Organisation and Government) and for being the Swedish node in the Nordic Municipality Research Network (NORKOM). We also see progress within research standing since the RED10 evaluation. SPA seems to actively work on developing research possibilities, environment and quality.

The academic staff consists of eight professors, 18 senior lectures and three lectures. All 29 academics have a PhD, of which 23 obtained their degrees at UGOT (10 from SPA), four from another Swedish university and two from abroad. A programme for longer-term visits by established international researchers has been

established and is ongoing. The self-evaluation expressed satisfaction with very competent new staff members but also some worries over few applicants. One way to increase the number of researchers, potentially also in the long-term perspective, could be with PhD students. There were 12 PhD admissions in the period 2013-2017 and four PhD degrees in this period (of which two were in English). There are no data on drop-outs or completion ratios, however, the interviews revealed that most of the PhD students finished on time, but that there were also some drop outs. Overall, the PhD students were very satisfied with the PhD programme. A strategy for the future might be to recruit more PhD students directly into ongoing research projects.

Bibliometric data shows that the department scores rather high on quantity. The average output of articles seems to be about on the same level during the period that we have material for. The Norwegian bibliometric indicator gives lower publication numbers than the summary of outputs shows. The research and research profiles also score high on relevance. There are many peer-reviewed articles in English journals, but few of them are in leading international journals or in general PA journals. Some of the articles in Swedish are published in nationally peer-reviewed journals and some books are widely used by students and professionals. There are also many books but few at good international publishing houses. There are many book chapters, but quite a few of them are in non-peer reviewed Swedish volumes. A further analysis of the publications reveals great differences between individual researchers. International peer-reviewed outputs are concentrated on rather few of the academic staff.

The SPA self-evaluation report reminds that *“the department’s traditional emphasis on collaboration with the surrounding society is that a large proportion of research is published in Swedish in a form that is accessible for consumers in the Swedish administration”*. Looking at the production from a cooperation/collaboration with stakeholders/practitioners’ point of view, it seems obvious that there is a need for presenting research in a format suitable for societal use. However, to get an academic reputation it is also necessary to publish in international highly-ranked journals or books from highly-ranked publishers. The conflicting demands have to be handled by the department but should also be discussed on other hierarchical levels as acknowledged in the panel report from the faculty level.

Overall the self-evaluation is rather sketchy regarding future strategies and plans. The main impression is continuity, partly following an expected expansion of mission for teaching, but renewal is also mentioned. Regarding the aspiration for new theoretically-driven research and where the department aspires to be within 5–10 years, the self-evaluation is rather brief. Current aspirations for new research initiatives are not well developed, which makes it difficult to assess how relevant and realistic they are. Expanding research on “digital administration” is mentioned but not much developed. The department does not have a research programme and no common academic profile or approach. Maybe this is a consequence of the overall “freedom” strategy.

One challenge will be the retirement of four out of eight professors in a few years. Whether and how, research ambitions are affected is unclear.

The area of knowledge is “traditional areas” which means continuity. The department wants to strengthen the relationship with authorities in Western Sweden, where it is already strong. Somewhat surprisingly, there is no clear motivation in the self-evaluation to move beyond the rather narrow focus on public administration at the local and regional level in Sweden. The self-evaluation admits that SPA has been criticised for its lack of interest in the national level and we acknowledge the ambition to expand the collaborations with authorities at the national level. We think, however, that these ambitions should go beyond national authorities with offices in Gothenburg as indicated in the self-evaluation. If the department should live up to its ambitions of being a leading environment for research on PA in Scandinavia it has to expand its scope towards national and supranational administrative bodies focusing more strongly on multi-level-governance issues and comparative public administration. There are some indications among the academic staff of a movement in that direction which should be encouraged, as our interviews also revealed. Continued collaboration with practitioners is also emphasised, especially cooperation with strategic stakeholders. This is a strength of SPA. It gives access to good databases, which is an important part of the collaboration, investments in knowledge and relations. This also raises the issue of the balance between relevance and scientific quality. A main challenge, as we see it, is to transform knowledge from commissioned and applied research into publications in international peer-reviewed outlets.

The strategy of promoting highly-qualified members of staff to professors has been successful and should continue. The same goes for the docent programme. The success of the docent programme has also strengthened research quality among academic staff. Programmes for internationalisation have been introduced and should be developed. Efforts to secure enough research time, for example through sabbaticals or other arrangements to give free periods from teaching, should furthermore be encouraged.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

The department seems to have a rather strong bottom-up, supportive and inclusive academic culture based on trust. According to the self-evaluation SPA “*will specifically want to avoid the reporting of research achievements leading to a competitive culture*”. The publication strategy is delegated to the individual researcher “*within their unrestricted research*”. There are many strengths of such a culture, but it might also constrain the room for a stronger academic leadership, a coordinated research programme, research strategies, and an explicit publication

strategy which we think is necessary to strengthen the department as an international research community within PA.

Strengths

- There is an Assistant Head of Department responsible for research and the PhD programme.
- There is a Council of Research and Doctoral Education.
- Administrative support for research has increased
- Involvement of junior staff in important missions
- A positive view on collaboration, especially with local stakeholders.
- Research seminars.
- A culture of trust.

Weaknesses

- The responsibility of the Assistant Head of Department and the Council for Research and Doctoral Education is quite unclear.
- The self-evaluation tells rather little about academic leadership – mostly about administrative staff and related information – nothing about a strategic research programme and how projects are supported.
- (Too) many additional administrative tasks assigned to academic staff.
- Limited initiatives to support project applications.
- Many small, fragmented and loosely coupled project groups.
- No research programme, weak on strategy, may be a bit too weak on structures to support strategic leadership.
- Limited collaboration with the international research community.

Recommendations

- A more proactive leadership including academic leadership in many dimensions like collaborations and project applications. The Assistant Head of Department (for research) could have a stronger coordinating role for research programmes/groups.
- Strengthen administrative support for ongoing research projects and research applications.
- Strengthen research collaboration with both national and international research communities.
- Develop the strategic guest programme for researchers.
- Develop a strategic guest programme for practitioners.
- Reactivate relations with the existing research infrastructure at UGOT (such as the SOM Institute).

B1.2 Faculty/University level leadership

One main concern regarding the relation to the faculty and the university leadership is the allocation of financial resources. SPA argues, both in its self-evaluation report and during interviews, that the rules and regulations for allocating resources between the departments are to the disadvantage of SPA, mainly due to historical reasons. As mentioned in the introduction, this position also concerns

other departments with a similar background to SPA. The documentation of financial resources is, however, rather ambiguous in the background material and it is difficult for the panel to get a good picture of the situation.

Strengths

- Good collaboration between the Council of Research and Doctoral Education and the Faculty of Social Sciences.

Weaknesses

- The university/faculty level resource distribution is constructed to the disadvantage of the department due to historical reasons.

Recommendations

- Clarify the system for allocating financial resources and the distribution logic, and use both for strategic actions and discussions.
- Initiate a discussion on the division between departments and faculty/university when it comes to funding, support etc.

B2. Recruitment

It is not quite clear if the department has an explicit recruitment policy. In practice it seems to be more focused on education and teaching than on research. The recruitment practice seems to have strong internal and Swedish bias and is not very directed towards the international research community. It is multidisciplinary mainly towards Political Science and Business Administration. It is a concern within SPA regarding “*staff members who are not driven by research career ambitions*”.

Strengths

- Use of PhD recruitment as a long-term strategy for filling both research and teaching missions. This however should not be the only way.
- Use of teaching missions to also strengthen research and collaboration.
- Increased number of researchers/teachers who have been able to attract externally-funded research projects and find research partners outside SPA.

Weaknesses

- 50% of the professors close to retirement.
- High teaching load in relation to research at the department.
- High turnover among administrative staff.
- Teaching in Swedish is very important at bachelor’s level – this means that attracting competitive applicants from the international market is problematic
- Internationalisation is not ensured or focused
- Not quite clear how recruitment enhances high-quality research and renewal
- The number of applicants is low.
- High proportion of internal recruitment.

Recommendations

SPA has been active and concrete in its ambition to secure long-term competence –

but there is still room for improvement. We recommend that successful initiatives be developed to:

- An explicit and active recruitment policy.
- A clearer recruitment policy for research (for example postdocs) and a discussion about teaching load versus research time.

Demands on knowledge of the Swedish language for teaching, and for external collaboration, is a restriction when it comes to potential international recruitments. However, there is room for innovative thinking when it comes to constructions of obligations and cooperation (and even definition of “international” to also include other Nordic countries), giving the possibilities of having:

- Stronger international recruitment.
- Developing the visiting scholar programme
- Increasing the number of applicants.
- Strengthening recruitment to the doctoral programme.
- Considering international students, teaching in English.
- More external and international recruitment especially for research positions.

SPA has external partnerships which could be actively used in the recruitment strategy, both as a link to potential co-workers and PhD-students, and as guest researchers and teachers. It could be expected to be successful – but demanding when it comes to administration which could be a real problem as administration has expanded but suffers from a high turnover rate.

- Use the turnover of administrative staff to develop the administrative agenda.

B3. Career structure

SPA has developed different methods for recruiting and retaining academic staff. One is to give early-career scholars opportunities to get permanent positions as lecturers. Another is to strengthen research competence by recruiting more professors and promoting academic staff to docents and professors.

There might be an aging problem among senior academic staff.

Strengths

- Acknowledgement of need for a career structure.
- The docent programme, and promoting academic staff to docents.
- Using the promotion of qualified researchers to professors as a strategy to keep young, promising researchers.
- Support of good teachers.
- Support for research and personal skill development for researchers with PhDs.
- Funding of participation in two international conferences a year.

Weaknesses

- Limited exchange of researchers.
- Promoted professors have a limited amount of time reserved for research. To get more than 15% time for research they have to attract external research grants.
- High teaching load for lecturers, 85% of full time, for those who cannot attract external funding.
- Few suggestions for improvements.
- No postdocs.
- No sabbaticals.
- Few ongoing and planned initiatives.

Recommendations

- Establish a strong exchange programme with academic institutions.
- Develop the strategic guest programme for researchers.
- Establish a research programme with external partners.
- Stimulate more mobility among academic staff.
- Introduce sabbatical arrangements for all academic staff, especially for senior staff with research leading capacities.
- Stimulate more participation in international conferences and seminars.
- Initiate a discussion on teaching load vs research time.
- Create (departmental) internal postdoc positions (and also within projects) for early-career researchers.

B4. Funding

The background material gives a rather unclear picture of the financial situation and funding of SPA.

A general impression is that the financial data show a high focus on education. Research expenditure is about 50% of the educational expenditure. Block grants totally dominate as the resource for academic staff. The share of research funding from external sources has decreased over the five years registered according to the background material. Since 2015, it appears the funding for research has decreased and the funding for education/teaching has increased. Less than 20% is funded by the Swedish Research Council (VR), the Swedish Foundation for Humanities and Social Sciences (RJ) and the Swedish Research Council for Health, Working Life and Welfare (Forte). European competitive funding is marginal.

This is one of the points where the self-evaluation challenges the figures and impression given by the background material from UGOT. It is argued that the data set exclusively registers funding to the department where the main applicant is active. The researchers of SPA are active in projects administrated by other researchers and departments, while some also register projects where they are responsible to other administrative units like the GRI. All in all, SPA states that money from research funds working with quality and excellence criteria has slowly increased. Both the practice and the consequences of the information given could, and maybe should, be discussed with the faculty or the university.

The biggest underestimation of external grants to SPA seems to be due to neglecting the resources from the KOLV-collaboration in the background material. The KOLV cooperation (Region Västra Götaland and 12 municipalities, including Gothenburg) aims at strengthening research and advanced education in public administration in West Sweden. KOLV accounts for 42% of the external funding, financing e.g. one professor. A new contract period of over six years has been signed.

In general, there is a need for a more specific account of how resources are allocated between research and education, both at the department level and among the individual researchers. We question whether the funding model connected to the faculty- and university-level distribution system enhances high-quality research. Researchers seem to be too dependent on external funding for research and especially for short-term, small, commissioned research. According to the self-evaluation the department does not have an explicit funding strategy and it seems to be left to individual researchers to apply for research funding.

Strengths

- Increased external funding and cooperation.
- Increased number of projects and commissions
- The staff's use of more of their work load on research.
- The local and regional KOLV collaboration strengthens the research environment.
- PhD students are funded by the department and to some degree co-funded by research projects.

Weaknesses

- No explicit research funding strategy. Up to individual researchers to apply for funds.
- Too few successful research applications.
- Few competitive internationally-funded projects and collaboration.
- Few suggestions for improving funding and ongoing and planned initiatives.
- Many small and short-term projects.
- Low capacity to meet high demand of commissioned research on short notice.
- Gap between awareness and planned actions.

Recommendations

- A proactive and explicit funding strategy.
- Stronger research coordination/leadership.
- Promote high-quality research.
- Strengthen the internationalisation of research.
- More collaboration on external competitive funding with other national and international universities and research institutes.
- KOLV gives a substantial economic compensation to SPA, and excellent access to empirical data, but also some restrictions and limitations for the research scope. Use the KOLV collaboration for strategic initiatives too, discuss and elaborate the KOLV collaboration.

- Use the short-term commissioned and applied projects to develop long-term fundamental research, as well as international cooperative and comparative projects

B5. Feedback and evaluation

According to the self-evaluation “*the department does not normally perform its own evaluation of the staff’s research effort*”, but it is monitored by the Head of Department during the annual appraisal talks with each staff member.

Strengths

- Annual performance appraisals with the researchers by the Head of Department.
- Monitoring of research output by the Assistant Head of Department.
- Presentation of research in monthly staff meetings, book releases.
- The ambition to create a supportive culture.

Weaknesses

- No own evaluation of staff’s research effort.
- No systematic follow-up or assessment of the research environment and research outcome.
- Few suggestions for improvements or ongoing and planned initiatives.

Recommendations

- Enhance a more systematic evaluation of the staff’s research effort.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

SPA has a major focus on collaborations, not least outside academia. The collaboration with stakeholders and practitioners is comprehensive.

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Some of the researchers at SPA have established research collaborations on an individual basis with other departments at UGOT. Members of staff were involved in the establishing team of the SOM Institute, but the involvement is now at a low level. Overall, there seems to be potential for closer collaboration with departments in the field of social sciences in Gothenburg as well as with other universities in Sweden.

There is some formalised collaboration with universities in other Nordic countries and also in Sweden. The initiative and the responsibility taken for NOOS is an important contribution, as is the position in NORKOM. Comparative studies are done with colleagues in mainly other Scandinavian countries.

International collaboration is still less frequent but increasing with the guest researcher programme and some international recruitments. Some projects are done on the international arena. Staff with research interests and obligations regularly take part in the dominating international conferences.

Strengths

- Individual researchers have collaboration with other researchers at UGOT.
- The guest researcher arrangements.
- A key position in the long-term NOOS network and NORKOM cooperation.
- Some collaboration with Nordic and European universities and to some extent universities beyond Europe.
- Increased awareness of the importance of international cooperation.
- Several scholars have positions in the scientific community.
- Organised international research conferences in Gothenburg.
- Participation in a number of networks and research organisations.

Weaknesses

- Limited institutionalised collaboration and cooperation with strategic departments at UGOT, with SOM and with programmes within research.
- Low level of international staff mobility, low level of research stays abroad.

Recommendations

- Strengthen, support and promote formal collaborations including clusters, research centres, partnerships.
- Strengthen, support and promote informal collaborations with academic actors who perform joint research activities, for example through joint projects, networks or associations.
- Strengthen mobility and stimulate research stays abroad.
- A better administrative support structure to stimulate scientific collaboration across countries and universities.
- Build systematic partnerships.
- Strengthening the collaborations across departments at GU.
- More proactive suggestions for improvement and planned initiatives to strengthen scientific collaboration.
- Increase documentation of activities and initiatives.

C1.2 Collaboration with external stakeholders

The collaboration with external stakeholders and practitioners is extensive. Most of the collaborating external institutions are public agencies, and local and regional authorities. The established and formalised collaboration with the KOLV municipalities is the most important. The researchers are often asked to contribute to both regional and national authorities. International collaboration beyond the Nordic countries is established by individual researchers, some of whom are externally recruited.

Strengths

- The KOLV collaboration.
- Cooperation with a number of public administrative organisations.
- Active administrative support for collaboration with stakeholders.
- Many commissioned research projects.
- Scoring high on relevance and stakeholder involvements.
- Increase in alumni activities.

Weaknesses

- An empirically narrow focus on the local political/administrative level, especially in Western Götaland and Gothenburg region. This focus can be turned into a strength, as indicated in the recommendations.
- No explicit plan for how the collaboration could be used in research and education.
- UGOT funding schemes do not support the type of collaboration dominating the department.

Recommendations

- Move beyond the rather narrow focus on local government authorities in the Gothenburg region to develop more comparative studies across municipalities, regions, countries, policy areas and administrative levels.
- Turn the regional cooperation into academic competitive research.
- More multi-level governance studies (through stakeholders on different societal levels).
- Introduce adjunct or joint appointments.
- Introduce a practitioner PhD track.
- Prevail upon the financial control system within government and universities to reward collaborations.

C2. Relevance and impact on society

SPA is scoring high in impact and relevance for society. It has close collaboration with practitioners and stakeholders.

C2.1 Management and support

Strengths

- Scoring high on relevance and contact with practitioners.
- Strong and established tradition of collaboration.
- A collaboration manager facilitates relationships with external parties.
- A well-established practice of reporting back to practice through PA Report Series, an annual public seminar “*Förvaltningshögskolans dag*” and an award for utilisation of research in PA to an external researcher/practitioner.
- A big alumni group.

Weaknesses

- Little use of social media such as Facebook, Twitter, blogs.
- No explicit strategy for how to use alumni.

Recommendations

- Maintain and develop established strategies and tools.
- More use of digitalisation, social media.
- More use of alumni.

C2.2 Research relevance and impact on society

A School of Public Administration with a given responsibility for educating civil servants and to produce adequate research is in a privileged position when it comes to prove research relevance and impact on society. The position is, however, not without problems as is stated under weaknesses. The difficulties in finding indicators is discussed by SPA.

Many of the external stakeholders, “society”, request research-based knowledge distributed in Swedish, which contradicts the demands for publications and information in English. SPA must create a strategy that enables both international scientific publishing (in English) as well as national channels for societal and end-user publishing (in Swedish).

Strengths

- SPA’s impact on society seems to be at a high level.
- An explicit focus on collaboration and commissioned research have enhanced the relevance for society.
- Informed the public debate with a critical perspective on audit society etc.
- Faculty members used as experts on government commissions and for different government authorities, as well as on regional and local levels.

Weaknesses

- Risk for too-close links between the department and the study objects.
- No specific indicators for impact on society.

Recommendations

- Strengthening the indicators for impact on society, regarding specific and concrete outputs and use of research outcome by societal stakeholders.
- Work with an open access strategy and support.
- Initiate a discussion on the use of Swedish language both in research and external relations. This must not overrun high-quality journal publications as a research excellence strategy – both are needed and the latter is highly important for individual researchers’ careers in a competitive labour market.

C3. Research-teaching linkages

One strength of SPA is that the teaching is research-based. Most of the teachers also conduct research in the fields they are teaching.

C3.1 Undergraduate and master's education

Strengths

- Almost all teachers are also researchers.
- Praxis/society-relevant teaching is high on the agenda.
- Strong links between teaching and research.
- The researchers have published several text-books.
- Commissioned teaching programmes directed at employees in public administration.
- Outstanding master's theses are published in the report series.

Weaknesses

- An imbalance between teaching and research in favour of teaching for some lecturers.
- Lack of documentation of time allocated to research and teaching.

Recommendations

- Integrate master's students/master's theses into research groups and research projects.
- Stabilise and strengthen the long-term involvement of students in ongoing research activities.
- Involve and recruit practitioners as teachers and discussants.

C3.2 Doctoral education

The PhD programme is well organised and PhD students seems to be integrated into the staff and are overall very satisfied with the programme.

Strengths

- Cooperation within UGOT.
- The PhD students are well integrated.
- Most finish on time.
- The Network of Public Organisation and Governance (NOOS), including an annual PhD student conference.
- Awareness of problems associated with a low number of PhD students.
- Good opportunities for participating in international conferences.
- Internal doctoral seminars.
- The combination of a general curriculum and individual parts in PhD education.
- A quality assessment system including a starting seminar, a mid-seminar and an ending seminar.
- The three-supervisor practice.

Weaknesses

- An uneven, and low, production of dissertations over time mainly due to low recruitment.
- Problems with long-term funding.
- Some drop outs.

Recommendations

- Recruit several PhD students at the same time to get cohorts and a critical mass.
- More externally-funded PhD students (if possible, from funding institutions).
- Strengthen the collaborative PhD path.
- Establish a joint doctoral school across departments and universities.
- Stimulate research stays abroad.
- Document completion rates, drops outs, supervisor capacity, curriculum.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

The self-evaluation emphasises the importance of academic freedom, a supportive culture and an ambition to avoid a competitive culture that, it is stated, could turn into destructive practices. That is the background to the strengths and weaknesses below, as well as to the recommendations.

Strengths

- Ambitions to create a supportive and inclusive culture.
- Good work environment.
- Systematic research seminars.
- A compulsory staff meeting.
- Conferences at least twice a year.
- Celebrations of book launches, research grants, promotions.

Weaknesses

- No elaborated strategy for ethics and misconduct at the department.
- Coordination deficit.
- Weak academic coordination.
- Weak on research strategies.

Recommendations

- More procedures and rules for research ethics and ethics scrutiny.
- Expand internal and external peer reviews.
- Consider robust and permanent research groups.
- Encourage a more ambitious and stronger performance culture.
- Enhance research leadership.

D2. Publication

The department does not seem to have an explicit publication strategy. How to publish is mainly delegated to individual researchers, but we see a trend towards more international publications in peer reviewed outlets.

D2.1 Publication strategy

Strengths

- Increasing number of publications in English (in international journals).
- Publications in Swedish that reach adequate stakeholders in Sweden.
- Awareness of the necessity to adapt to new publication criteria.
- Scandinavian Journal of Public Administration.
- Open access 'Report Series'.
- Financial support for linguistic review.

Weaknesses

- No overall publication strategy for the department.
- Lack of good data for bibliometric parameters.
- Too little use of collaborative and commissioned research and reports to produce international research publications.
- Weak on publishing in top international peer-reviewed journals and international PA journals.

Recommendations

- Develop a more active overall departmental publication strategy to move the publication pattern towards more international peer-reviewed journals and good international as well as national publishers.
- Keep the publications in Swedish, also open access, to reach qualified stakeholders.
- Initiate a discussion with the faculty and university, in cooperation with other departments, on how to also support national publications channels that easily fall outside funding schemes.
- Do not leave the publication strategy to individual researchers alone.
- Sabbaticals for more time to write articles/books.
- Develop the weaknesses to strengths.

D2.2 Analysis of bibliometric data

Overall the bibliometric data have several shortcomings and lack a systematic presentation. SPA is in the process of changing its ambition to adapt to the new criteria – or rather to also include the new criteria with the old ones. This means new demands, not just on the publications but also on the bibliometric data system to move towards the Norwegian level and points at department, publications and individual levels. As it is now, the overview presented as a background from UGOT is not adequate for the publications made by SPA.

Strengths

- The overall publication output over the last six years has been relatively stable. Scoring rather high on quantity.
- The proportion of peer-reviewed publications has increased.

Weaknesses

- The overall productivity (number of publications per researcher) has decreased somewhat.
- A lot of shortcomings in the bibliometric database.
- Unclear relations between lists, figures and statements in the self-evaluation from SPA.

Recommendations

- Initiate and take part in a discussion on the university level on how bibliometric data should be produced and used.
- Adapt presentations of publications to established systems.

D3. Facilities and research infrastructure

The KOLV agreement is on the institutional level, as is the position in NORKOM and NOOS. That is why we consider them as part of an infrastructure as stated in the self-evaluation from SPA.

Researchers at SPA have been engaged in different surveys and construction of databases, some of them repeated after some years. This is not emphasised in the presentation and probably not seen as an important part of SPA research, which gives rise to our recommendations.

Strengths

- Responsibility for a longitudinal database on civil servants and politicians on the municipality level in an international comparison.
- Responsible for other repeated questionnaires to councillors in municipalities and county councils (KOLFU) and the 2014 municipal theme of the Swedish National Parliamentary Survey (SND).
- The KOLV network, NORKOM and NOOS.
- Used to be central within the SOM Institute, annual ongoing citizens surveys.

Weaknesses

- Low use of common UGOT infrastructure, decreased and limited exchange with SOM.
- Few relations to the big databases at the Quality of Government institute in the Department of Political Science.

Recommendations

- Take initiative to build databases and infrastructure, especially on local government data.
- Strengthen use of new methods, such as experiments and panel data.
- Keep a balance in the staff for quantitative /qualitative methods.
- Revitalise the cooperation with SOM and open new systematic cooperation within UGOT regarding research infrastructure (for example data sources).
- Strengthen administrative support for research and research applications.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

SPA is fully aware of, and actively supports, equal opportunities and gender equality in all research activities (as well as all other activities) at the department.

Strengths

- Pilot department for gender equality integration.
- A specific person with responsibility for this work.
- High awareness of the relevance of the perspective.

Weaknesses

- High proportion of men among supervisors and professors.

Recommendations

- More specific means and measures for women, such as sabbaticals.

D4.2 Internationalisation

The department has moved towards stronger internalisation, but there is room for further improvements regarding participation in international networks, conferences, seminars and research collaboration.

Strengths

- Scandinavian Journal of Public Administration.
- Funding international conferences and network meetings.
- A visitor researcher programme.
- Researchers from the department have been visiting researchers internationally.
- Some participation in international research collaboration.
- More publication in English

Weaknesses

- Overall, the internationalisation of the department still needs to be improved.
- Few international staff members.

Recommendations

- Increased participation in international research programmes.
- Strengthen the visitor programme.
- Strengthen the mobility programme.
- More participation in international conferences and seminars.
- More publications in English.
- Strengthen administrative support for applying for international funding.
- Develop institutionalised partnerships.
- Use established tradition of collaborating with domestic actors outside academia, and of applied and commissioned research, to attract international scholars. This could also be a base for international comparisons.

SECTION E – SUPPORT

E1. Internal research support

Administrative resources seem to be concentrated on teaching support, dissemination and communication. There is a need for stronger support for research and research applications.

Strengths

- Research communications, a specific communications officer.

Weaknesses

- Too weak feedback for researchers, for reporting and accounting.
- Limited support for national competitive research applications.
- Potential problems with department co-funding for larger projects.

Recommendations

- Strengthen the competence and support for applying for EU funding.
- Strengthen the support for project reporting to funders.
- Allocate more internal support resources to research.
- Allocate co-funding for international projects both on department and faculty levels.

E2. Faculty and University-wide support

In general, there is need for stronger university-wide support for applying for EU funding and other competitive research funding.

Strengths

- Faculty level support for competitive international research applications.
- Co-funding of EU projects.

Weaknesses

- Inadequate distribution of administrative tasks between organisational levels.

Recommendations

- Reduce overhead costs to joint administration, such as IT and library.
- Initiate a discussion on the key-criteria for judgements and support.
- More support for writing applications for competitive Research Council funding.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Reflections on how the department has worked with the recommendations resulting from the RED10 evaluation:

- Regarding **Quality**, RED10 concluded that it was *Insufficient*, with few international peer-reviewed publications. We see improvement here, but there is a bias among academic staff how international channels are used. However, SPA is working with this problem through research seminars and the docent programme. On the positive side is also the upgrading of the SJPA into a peer-reviewed international journal. A challenge is to transform commissioned empirical research into international output, which is also noted by the SPA leadership.
- Taking the context of '**Complete Academic Environment**' into account, we do also note that SPA reaches out to Swedish society with quality research output in the national language.
- Regarding **Productivity**, RED10 concluded this as *Good*: A fair number of local and national publications. This is still the case, but the overall number of publications per researcher has not improved. However, the production of peer-reviewed international publications has increased.
- Regarding **Uniqueness**, RED10 concluded this as *Very Good*: An important training institution in Sweden. This is still the case.
- Regarding **Relevance**, RED 10 concluded this as *Excellent*: Active contacts with national bodies, local and regional communities, also activation of alumni. This is still the case.
- Regarding **Organisational Capacity**, RED10 concluded this as *Insufficient*: (limited resources, too small PhD programme). We see improvement here. SPA has made changes to improve competence and qualifications through targeted programmes like the docent programme and the PhD programme, which has been strengthened.
- Regarding **Collaboration and Networking**, RED10 concluded this as *Good*: (active national networking, poor international collaboration). This is, more or less, still the case. National networking is very strong and international collaboration is improving, but activity and ambition levels vary among the academic staff. A good institutionalised example is the cooperation with Kingston/UK. Another positive development is the active support for conference participation. However, there is still a rather limited number of European-level externally-funded competitive projects. National (NOOS) and Nordic (NOR-KOM) networks are important.
- Regarding **Future Plans**, RED10 concluded this as *Insufficient*: Even in the RED19 evaluation the plans and strategies for the future are not explicitly elaborated partly due to a heavy reliance on teaching obligations, partly with reference to "freedom of research". However, the strategies used to establish good "career structures" aim to secure competent academic staff in the future.
- The department has responded to the university-level **general RED10 recommendations**, and achieved higher levels of general interdisciplinary cooperation and early-career scientist support. However, it still has many insufficiently co-ordinated research groups, and limited international and national competitive research funding and cooperation.
- The department is on the right track from teaching to research, but it is still important to strengthen research at SPA to create a critical mass, decrease dependence on single individuals and gain sustainability over time.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

If the department wants to move in the direction of high-quality research and research environments it should:

- Be strengthened as a research department. The balance between research and teaching should be moved in favour of research, introduce for example postdoc positions and secure enough research time for teachers and/or sabbaticals
- Publish more in good, international peer-reviewed journals.
- Keep the practice of publishing in Swedish, both for collaborations and teaching.
- Strengthen internationalisation and international collaboration.
- Strengthen collaboration with strategically important departments at UGOT.
- Develop stronger scientific leadership and coordination through research strategy and research programmes, less but larger research groups, to reach critical mass.
- Aim at larger, long-term international competitive research projects.
- Expand the scope of research topics – within SPA and through interdisciplinary cooperation.
- Increase multi-level governance research, and comparative research across countries, administrative levels and policy areas.
- Expand the empirical scope, nationally and internationally.
- Use the KOLV cooperation and strong national position among stakeholders also for the benefit of comparative international research with similar cooperation networks in other countries.
- Strengthen the research infrastructure and expand the use of different research methods. More surveys, experiments and panel studies as well as time series, in cooperation with (other) strong research environments at UGOT and partner universities.
- Improve the balance between empirical and theoretical approaches to research.
- Supplement an informal culture and supportive approach with a more competitive atmosphere aiming at strengthening academic and international ambitions.
- Try to make the general funding distribution more favourable for SPA, the historical distribution should not make the development of research opportunities worse.

Åbo, Bergen and Linköping 28.4.2019

Marko Joas
Per Laegreid
Elisabeth Sundin

PART II PANEL REPORTS

IT FACULTY

IT FACULTY

642	Introductory Remarks
642	Section A – Background and Research Standing
642	A1. Background
642	A2. Research standing
643	Section B – Leadership
643	B1. Leadership
644	B2. Recruitment
644	B3. Career structure
644	B4. Funding
645	B5. Feedback and evaluation
645	Section C – Complete Academic Environment
645	C1. Collaboration
646	C2. Relevance and impact on society
646	C3. Research-teaching linkages
647	Section D – Academic Culture
647	D1. Academic culture
647	D2. Publication strategy
648	D3. Facilities and research infrastructure
648	D4. Transverse perspectives
648	Section E – Support
648	E1. Internal research support
649	E2. University-wide support
649	Section F – Other Matters
649	F1. RED10 evaluation
649	F2. Other matters
649	Concluding Recommendations

INTRODUCTORY REMARKS

Our approach has been informal and flexible due to the small size of the Faculty and therefore the relative ease of synthesis from the two closely related departmental panels.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The IT Faculty comprises two departments: Computer Science & Engineering (CSE) and Applied IT (AIT). In the scheme of university faculties, they are relatively small. This facilitates flexibility but also creates the potential for vulnerability, since the ability to buffer against unexpected external events is lessened.

The two departments are closely related and this presents positive research opportunities since the generally technical perspective of CSE can be complemented by the socio-technical perspective of AIT.

We note that there has been a recent change in the IT Faculty management team (July 2018), with a new Dean, Pro-Dean and Vice-Dean. In addition, there is a new (April 2019) acting Head of Department for one of the two constituent departments.

An area of considerable complexity is the funding regime, which is exacerbated by CSE being split across the University of Gothenburg (UGOT) and Chalmers University of Technology. There seem to be at least two potential harms: (i) it hampers strategic planning and (ii) it might limit externally-funded research programmes given the typical requirement of support in the form of overhead costs. The Faculty is aware of this potential threat and is undertaking more detailed analysis.

A2. Research standing

Clearly both departments are producing research that is internationally competitive. There is great diversity, good engagement with industry and at its best, world-leading work. Unsurprisingly there is some variability. To date CSE is probably more visible and, from an external perspective, is perceived as stronger than AIT, although there are strengths across the Faculty.

Although the two departments draw from different research traditions, there is undoubtedly potential for some useful synergy, for instance augmenting technical AI research with societal perspectives.

However, some of the specifics of the Faculty's research aspirations are a little unclear. There is the overall goal of growth, but we are uncertain (i) how much growth and over what timescale this is envisaged and (ii) the extent to which it will be selective or focused or across the board.

Secondly, there is the goal to become comparable with the “world’s leading iSchools”. We’re not sure how much traction this concept has amongst the CS community. The current list of iSchools is very much dominated by Information Science departments. It might be helpful to try to rephrase this aspiration in terms that make sense across the entire Faculty.

Thirdly, various research topics are identified for particular emphasis.

1. The development of a sustainable digital society.
2. To be a well-known and respected authority in IT research.
3. Artificial Intelligence.

We agree that topics need to be reasonably broad and inclusive, however, IT research seems somewhat generic. AI is self-evident. We would find it of interest to further consider the rationale behind sustainability, particularly as a broad area to be supported.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Faculty leadership

Strengths

- The leadership style is generally light touch, allowing departments space to undertake research and to make local decisions as far as is reasonable. Decision-making is typically consensual and open. This has clear benefits for promoting trust, collegiality and a strong sense of community.
- The team has only recently been established and is clearly open to new ideas and approaches.
- The team strongly espouses a consensual approach, which we believe sits well with the strong sense of community and collegiality that we have observed at UGOT.

Weaknesses

- Not necessarily a weakness, but a possible threat, is the complex structure arising from CSE being split between UGOT and Chalmers.

Recommendations

- A balance needs to be achieved between allowing research to emerge bottom-up (after all, researchers have academic freedom) and providing top-down direction. Creating and fostering an environment that facilitates top-quality research is key.
- Develop a reward structure that provides ‘nudges’ or some direction. For this to be effective this needs to work over the medium- to long-term since little actual research is conducted within annual cycles.

B1.2 University level leadership

Strengths

- The Faculty is represented, and therefore has a voice, at senior levels of decision-making.

Weaknesses

- Uniform approaches, funding models etc. across the University that may not suit the specifics of the IT Faculty's circumstances e.g., the historical basis of the faculty funding model.

Recommendations

- Lobby the University to revise the resource allocation model to enable greater responsiveness to rapidly changing circumstances and opportunities associated with IT.

B2. Recruitment

The informal policy on the number of promoted vs new researchers tends to favour internal promotion. On the one hand, this ensures continuity and enables the Faculty to “grow home talent”, but on the other hand it could also mean that completely new research areas are not established.

Strengths

- Growing emphasis on recruiting beyond Gothenburg.
- Wide range of research groups and activity.

Weaknesses

- Slow process.
- Could be more targeted or strategic.

Recommendations

- Need to speed up the recruitment process (see Recommendation 6).
- When asking external evaluators, ensure that they have the time to carry out the assessment within a short period of time, say 2–3 months.

B3. Career structure

Strengths

- The internal promotion scheme seems to be functioning well. It is widely perceived as transparent and fair.

B4. Funding

Strengths

- A lot of funded research activity from a range of funders, which should provide resilience to local changes in funding regimes.

- Faculty expertise in obtaining research grants.
- Good relationships with industry e.g., the Software Centre, which helps matched funding and similar arrangements.

Weaknesses

- Obtaining grants that don't provide full coverage for overheads leads to significant demands on department/faculty resources.

Recommendations

- Co-financing is a problem, not only for the IT Faculty, and needs to be properly addressed by the university, or the faculty (see Recommendation 1).

B5. Feedback and evaluation

This seems to primarily take place at the division level within departments.

Recommendations

- The Faculty should continue to publicly recognise individual researchers' achievements, both to recognise the individual researcher, or researchers, but also to motivate other researchers at the faculty and make them aware of what is going on (including between departments).

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally; and C1.2 Collaboration with external stakeholders

Strengths

- This is a clear strength of both departments with many ongoing collaborative arrangements between divisions, with other departments e.g. Mathematics, Sahlgrenska Academy, etc, industry, other Swedish universities, and internationally.
- Various divisions in the faculty have growing international visibility e.g., CSE Software Engineering hosting the prestigious ICSE conference in 2018 and AIT's presence in the Swedish Center for Digital Innovation.

Weaknesses

- Surprisingly we were unable to discover examples of collaboration between AIT and CSE. We feel this is a missed opportunity and could greatly strengthen the cohesion of the Faculty.

Recommendations

- Try to foster opportunities for collaboration between the departments within the IT Faculty (see Recommendation 4).

- Ensure that senior researchers' communication networks are transferred to junior researchers (see Recommendation 8).

C2. Relevance and impact on society

Recommendations

- The University could help here (either via modest funding or by explicitly including this kind of engagement in evaluation criteria for individuals and for the faculty as a whole).
- It is also recommended to alert UGOT's Communications Unit when something happens at the Faculty. They often help promote research news. (See Recommendation 9).

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Although there are potential risks that the same course content might be provided by the two departments, the Faculty is of the view that this is largely managed and, in any case, problems of very large cohorts would subtract from possible efficiency gains.

C3.2 Doctoral education

There is a decline in PhD students which is a concern since these students represent the future of research.

Strengths

- Strong and high-quality research environment within which to study.

Weaknesses

- Some concerns were expressed by doctoral students concerning the range and relevance of courses available.

Recommendations

- It is unclear how much the decline in numbers is due to a lack of funding or lack of candidates. The latter may be addressed by actively contacting master's students and involving them in research activities during their master's studies. The former is harder to address as it may entail a trade-off with the number of postdocs at the Faculty. It is important that any 'reward' system, or perceived 'reward' system properly reflects the value of PhD completions to faculty and university level.
- The Faculty should explore the possibility of providing a joint research methods course (See Recommendation 7).

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There is a strong culture that demonstrably values high-quality scholarship and research. Staff behave in a collegial and supportive fashion. There is much to be proud of!

Weaknesses

- There is very little research collaboration between the two departments.

Recommendations

- More can be done to promote cooperation between the departments, both formally e.g., through professor meetings and shared research seminar programmes, and informally via social events and opportunities to meet (see Recommendation 4).

D2. Publication strategy

This is largely managed at the departmental level. There is a growing tendency to value quality over quantity which we consider to be a wise decision. We agree that journal papers need to be encouraged and highly rewarded.

Recommendations

- We recommend that bibliometrics be used with extreme caution, in particular when making assessments or decisions regarding resource allocation. This is for at least four reasons:
 - a. There is a tradition of valuing conference publications in IT – probably more so than almost any other discipline – and many conferences are highly competitive, yet these are often not captured by e.g., Scopus or Web of Science.
 - b. Different disciplines have markedly different impact factors, not least due to variation in the size of the pool of researchers and differing practices in terms of co-authoring practices. The consequence is researchers in, say medicine and physics, tend to get higher scores, and faculties such as the IT Faculty, get less.
 - c. In a world where bibliometrics are growing in ubiquity we would encourage the faculty to consider the San Francisco Declaration on Research Assessment (DORA), which argues quality should not be conflated with journal impact factor.
 - d. Bibliometrics can easily be gamed.

D3. Facilities and research infrastructure

The Faculty does not perceive any special needs in this regard. There is some limited local technical support e.g., for the Network and autonomous car labs.

Recommendations

- The Faculty might consider how the provision of research labs and collaborative workspaces might create tangible demonstrators for students and visitors plus new opportunities for researchers to work together in new ways. (See Recommendation 10).

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The Faculty is well aware of the challenges in achieving gender balance in CSE. This is not unique to UGOT but a challenge in many countries.

Recommendations

- Continue identifying strong female candidates; this can start already when recruiting PhD students, by encouraging female master's students to apply for a PhD (see Recommendation 11).

D4.2 Internationalisation

The Faculty has many international links and CSE has a growing international reputation. Much of their work is undoubtedly world-class. As the Faculty produces more and more high-quality research this naturally generates more international interest. We do not see any problems in this regard.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Due to the positive and supportive environment there is a good deal of mentoring and sharing of experience/wisdom.

Weaknesses

- The mechanisms appear somewhat informal and there is a risk (perhaps not a very large one) that individuals may “fall between the cracks”.

Recommendations

- Systematic assignment and tracking of mentoring could ensure nobody is overlooked.
- Writing workshops might be a good initiative.

E2. University-wide support

Weaknesses

- It is important to understand that development in IT often requires quick decisions and that obtaining university-wide consensus may hinder this.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Most issues from RED10 have been properly addressed.

F2. Other matters

The panel has not separately addressed this question.

CONCLUDING RECOMMENDATIONS

1. Inability to cover additional overheads for funded research projects is a significant threat to the research being undertaken by the faculty. Ironically, the more successful the Faculty is in obtaining research grants the more challenging it becomes for the overheads to be funded. We understand this situation almost jeopardised a grant in the Software Engineering Division of CSE, which was only resolved by re-allocating costs among the other consortium partners. The Faculty needs to urgently investigate why departmental overheads appear so high and what steps can be undertaken to ensure funding, including whether university research funding is appropriate given the high level of research activity.
2. Investigate the possibility of moving certain administrative support to the faculty level in order to reduce the rather high overhead costs of the departments, and also look at the need for various administrative functions.
3. Continue the work on making the IT Faculty the university's main AI centre.
4. Foster more cross-department collaboration e.g., professorial meetings, joint seminar series, workshops, retreats, encourage more AIT projects with the Software Centre, etc.
5. Invest in determining and owning a Faculty-wide research vision.

MINOR:

6. The recruitment process can take a long time to the extent of potentially losing appointees who find alternative employment. The Faculty should look at ways to streamline and speed up administrative routines (prepare templates,

checklists, reminders). In addition, look into the possibility of having the external evaluators produce a joint report rather than individual assessments. If so, this could create social pressure not to be late in delivering an assessment.

7. Look at the PhD teaching provision and consider opportunities for joint (between CSE and AIT) courses.
8. Make sure that the communication networks of senior researchers are preserved / can be transferred to junior researchers.
9. The University could support public engagement activities, via modest funding and also by explicitly including this kind of engagement in evaluation criteria for individuals and for the Faculty as a whole.
10. The Faculty might consider how the provision of research labs and collaborative workspace could create tangible demonstrators for students and visitors plus new opportunities for researchers to work together in new ways.
11. Continue to monitor the gender balance (this is more problematic for CSE) and explore what actions might lead to improved balance and inclusivity.

DEPARTMENT OF APPLIED INFORMATION TECHNOLOGY

652	Introductory Remarks
652	Section A – Background and Research Standing
652	A1. Background
653	A2. Research standing
654	Section B – Leadership
654	B1. Leadership
655	B2. Recruitment
655	B3. Career structure
655	B4. Funding
656	B5. Feedback and evaluation
656	Section C – Complete Academic Environment
656	C1. Collaboration
657	C2. Relevance and impact on society
658	C3. Research-teaching linkages
659	Section D – Academic Culture
659	D1. Academic culture
660	D2. Publication
660	D3. Facilities and research infrastructure
661	D4. Transverse perspectives
661	Section E – Support
661	E1. Internal research support
662	E2. Faculty and University-wide support
662	Section F – Other Matters
662	F1. RED10 evaluation
662	F2. Other matters
662	Concluding Recommendations

INTRODUCTORY REMARKS

No introductory remarks from the panel.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department is broadly addressing the ongoing digitalisation of society and is organised into three divisions:

- Informatics;
- Learning, Communication and Information Technology;
- Cognition and Communication.

All three divisions have both research and education. But it is unevenly balanced, with one division being more research oriented and one more education. Both these divisions should be more balanced, which is also the goal of the Department.

Department management comprises the Head of Department (HoD), three Deputy Heads (for department, research and doctoral education, as well as education on undergraduate and master's levels), and four division heads (fourth division is Administration), who meet bi-weekly and discuss all issues.

There are four advisory teams: the department council, the work environment and equal treatment group, the research and research education council, and the education advisory council.

The department hosts one cross-university centre, is part of a national centre, and hosts an IT theme within a University of Gothenburg (UGOT) centre. The department also participates in activities within networks and projects.

As in many academic institutions, the organisation of the department is a result of history, strategic consideration and opportunities. The current organisation into three (academic) divisions covers broad areas. The exact division of concern among the three divisions is not easy to discern, nor are the connections and links between the three divisions.

The department's organisation in three divisions is mainly to make it easier to handle staff. In fact, the divisions cooperate and research between divisions is carried out if needed and wanted. We see no need for organisational changes at the moment.

The department is, however, growing and may need to form yet another division in the near future.

A2. Research standing

The department's research strength is its ambitious effort to address the theme of digitalisation in society from the level of individuals to organisations, institutions and the public.

There is a strong historic tradition of significant academic freedom for faculty to devise their own research agenda. There are a variety of avenues and areas intended to encourage cross-fertilisation and quality enhancement in research (seminars, writing groups). There is also a recognised need to further gender balance.

There are few explicitly articulated visions, aspirations, strategies and plans regarding research on the medium-term years beyond fairly general statements, be it growth in publications, projects, Phd candidate production or expansions into targeted areas. Without such a plan/strategy, identifying sensible recommendations from our evaluation is not straightforward.

The publication record of the department has improved in the years since the RED10 evaluation, presumably helped by the number of facilitating mechanisms (see above) put in place.

The overall publication production is reasonable, for instance with about 20 journal articles per year. It would be helpful if the amount of research time for the different types of staff had been specified. With the relative high number of senior/lecturers (26 FTE compared to 4.7 FTE professors) it would be instructive to know the amount of senior/lecture time that is committed to research.

Moreover, the number of 'high-quality' journal publication (Level 2) is only four per year (averaged over the last three years) but includes publications in meritable outlets such as MISQ and JAIS ("basket of 8" in IS).

The department has relatively few (active) PhD students, which has resulted in quite a low number of completed PhDs per year (2–4 in the last few years).

The department has a healthy record of attracting external research funding, notably for moderate-sized projects. There is no plan to lead large EU-funded research projects.

The department holds an annual funding conference with subsequent grant-writing support, which has been successful. Senior researchers also support junior researchers in improving their publication quality.

The department has had less success in securing larger research projects (e.g. from the EU).

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The research agenda is left to the discretion of individual researchers, with few top-down managerial constraints. This is consistent with classic ideals of (Humboldtian) universities.
- Gender balance of staff is sound, with about 40% women.

Weaknesses

- Overall research output (publications, especially ‘high-quality’ + PhD candidates) is moderate rather than outstanding. If the department aims to excel, perhaps stronger incentives/mechanisms (see below) are called for? In its self-evaluation, however, the department stated seeing “few arguments to alter” existing approach.

Recommendations

- Even in an environment with extensive academic freedom, there could be space for some more pro-active, strategic initiatives and incentives to make leadership more tangible.
- Consider strategic initiatives to support targeted groups/activities i.e. introduce incentives to nudge research in certain directions.
- There should be a mentorship programme for new (early-career) researchers as well as mid-career researchers.

B1.2 Faculty/University level leadership

Strengths

- The department has a sound track record of attracting external research funding, not the least from some of the private (Wallenberg) and regional research funding bodies.

Weaknesses

- As proposed in the self-evaluation, cross-divisional collaboration within the department could be strengthened.

Recommendations

- With the ongoing discourse of digitalisation and the foregrounding of AI, there should be new opportunities to combine AI with Learning (for instance, learning analytics) or AI with Information Systems (for instance, studying the appropriation of AI in organisations). These opportunities do not seem to have been taken up with much energy yet.
- The department should seek more extensive collaboration with its sister department at the faculty, especially since AIT is relatively small, hence vulnerable.

B2. Recruitment

Strengths

- There is a healthy gender balance which should not be lost.

Weaknesses

- The department struggles to get appropriate applicants for all its open positions. The recruitment process takes a very long time and is resource-demanding.
- Recruiting 10 new lecturers may be good but probably difficult. Doing so in a short period of time may also be problematic, given that the department has 35 faculty at the moment. This implies a considerable amount of new faculty.

Recommendations

- Look for researchers who are available and ensure that they apply for new positions instead of hoping to get the right person for a new position.
- Advertise positions through more channels, including social media, to attract applicants internationally.
- Make a five-year recruitment plan to avoid the current situation of recruiting 10 new staff members. Take into account staff who are leaving or advancing in their careers.

B3. Career structure

Strengths

- A funded research school that gives junior researchers the chance to engage PhD students is a very good way to support junior researchers. Organising travel to strong research environments in other countries is also a promising initiative.

Weaknesses

- The promotion of lecturers to professors who do not want to take a research leader role is unfortunate.

Recommendations

- Although there is a reasonable gender balance among junior staff, it is less balanced at the more senior management levels. Having female colleague groups/mentors can help.
- Make career structures more explicit and systematic, to complement the individually-tailored current approach.

B4. Funding

Strengths

- Individual researchers at the department have attracted significant, and increasing, external funding.
- The department has decided to fund three PhD students enabling a larger community of PhD students.

- The department provides excellent support for junior faculty in writing research proposals. The department funding conference is a good initiative; it has also resulted in new research proposals.

Weaknesses

- Mostly smallish projects, less success with larger ones and relatively little effort put into applying for larger projects.
- Perhaps overly reliant on particular funding sources (Wallenberg, regional funds) and not as much on other national/international sources.
- Despite significant external research funding, the number of PhDs and post-docs in the department is relatively modest. University policy hinders certain funding when overhead costs are not fully supported. Some funders do not finance PhD students.

Recommendations

- Try to differentiate funding from different sources, i.e. increase robustness of funding and allow for funding of PhD students.
- Try to attract industry funding as well.
- It is probably wise to ensure that internally financed PhD students overlap by one year to facilitate research education knowledge transfer.

B5. Feedback and evaluation

Strengths

- There is institutionalised feedback on research metrics. The bi-weekly newspaper is used as a source to highlight achievements.

Weaknesses

- Given that the research is oriented towards basic research and theory building, one could have anticipated a larger percentage of level 2 publications.
- It appears there is no systematic qualitative assessment of publications.

Recommendations

- More consistent practice on providing feedback to individuals in employee talks.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The department, mainly through the senior faculty, has an extensive national and international research network of collaborators.

- There are centres and labs with significant collaboration between UGOT and other national and international partners, especially the Swedish Centre for Digital Innovation.

Weaknesses

- As noted in the self-evaluation, external collaboration is tied to individuals rather than institutionalised.
- International collaboration appears to be less extensive than national and internal (cross-faculty).

Recommendations

- As external collaboration is mainly tied to individuals it is important to ensure that networks and collaborations continue after senior researchers retire.
- Encourage early-career researchers to collaborate internationally by modelling ways to do this effectively.
- Introduce a guest programme to invite international researchers on a regular basis for a few weeks.
- Facilitate mini-sabbaticals for faculty to spend 2–6 weeks at an international university.
- Need to consider climate change in the light of international collaboration. Include policies for attending and travel to conferences and models of alternatives to travel.

C1.2 Collaboration with external stakeholders

Strengths

- The department has extensive and varied exchanges with external, non-academic organisations. This is one of the characteristics – and strengths – of the department.
- These exchanges also enable access to organisationally-owned data and study objects.

Weaknesses

- Not that much industry collaboration.

Recommendations

- Extend executive education programmes as a vehicle for cultivating interactions with external, non-academic partners in public and private organisations.
- Extend the use of ‘adjunct researchers’ who straddle industry and departmental work.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- There is good awareness of the potential for greater impact.

Weaknesses

- Commercialisation is weak according to the self-evaluation.
- There appears to be little attention given to entrepreneurship and innovation, both in education and research.

Recommendations

- Utilise the university facilities for entrepreneurship (seed money, patent advice, etc).
- Develop policies and suggested pathways to impact for individuals or teams to follow – a range of different ways to have relevance and impact on society.

C2.2 Research relevance and impact on society**Strengths**

- A distinguishing strength of the department is its relevance and impact – beyond traditional research output and education – to society at large. It is for instance stated that the department has delivered 100 annual speaker assignments at non-academic events, demonstrating its commitment to reach beyond narrow academic channels.

Weaknesses

- Software tools could be made more openly available in a sustainable manner.

Recommendations

- It is inevitable that the UN Sustainable Development Goals will play a more important role, especially among research funders. Researchers at the department should be better prepared to consider these in future applications.

C3. Research-teaching linkages**C3.1 Undergraduate and master's education****Strengths**

- All staff are involved in teaching, at some level, and the policy is that all faculty should be involved in teaching.
- Involving master's students, as done in the CEVT course, is an excellent way of both motivating students and conducting interesting research at no cost.

Weaknesses

- Teaching load is quite uneven as there is a lack of staff in certain areas.

Recommendations

- Make sure that the initiative involving master's students in research is continued and not a one-off initiative.

C3.2 Doctoral education

Strengths

- Close, organic relationship between PhD students and faculty maintaining the ‘German’ academic culture of individual projects.
- PhD schools and annual spring supervisor conference useful and valuable arenas for PhD students to meet and engage.
- Collective spaces for PhD students to facilitate communication and, perhaps, collaboration, are important for the PhD students.
- PhD students co-teach with senior faculty.

Weaknesses

- Overall, the number of PhD students in the department seems low. And, as stated in the self-evaluation, this includes part-time students.

Recommendations

- If the department is to scale up PhD numbers, there must be more attention on creating common courses (e.g. on methods) to foster cohorts.
- If scaling up PhD numbers, there is possibly a need to devise larger projects comprising several PhD projects, rather than the more atomistic projects that currently dominate.
- Check consistency of opportunities for PhD students and information-sharing about seminars etc. across divisions and sites.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There is a culture that facilitates academic freedom. This is also cultivated through a set of different seminars, some grander and more formal than others, to enhance the exchange of ideas.
- There are both female and male role models.

Weaknesses

- Freedom is a double-edged sword: it is attractive but only up to a point. Then it may lead to scientific loneliness, never or rarely being seen/recognised.
- Junior faculty are the most frequent visitors to seminars and research activities. If senior researchers do not attend seminars it may foster a culture where seminars are considered activities for newcomers, where in fact seminars should be an integral part of university culture.

Recommendations

- Help junior faculty write research funding applications, and also where to find opportunities.

- Support for including junior faculty in senior faculty networks and vice versa.

D2. Publication

D2.1 Publication strategy

Strengths

- A shift over the last few years from quantity (conferences) to quality (journals). This comes, as it should, in tandem with discussions and reflections around the rationale of complying with the disciplining effects of the commodification of research quality in the form of various lists and ‘quality’ levels.
- Awareness of different publication strategies, low-level and high-level publications may both be valid.

Weaknesses

- There is, as noted in the self-evaluation, no policy on departmental publication strategy. Even without a policy, it might be useful to set and work towards common aims.

Recommendations

- Work out a differentiated publication strategy, taking authors’ ambitions into account.
- Optional internal peer-review arrangements for draft papers, to improve quality and reach different audiences.
- Identify researchers that do not publish frequently and also look at means to help junior faculty publish research.

D2.2 Analysis of bibliometric data

Strengths

- There is systematic attention to analysing bibliometric data.

Weaknesses

- Only supply-side attention to publication (=the publications), not the demand-side (=citations).

Recommendations

- Review citations and well-cited papers to understand uptake of research. Analyse impact; citations.

D3. Facilities and research infrastructure

Strengths

- There is a set of research labs, PhD school engagement.

Weaknesses

- Are the labs fragmented?

- Distributed faculty, meaning that certain infrastructure is not on campus.
- Referring to other sections of the document possibly suggests lack of specific focus on this aspect, e.g. to see if there are gaps.

Recommendations

- Review the distributed infrastructure to check it is adequate.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- Attention to and actions regarding gender balance.

Weaknesses

- Conducting analysis of financial and publication data in relation to gender with no plan for what to do with the data.
- No comments about career progress/advancement in relation to gender or ethnicity.

Recommendations

- (None given)

D4.2 Internationalisation

Strengths

- Guest researcher programmes – in place or just planned? How many have visited, say, over the last five years?
- Announce positions in English, but how many of the staff are non-Swedish speaking? Is the department perceived as internationally open?

Weaknesses

- Not really any ongoing or planned activities.

Recommendations

- Mini-sabbaticals for faculty on all levels, for a period of a couple of weeks, and funded by the department.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The department has a well-functioning support structure for administrative aspects related to research, which operates in close relation to the scientific staff.

Weaknesses

- No technical support, at least no staff and not mentioned. Does that mean that every researcher has to handle such issues individually? This may be very inefficient.

Recommendations

- Strengthen and streamline labour-intensive recruitment processes, which are quite demanding for staff at the department.
- Make staff aware of administrative support that is or is not available (if not done already).

E2. Faculty and University-wide support**Strengths**

- Technical and administrative support at the university level is adequate.

Weaknesses

- The two departments within the faculty seem to have few linkages and interactions.

Recommendations

- Use university-wide support for information about upcoming funding opportunities and, perhaps, peer-review of funding applications.

SECTION F – OTHER MATTERS**F1. RED10 evaluation**

Many of the recommendations from RED10 have been properly addressed.

Some issues remain. International collaboration exists but could be more clearly articulated.

The recommendation on strengthening the flux of junior faculty seems to have not been handled, and this is something that we have also addressed above.

F2. Other matters

The panel has not separately addressed this question.

CONCLUDING RECOMMENDATIONS

The department is characterised by an **unusual and very positive level of collegiality** and sense of shared purpose, which is an excellent basis for a supportive research environment.

The increased number of **links** across the divisions should continue and be strengthened to further forge a shared identity. We are particularly impressed by how the department has managed to handle the significant unevenness in teaching load across the divisions, something that without a healthy dose of generosity might have created tensions.

The long-term **vision and research aims** of the department remain rather unarticulated beyond the theme of digitalisation of society. There is a need to convey the distinctiveness of the research being carried out. We recommend that the vision and aims be **made explicit** hence leading to discussions about strategic choices.

For instance, the aim of expanding will need to address concerns for formalising and streamlining PhD education (common courses, joint projects). Non-organic growth may be a possibility, say, by forging alliances with other departments, such as Computer Science, the School of Business, Economics and Law, or the Faculty of Education, so as to more comprehensively cover the implied areas under “digitalisation of society”.

The department is arguably unbalanced in focusing mostly on the **demand-side** (users of technology) decoupled from the **supply-side** (design, development and innovation) of digital technology, so should the department collaborate more with those on the supply-side?

There is an untapped potential to exploit topics that attract attention from society, for instance the current **AI boom**, by taking a leading role in studying its long-, and short-term, effects on human competence and society. This would give the department a **distinctive perspective** on a topic numerous scholars are already looking at.

We recognise and appreciate the department’s (Humboldtian) tradition of extensive, individual academic freedom, including at the level of PhD projects. This has served the department well up to now. The staff overwhelmingly express that they are happy with the current situation. **However, if the ambition is to scale up** – increased number of staff, students, PhD students, postdocs, publication output – attention must also be paid to measures and mechanisms that support the scaling-up of research. Currently, the research output in terms of finished PhD candidates (2–4 on average per year) is rather low and high-quality journal publications moderate (given number of academic staff).

We recommend the department to recruit more PhD students that will be **on campus** and fully employed, and have fewer part-time, external PhD students who do not appear to contribute to the department as much.

There are no sabbaticals (if you do not secure funding yourself). We recommend measures to increase **mobility and internationalisation**, for instance, in the form of mini-sabbaticals of two-three weeks over the summer. It might also be a good idea to introduce a programme for inviting international guests to the department,

during which the guests spend a couple of days on-site, beyond giving a seminar, in order to allow them to informally meet with staff and PhD students.

Interaction with **industry** is limited. The department should seek to broaden its interactions, whether by securing research funding directly from industry, or perhaps by setting up executive teaching programmes to cultivate relationships with industry.

There is no formal **mentoring** scheme at the department. We recommend setting up a scheme (possibly using mentors from other departments) targeting both junior and mid-career faculty.

The **recruitment process** takes a long time. We recommend that the department look into ways to streamline and speed up administrative routines (prepare templates, checklists, reminders). In addition, look into the possibility of having the external evaluators produce a joint report rather than individual assessments. If so, this would create social pressure to not be too late in delivering their assessment.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

666	Introductory Remarks
667	Section A – Background and Research Standing
667	A1. Background
668	A2. Research standing
670	Section B – Leadership
670	B1. Leadership
672	B2. Recruitment
672	B3. Career structure
674	B4. Funding
674	B5. Feedback and evaluation
675	Section C – Complete Academic Environment
675	C1. Collaboration
676	C2. Relevance and impact on society
677	C3. Research-teaching linkages
678	Section D – Academic Culture
678	D1. Academic culture
679	D2. Publication
679	D3. Facilities and research infrastructure
680	D4. Transverse perspectives
681	Section E – Support
681	E1. Internal research support
681	E2. Faculty and University-wide support
682	Section F – Other Matters
682	F1. RED10 evaluation
682	F2. Other matters
683	Concluding Recommendations

INTRODUCTORY REMARKS

We would like to express our gratitude to the department, and to the University of Gothenburg (UGOT) as a whole, for their hospitality and a smooth and efficient evaluation process. This was particularly impressive given that the appointment of a new (acting) Head of Department coincided with the start of our visit (1 April 2019).

The panel comprised two members from the 2018 Chalmers University of Technology research review and an additional new member. However, we sought to review the department *afresh*, although of course, enriched with the background understanding and insights that derived from the previous visit.

We were able to meet undergraduate, postgraduate and PhD students, early-career researchers, recently-promoted researchers, division heads or their representatives, and the HoD. We did not, however, attach much significance to bibliometrics. The panel felt that these do not suit Computer Science well, due to the discipline making substantial use of conferences, which are often not effectively indexed by bibliometric databases. In addition, these metrics can be easily gamed, e.g., by concentrating on writing review articles.

Overall, we were very impressed by the high quality and quantity of research output. Many of the research groups are amongst the top five in the world. Moreover, the international research standing of the department is clearly rising and this augurs well for the future. There are strong collaborations at all levels; we were particularly impressed by the Software Center as a vehicle for industrial research collaboration.

Our principal recommendations (the full list is given in the Concluding Recommendations) are:

Strategic planning: We recommend the department engage in a formal strategic planning process to determine important research directions and goals for faculty hiring over the next 5–10 years. We recommend that UGOT and Chalmers administration conduct joint long-term planning concerning Computer Science and Engineering, perhaps via the creation of a joint oversight/governance committee.

Division structure: Seriously consider merging smaller divisions in order to create more viable groups (due to funding vagaries), for instance Logic and Types, Functional Programming, and Formal Methods.

Hire more AI/machine learning professors by providing the department with new faculty funding. This is a strategically important subject due to its huge economic and societal significance. The recent recruitment of three new AI faculty is an important step towards this goal, but is not sufficient as compared to the societal importance of this area.

Use the *Software Center* as a template for a similar AI/ machine learning centre.

Research grant overheads: The University should take the lead in asking funding agencies to reverse the practice of intentionally under-funding research grants. Perhaps consider a coordinated effort from UGOT, Chalmers, and other Swedish universities to refuse to accept these grants in order to effect change.

In the meantime, provide the department/faculty with sufficient financial flexibility such that the situation of turning down grants due to the inability to fund the shortfall does not arise.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Department of Computer Science & Engineering (CSE) is unusual in the University of Gothenburg University (UGOT) in that (along with the Department of Mathematical Sciences) it is jointly shared with Chalmers University of Technology. Therefore, some staff are employed by UGOT and a majority by Chalmers. In practice this seems to generally work well and allows the department to have a critical mass and consequently a far greater impact than otherwise would be possible.

It is relatively large (almost 100 faculty) and is organised as nine divisions that cover a wide spectrum of research topics from formal computer science and computer engineering to software engineering and human-computer interaction (HCI). The divisions *vary considerably* both in size and breadth of scope. Whilst we recognise staff can, and do, collaborate across division boundaries, we found it surprising that there are significant overlaps. In addition, at least one well regarded but very small division appears to be experiencing viability problems. Consequently, we feel that the organisation of divisions is something the department might fruitfully revisit.

The atmosphere is strongly collegial and the department leadership makes considerable efforts to have a consensual decision-making process.

The department is one of two, along with Applied IT (AIT), that comprise the IT Faculty. This is one of the smallest in UGOT. There seems to be little active collaboration between CSE and AIT. The faculty structure is further complicated by the fact that it is unique to UGOT and mainly seems to serve as a conduit to channel resources to the department and provide some voice to UGOT senior management.

Overall, the department is well organised, well led and, given the potential for friction arising from differing processes and structures from the two universities, smoothly running.

However, an area of some opacity is the funding regime and this is exacerbated by CSE being split across Gothenburg and Chalmers universities. There seem at least two potential harms: (i) it hampers strategic planning and (ii) it might limit externally-funded research programmes given the typical requirement of a UGOT contribution to overheads.

A2. Research standing

To summarise:

1. The research standing of the department is strong (nationally and internationally) and is clearly rising, which augurs well for the future.
2. A number of the research groups are arguably amongst the top five in the world, specifically, Information Security, Functional Programming, Software Engineering and Logic and Types.
3. Overall, there is a good breadth of research that covers most major areas of computer science.
4. Faculty, and indeed all research staff, are highly collegial and this manifests itself in their research activity. There are many examples of collaboration at all levels, within division, across division, across departments, with industry and internationally.
5. The department has been very successful at attracting research grants from multiple sources. This broad portfolio of funding sources should provide some resilience against a changing funding environment.
6. The links with industry, and the Software Center in particular, are a beacon of good practice and attracts the envy of all the panel members!

A2.1 Quality of research in the department

In a nutshell, we were impressed.

The following are just a few of many examples of the high esteem researchers from CSE are held in:

- The Wallenberg AI, Autonomous Systems and Software Program (WASP), which is Sweden's largest individual research programme ever (SEK 2 billion).
- There are two prestigious ERC grants (an Advanced Grant in Computer Architecture and Starting Grant in Symbolic Computation and Automated Reasoning for Code Analysis).
- Two members of CSE have been recognised as ACM Fellows.
- Other indicators of research strength are that the total yearly external research funding for CSE has grown from SEK 78 million in 2013 to SEK113m in 2017, i.e., a 45% increase. Also, the publication record of CSE is strong. Notwithstanding our reservations concerning bibliometrics, at least 10 researchers have a Hirsch Index > 30. This is indicative of breadth and sustained research impact.

A2.2 Aspirations and vision for the medium-term (5–10 years)

The self-evaluation report states that CSE: “*does not have limitations or strategic plans for the research programmes or research projects, i.e., individual researchers can pursue the research topic of their choice*” and also proposes a strategy generating approach of: “*focusing on research discussions and self-setting of research goals by our faculty*”.

This is fine and sits well with the open and supportive research culture of CSE. In addition, one must respect academic freedom. Nevertheless, of itself, it could be seen as quite passive. We wonder whether more specific mechanisms such as identifying and sharing “grand challenges” suitable for a 10-year time horizon might augment this approach. We are also strongly of the view that $m \ll n$ where m is the number of challenges and n the number of divisions. This would oblige divisions to share ambitions, visions and expertise.

We noted that on occasions a call for grant applications could act as a vehicle for collaboration and local goal setting, however the time horizons and scope tend to be modest notwithstanding the importance of responding to, and working collaboratively for research grants.

There is limited evidence of how the faculty are collectively working to shape the department vision. Rather the 5–10-year visions are devolved to the divisions and tend to be expressed in researcher-centric terms e.g., X will grow in importance and we will deploy technique Y. This kind of thinking is clearly important in order for divisions to function effectively, but the time horizon, ambition, outcomes and sense of beneficiary are slightly underwhelming.

Having said this, CSE has identified AI as a growth area and the panel is strongly supportive of this aspiration. Presently there are relatively few faculty in AI / machine learning and this is undoubtedly restricting growth opportunities. CSE should hire more AI/machine learning professors, which would probably require the faculty/UGOT/Chalmers providing the department with additional funding resources.

We believe additional emphasis on creating and articulating clear and shared research vision(s) for a ~10-year time horizon could have a number of positive benefits. First, it could strengthen the *esprit de corps*. Second, it could strengthen communication and engagement with other parts of UGOT. Third, it would be valuable for promoting the purpose and value of research to the government and public.

However, a vision needs resources and strategic plans. We **recommend** the department engage in a formal strategic planning process to determine important research directions and goals for faculty hiring over the next 5–10 years. We recommend that UGOT and Chalmers administration conduct joint long-term planning concerning CSE, perhaps via the creation of a joint oversight/governance committee.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

For this report, we view department leadership as comprising the Head of Department (*prefekt*), the three Vice Heads of Department (three *viceprefekter*), and the nine Heads of Division.

Strengths

- Our overall impression is that the department is very well managed. It oversees a large number of staff spread across two campuses, directs a broad portfolio of degree programmes, and has a wide range of facilities and research centres. Especially with a faculty spread across two major campus locations, one would typically expect some problems or friction between the faculty at each location, but we saw no sign of this. CSE oversees a complex operation, and it appeared to us to be functioning well.
- The Head of Department, Patrik Jansson, had only just started the day our visit began. However, due to the experience he received while serving as Vice Head of Department, Patrik was generally able to answer our questions with a high level of detail, and he has a strong overall command of the operations of the department. The structure of having three Vice-Heads thus provides a good approach for succession planning in the department.

Weaknesses

- We observed a lack of department-wide strategic planning activities. The external review report provides almost no evidence of strategic planning or thinking. For example, there does not appear to be a hiring plan document at the department level that outlines hiring priorities over the next 3–5 years. The strongest evidence of this lack of department-wide planning comes in the external review report, where it states, “*Regarding where the department aspires to be in 5–10 years’ time with respect to its research and research relevance, we believe it may be more relevant to summarise the visions of each division.*” A plan that is the combination of the plans of each division is not really a strategic plan for the department, since it does not prioritise hiring, nor indicate which areas will receive more (or less) investment or provide space for hiring in new areas that are outside existing areas. This approach to planning just reinforces existing research areas without serious critical examination.

- While the department has received three new faculty hires in artificial intelligence and machine learning, a positive response to last year's external review of Chalmers, we feel that this is still not commensurate with the tremendous societal impact of these technologies. We **strongly recommend** further hiring in this area, and hope this would be evident in any strategic planning document produced by the department (see recommendations below).
- The self-evaluation report mentioned, "*the focus on line management and poor communications have led to a disconnect between the faculty and the department management team.*" We did not see any evidence of this during our visit, and are puzzled by this mention in the report. Similarly puzzling, it was unclear to us why there had been such a sudden departure, mid-year, of the prior Head of Department. While this communication issue was raised as one explanation, another was the overall workload of the position. We found the latter explanation more convincing, but did not dig into this issue in much depth. For such a large department, it did appear that the top-level management structure was pretty sparse; it may make sense to add another high-level management position to ease the workload of the Head of Department.

Recommendations

- Perform a strategic planning process at the departmental (not divisional) level (see A2.2 above).
- Examine the workload and functions of the Head of Department. As the department has grown in recent years, it appears that the management structure needs to be expanded to ensure the workload associated with the Head of Department position remains manageable. Especially since the position needs to coordinate two university bureaucracies, we imagine this position is quite complex, and the full complexity might be hidden from the perspective of just one university's management.

B1.2 Faculty/University level leadership

Strengths

- During our review, we did not focus significant attention on faculty- and university-level leadership. During our dinner conversation with the Dean of the IT Faculty, we were impressed with his interest in Computer Science and Engineering, and his desire to create more research collaborations between CSE and Applied Information Technology.

Weaknesses

- As noted above, there does not appear to be a regular, multi-year strategic planning process in place.

Recommendations

- As noted above in B1.1 and A2.2, we strongly recommend that CSE engage in a strategic planning process concerning research areas and future hiring. Faculty

leadership can help in this process, by making this strategic planning process an expected activity for all departments in the IT Faculty.

B2. Recruitment

Strengths

- The department has widely advertised job postings, and has internationally strong candidates for its positions. New faculty hired into the department are strong and have international visibility.
- In response to the Chalmers external review report, the department has taken steps to provide faculty with the ability to provide feedback on hires before an offer is made. This is a positive step.

Weaknesses

- As noted above (in B1.1, A2.2), there is a lack of a department-wide planning process for determining new areas for faculty hires.
- There is still a surprising lack of overall departmental engagement in the faculty candidate visits and job talk presentations. We feel it is important for the department as a whole to have much greater engagement in the process of hiring new faculty members. This will improve faculty buy-in on hires that are made, as well as spreading knowledge about the kinds of research and people being brought into the department.
- There does not appear to be a formal way of gathering student feedback on faculty candidates. Such input can often identify weaknesses in candidates that are not immediately visible to faculty interviewers.

Recommendations

- We did not deeply explore how faculty candidate postings are made; we sense there might be an opportunity to make postings on major US-centric job boards operated by the Association for Computing Machinery (ACM) and the Computing Research Association (CRA). These are the primary locations for posting faculty positions in the US, and might lead to a broader, more international pool of faculty applicants. Such efforts might also improve the diversity of the applicant pool.
- We also recommend that the department develop specific strategies for outreach to women candidates to improve the diversity of application pools.

B3. Career structure

Strengths

- The pre-tenure, and immediately post-tenure faculty we talked with were generally happy about the tenure process, and felt supported by the department. Faculty in the Software Engineering division mentioned that they were happy now that tenure expectations were documented, making them more explicit.

Weaknesses

- The requirement to be a docent before one can be the main PhD supervisor puts CSE Assistant Professors at a disadvantage compared to Assistant Professors in the US (and other countries that do not have this requirement). While an Assistant Professor in the US might direct a research group of 3–5 PhD students by the time they receive tenure, in CSE this is not technically possible. As a result, Associate Professors at CSE need to ramp up their research groups once they receive tenure, putting them 3–5 years behind international peers. In practice Assistant Professors do serve as joint advisors for some students; this appears to limit the amount of control Assistant Professors have over the subject area explored by these students, and restricts their ability to bring students directly into their area.
- Recently promoted faculty mentioned that there was no encouragement, expectation, or evaluation of their professional service activities in appraisals. Nor is there much recognition of participation in professional societies, ACM special interest groups (SIGs), etc. Overall, we feel the department's international reputation could be improved by greater participation of this sort.
- While mentorship for pre-tenure faculty appears to be functioning well, we observed that newly-promoted faculty did not have any mentorship on how to achieve the next level, or in general how to approach building their academic career post-tenure. Other than the SE Division, there appeared to be a lack of commonly held understanding on expectations for promotion to the next level.

Recommendations

- Building on the model of the Software Engineering Division, we recommend that all divisions develop written expectations for tenure performance.
- Add services, for instance to international research communities (especially organising conferences and workshops, participating as an officer in ACM Special Interest Groups) to review criteria at Associate Professor and above. This kind of service work is important for establishing the international reputation of a department, yet does not appear to be an explicit part of evaluation criteria for review promotion at these levels.
- Provide a one-course teaching relief in the second or third year for pre-tenure faculty, to provide a boost in the run-up to the tenure review. Several pre-tenure faculty mentioned teaching as a burden, since they are expected to perform so much research on their own.
- Develop mentorship programmes for newly-promoted faculty to Associate Professor to assist them in crafting a plan on how to build a research group, and achieve the next level of their career.
- We recommend working with Swedish national authorities to eliminate the docent system in Sweden. The widely varying meaning and use of this title across countries indicates a lack of common understanding of the benefits of this system. We note that there appears to be a slow trend away from this system across multiple countries. We recommend examining any existing studies on the benefits and costs of the docent system to see if the benefits still outweigh the costs.

- Consider providing financial research support to pre-tenure faculty. In the US system, Assistant Professors regularly have multiple PhD students in their research group, something that is prevented by the docent system. The workaround is co-advising of PhD students, which is then compromised by the lack of funding available to the pre-tenure faculty member.

B4. Funding

Strengths

- Overall, funding levels within the department are strong. The department has been very successful at attracting research grants from multiple sources. This broad portfolio of funding sources should provide some resilience against a changing funding environment. The links with industry, and the Software Center in particular, provide increased industrial relevance and another source of funding for research.

Weaknesses

- None.

Recommendations

- The University should take the lead in asking funding agencies to reverse the practice of intentionally under-funding research grants. Perhaps consider a coordinated effort at UGOT, Chalmers, and other Swedish universities to refuse to accept these grants to effect change. We imagine that a concerted effort by multiple top universities to refuse under-funded grants would quickly lead to reforms.
- In the meantime, provide the department/faculty with sufficient financial flexibility such that the situation of turning down grants due to the inability to fund the shortfall does not arise.
- We repeat a recommendation from the Chalmers external review report that the department consider hiring professional grant writers to assist faculty in the identification of funding opportunities, and in the preparation of large, multi-institution grants.

B5. Feedback and evaluation

We view this section as a way to provide high-level feedback that did not neatly fit within other sections. That said, we felt that the other sections provided a good opportunity for feedback, and we have no other specific feedback to offer in this section.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The department has a very good reputation worldwide. It has many collaborations with other universities and research institutes thanks to its strong presence in national and international projects. Its divisions cover a wide range of research topics, which make the department well placed to respond to the multiple challenges of modern computer science and technology.
- The Chalmers foundation has resources and flexibility to support new initiatives in emerging areas. Notably, it has made an impressive investment (SEK 370m over 10 years) to create a new centre for research in the increasingly important and fast-moving field of Artificial Intelligence. The traditional areas of expertise of the institute, namely transportation, automation and software systems, will provide important application areas.
- A further point of strength is the cooperation with Linköping's Wallenberg AI, Autonomous Systems and Software Program (WASP), which represents one of the largest individual research programmes ever, at the level of a single university.

Weaknesses / Opportunities

- The recently-established Chalmers AI Research Centre (CHAIR) is an exciting initiative and represents a great opportunity for Gothenburg to become a pole of excellence for research, education and innovation in AI.
- There is potential for more interaction with closely related departments at UGOT, in particular the departments of Applied Information Technology (AIT) and of course, Mathematics. Other departments offer an opportunity for interdisciplinary collaboration, for instance the Medical Faculty.

Recommendations

- We recommend that CSE seek further collaboration with the Medical Faculty, as it would provide an important application domain for AI research, in addition to the already mentioned areas in which the department has strong competence. Furthermore, health data is particularly sensitive, which means that a collaboration with the team of Privacy and Security could be potentially very fruitful.

C1.2 Collaboration with external stakeholders

Strengths

- The Software Center, created in 2012 by the Software Engineering division of CSE, is one of the success stories of UGOT. Aiming at constant innovation to ensure that industrial stakeholders stay up-to-date with software engineering practices, it is run in collaboration with a number of large, industrial companies,

including Volvo, Saab, Ericsson, Bosch, Siemens, etc. The close collaboration between the industrial and the academic world is an extremely valuable research opportunity.

- Chalmers is one of the co-founders of the ‘AI Innovation of Sweden’. The initiative, based at Lindholmen Science Park in Gothenburg, was launched in the beginning of 2019 and includes about 40 companies and organisations from the business, academic, and public sectors. The goal is innovation in AI, as well as exchange of knowledge and data among the partners, with a commitment to ensure the security and privacy of such data.

Weaknesses

- None.

Recommendations

- The AI Innovation of Sweden could be an opportunity to create an associated Data Science centre similar to the Software Center.
- Another opportunity could be to collaborate with AIT to create a human-centred computing centre analogous to the Software Center.
- Finally, the department has a strong group in Security and Privacy; they could consider creating a centre for Cybersecurity and Privacy Protection aimed at helping industry to protect their data and to comply with GDPR regulations.

C2. Relevance and impact on society

C2.1 Relevance

Strengths

- The department has a strong tradition in research and its contribution to academic advances are well recognised at both the national and international level. The dissemination of results through standard academic channels is encouraged and scientific production is regularly published in top-tier journals and conferences. Many of the researchers have strong international connections and collaborate with colleagues at universities abroad.

Weaknesses

- The research conducted by many divisions seems to rely entirely on external support (project grants, industrial contracts). This may jeopardise the continuity of their activities and endanger the more theoretical divisions, since presently there are fewer funding opportunities for fundamental research. For instance, it is regrettable that the *Agda* project, the worldwide famous proof-assistant developed by the Logic and Types division, risks “dying out” (not maintained anymore) because of lack of support.

Recommendations

- Consider creating some kind of mutual fund to support the activities of the temporarily less favoured and smaller divisions.

C2.2 Impact on society

Strengths

- The ties with industry and society in general are very strong. Many of the research projects are conducted in collaboration with public and private bodies. Transfer of knowledge for innovation purposes is strongly encouraged and supported by many initiatives.
- The infrastructure created for encouraging relationships with industry in Gothenburg (and Sweden in general) works very well and is a model that other European countries should try to reproduce.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- The department offers undergraduate education in a wide spectrum of topics in computer science and engineering (algorithms, formal methods, distributed systems, software engineering, etc.), ranging from theory to technology. The portfolio of master's programmes is responsive of the changing needs of society.
- The master's courses are organised by the various divisions and are naturally related to their scientific expertise.

Weaknesses

- There seems to be a general lack of awareness among master's students about the research activities of the department. Most of the graduate students we spoke did not have a clear idea of the opportunities for pursuing an academic career.

Recommendations

- Continue to ensure the educational programme is up-to-date with the emerging topics in computing (deep learning, energy-efficient systems, etc.).
- Organise series of seminars to expose graduate students to the world of academic research and try to involve them in the research activities of CSE.

C3.2 Doctoral education

Strengths

- The department offers supervision by world-level top researchers in many different areas.
- The strong ties with industry offer a rich choice of future careers also outside the academic environment.

Weaknesses

- Some PhD students we talked to were unhappy with the range and appropriateness of PhD level classes available to them. However, it was unclear to us what the root cause of this perception was.

- The distance between the two campuses is a problem for attending research seminars.
- An academic career is perceived as difficult because of the financial and logistic instability of the early years.
- Many students, especially in “hot” areas like Machine Learning, seem to be stressed by the perceived high level of competition in their field.

Recommendations

- Examine the provision of PhD research classes. We also recommend examining ways the department could encourage PhD student participation in research-focused “summer school” programmes.
- Encourage participation in the mentoring workshops that are made available nowadays at many conferences (examples: PLMW <https://pop19.sigplan.org/track/PLMW-2019-papers>, EMW <https://conf.researchr.org/track/etaps-2019/etaps-2019-ETAPS-Mentoring-Workshop>, LMW <https://lics.siglog.org/lics18/lmw.php>). The idea of these meetings is to help graduate students and young researchers with advice on the practical aspects of academic careers, provided by more experienced researchers in the form of lectures, round tables, and public discussion. The students seem to appreciate and benefit greatly from these initiatives.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- Overall, there is a strong academic culture within CSE. We heard several mentions of group meetings within divisions, many visitors giving research presentations, etc. There were also many mentions of collaborations with industrial partners. Clearly, the intellectual climate within the department is lively.

Weaknesses

- One issue is the difficulty in participating in research presentations held at different locations. Multiple people at Lindholmen mentioned that participating in research talks at the other campus was challenging due to transit time.

Recommendations

- Add support for remote participation in research presentations via broadcasts of talks and monitoring for outside questions, use of telepresence robots, etc.

D2. Publication

D2.1 Publication strategy

Strengths

- Overall, faculty, postdocs and PhD students in the department are active in publishing their research in competitive peer-reviewed international conferences, workshops, and journals.

Weaknesses

- See below.

Recommendations

- While we generally think the mixture of publication types is good, we recommend the various divisions examine their mix of publishing in highly competitive top conferences and journals vs more specialised (but not quite as competitive) conferences, workshops, and journals. We believe that greater emphasis on top conferences and journals (with perhaps a little more focus on journals over conferences) is appropriate for such a strong department, and would raise the visibility of work performed. The Software Engineering division performed this evaluation in response to the Chalmers external review, and we feel this can be used as a model for other divisions.

D2.2 Analysis of bibliometric data

We do not believe that a focus on bibliometrics is useful in Computer Science. Top departments in Computer Science generally do not pay attention to bibliometrics, and instead focus on identifying important research areas, and performing impactful work in those areas. Further, bibliometrics often miss important conferences in Computer Science, and hence provide a skewed picture of publication and citation counts.

D3. Facilities and research infrastructure

Strengths

- We found that faculty, postdocs, and PhD students had nice individual office or desk space with access to outside lighting where they could perform their individual research work.

Weaknesses

- We were surprised by the relative lack of research lab spaces. In particular, the HCI research area within Interaction Design appears to need lab space (on top of existing PhD student desk space) for a funded research project. Tangentially, it is common practice worldwide for master's programmes in game design to provide dedicated project rooms for final-year projects, and this was not present at the Lindholmen campus. We suspect there are other unmet lab space needs beyond these.

Recommendations

- Perform a survey of space needs of the divisions to see to what extent they would benefit from additional lab space.
- Provide dedicated project rooms for games projects performed by master's students to bring this programme up to what is normal, internationally, for such programmes.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- We are encouraged to see that the number and percentage of female PhD students admitted each year has improved substantially since 2015.
- We also note that the department is taking this problem seriously.

Weaknesses

- We were surprised at the low number of women PhD students, and degrees awarded. According to the doctoral student data provided, only two women have been awarded PhD degrees in the department between 2013–2017. A particularly damaging statistic is that only one out of 16 postdocs is female, indicating that the pipeline into the professoriate from Computer Science and Engineering is predominantly male. The department must take action to address this gender imbalance.

Recommendations

- Continue to focus on the gender balance in the department. At the very least, all postdoc and professor hiring pools need to be evaluated for gender diversity. Search pools that fail to exhibit sufficient gender diversity should result in extensive additional outreach. The department could potentially exert leadership in this space by running the Swedish equivalent of the wildly popular Grace Hopper conference (<https://ghc.anitab.org/>). We also recommend that the department conduct a “climate survey” (see, for example, <https://heri.ucla.edu/staff-climate-survey/>) to better understand the within-department climate for women and ethnic minorities. This survey might reveal factors that make the department less attractive for women students and faculty.

D4.2 Internationalisation

Strengths

- The department has multiple faculty members from other countries, and has an international perspective on their fields of study. Many PhD students and postdocs come from other countries. Overall, we feel the department is very effective at having international participation and perspective in its research.

SECTION E – SUPPORT

E1. Internal research support

In general, the research undertaken by CSE does not make complex demands for support in terms of equipment or specialist support staff. See also D3.

Strengths

- The networking infrastructure (including printing) provided by Chalmers and UGOT is reported to function very well.

Weaknesses

- There is no unified support for backups, software and system maintenance.

Recommendations

- None.

E2. Faculty and University-wide support

Strengths

- The faculty is small and strongly focused subject-wise on IT.

Weaknesses

- There is surprisingly little collaboration with AIT (the other department in the faculty) and few opportunities for faculty to jointly plan strategically. Consequently, many members of CSE view it as a remote and not altogether helpful structure.
- The organisational complexity stemming from the faculty level-management for UGOT complicates and slows the process of making appointments.
- It also complicates the process of seeking UGOT support when a research grant has been secured but does not cover all overheads (as usually seems to be the case).
- Shortage of space and more extensive lab provision would assist some groups, most obviously the Interaction Design division at the Lindholmen campus.

Recommendations

- Perform a survey of space needs of divisions to see to what extent they would benefit from additional lab space. While desk space for PhD students appears adequate, we were surprised at the relative lack of research lab spaces. In particular, the HCI research area within Interaction Design appears to need lab space (on top of existing PhD student desk space) for a funded research project. Tangentially, it is common practice worldwide for master's programmes in game design to provide dedicated project rooms for final-year game projects, and this was not present at the Lindholmen campus.
- Convene a working group to develop mechanisms for increased collaboration with AIT. Possible initial ideas include setting up a seminar series co-organised by groups from each department.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

There were effectively no relevant recommendations from RED10 because the department was so small at that point.

However, we do have some observations from the 2018 Chalmers review of CSE. Two recommendations and consequent responses are:

1. The lack of involvement of the faculty in recruitment processes. This has led to a change that is now being piloted, where the interview days are separated from the decision made by the Academic Admission Board, in order to collect opinions from the faculty about the applicants.
2. More emphasis on top-quality venues for publications. Several divisions have discussed how to change, e.g., Software Engineering has decided to adjust their publication strategy and focus even more on high-impact journals.
3. The panel appreciates that recommendations need to be reflected upon, and change takes time. But we are gratified to see that the department has started the process of responding to the 2018 Chalmers review in a considered and meaningful way.

F2. Other matters

We are not persuaded that the division structure serves the department well. Divisions vary greatly in headcount and in the breadth of research area. This causes problems in terms of subject overlaps, makes inter-division research more difficult and leads to viability problems for the smaller divisions when there are gaps in funding. We strongly recommend as a minimum that CSE seriously consider merging smaller divisions in order to create more viable groups (due to funding vagaries), for instance Logic and Types, Functional Programming, and Formal Methods. A non-trivial issue that both the department and the panel identified is the two campuses issue. This hinders cooperation between the SE and ID divisions and the remainder of the department.

As a minor suggestion, we recommend support for remote participation in research presentations. Multiple people at Lindholmen mentioned that participating in research talks at the other campus was challenging due to transit time.

CONCLUDING RECOMMENDATIONS

1. **Strategic planning.** We recommend the department engage in a formal strategic planning process at the department-level, to determine important research directions and goals for faculty hiring over the next 5–10 years. We recommend that UGOT and Chalmers administration conduct joint long-term planning concerning Computer Science and Engineering, perhaps via the creation of a joint oversight/governance committee.
2. **Hire more AI/machine learning professors** by providing the department new faculty funding resources. This is a strategically important subject due to its huge economic and societal significance. The recent hire of three new AI faculty is an important step towards this goal, but is not sufficient as compared to the societal importance of this area.
3. **Continue to nurture the highly successful Software Center.** The Software Center is an enviable connection point for researchers and industrial practitioners, and is a strong contributor to the success of the Software Engineering division.
4. **Use the Software Center as a template** for a similar AI / machine learning centre. Another opportunity could be to collaborate with AIT to create a human-centred computing centre analogous to the Software Center. Finally, the department has a strong group in Security and Privacy; they could consider creating a centre for Cybersecurity and Privacy Protection aimed at helping industry to protect their data and to comply with GDPR regulations.
5. **Seriously consider merging smaller divisions** in order to create more viable groups (due to funding vagaries), for instance Logic and Types, Functional Programming, and Formal Methods. In the short term, consider creating some kind of **mutual fund** to support the activities of the temporarily less favoured and smaller divisions.
6. **Convene a working group** to develop mechanisms for increased collaboration with AIT. Possible ideas include setting up a seminar series co-organised by groups from each department.
7. **Increase student awareness of research activities** and the possibilities of PhD study. Multiple divisions reported that a lack of PhD students was affecting their ability to perform research, however, we did not hear of any efforts to consistently inform, engage, and motivate undergraduate and master's students to pursue PhD studies. Undergraduate and master's students were generally unaware of research talks, and were unclear about how they might attend them.
8. **Continue to focus on the gender balance in the department.** We were surprised at the relatively low number of women PhD students. A particularly damaging statistic is that only one out of 16 postdocs is female, indicating that the pipe-

line into the professoriate from CSE is predominantly male. The department must take action including outreach to address this gender imbalance. At the very least, all postdoc and professor hiring pools need to be evaluated for gender diversity. The department could potentially exert leadership in this space by running the Swedish equivalent of the wildly popular Grace Hopper conference. We also recommend that the department conduct a “climate survey” (see, for example, <https://heri.ucla.edu/staff-climate-survey/>) to better understand the within-department climate for women and ethnic minorities. This survey might reveal factors that make the department less attractive for women students and faculty.

9. **Perform a survey of space needs** of divisions to see to what extent they would benefit from additional lab space. While desk space for PhD students appears adequate, we were surprised at the relative lack of research lab spaces. In particular, the HCI research area within Interaction Design appears to need lab space (on top of existing PhD student desk space) for a funded research project. Tangentially, it is common practice worldwide for master’s programmes in **game design to provide dedicated project rooms** for final-year game projects, and this was not present at the Lindholmen campus.
10. **Consider deploying the Software Engineering (SE) division model of explicitly articulating expectations** for each employment level (e.g., postdoc, associate professor, etc) across the department and potentially beyond. Continue efforts to maintain uniformity between UGOT and Chalmers employment conditions. We were impressed with the collaborative and consensus-oriented approach adopted by the SE division in their process.
11. **Add services**, for instance to international research communities (especially organising conferences and workshops, participating as an officer in ACM Special Interest Groups) to review criteria at Associate Professor and above. This kind of service work is important for establishing the international reputation of a department, yet does not appear to be an explicit part of evaluation criteria for review promotion at these levels.
12. **The university should take the lead in asking funding agencies** to reverse the practice of intentionally under-funding research grants. Perhaps consider a coordinated effort at UGOT, Chalmers, and other Swedish universities to refuse to accept these grants to effect change.
13. **In the meantime, provide the department/faculty with sufficient financial flexibility** such that the situation of turning down grants due to the inability to fund the shortfall does not arise.
14. **While mentorship** for pre-tenure faculty appears to be functioning well, we observed that newly promoted faculty did not have any mentorship on how to achieve the next level, or in general how to approach building their academic

career post-tenure. There also appeared to be a lack of commonly held understanding on expectations for promotion to the next level.

15. **Provide a one-course teaching relief** in the second or third year for pre-tenure faculty, to provide a boost in the run-up to the tenure review. Several pre-tenure faculty mentioned teaching as a burden, since they are expected to perform so much research on their own.
16. **Consider providing financial research support to pre-tenure** faculty. In the US system, Assistant Professors regularly have multiple PhD students in their research group, something that is prevented by the docent system. The workaround is co-advising of PhD students, which is then compromised by the lack of funding available to the pre-tenure faculty member.
17. **We recommend the various divisions examine their mix of publishing** in highly competitive top conferences and journals vs more specialised (but not quite as competitive) conferences, workshops, and journals. We believe that greater emphasis on top conferences and journals (with perhaps a little more focus on journals over conferences) is appropriate.
18. **Avoid putting too much store in bibliometrics.**
19. **Examine the workload and functions of the Head of Department.** As the department has grown in recent years, it appears that the management structure needs to be expanded to ensure the workload associated with the Head of Department position remains manageable.

MINOR RECOMMENDATIONS

20. **Add support for remote participation** in research presentations. Multiple people at Lindholmen mentioned that participating in research talks at the other campus was challenging due to transit time.
21. **Consider hiring professional grant writers** to assist faculty in the identification of funding opportunities, and in the preparation of large multi-institution grants.
22. **Examine the provision of PhD research classes.** Some PhD students we talked to were unhappy with the amount of PhD level classes available to them. However, it was unclear to us what the root cause of this perception was. We also recommend examining ways the department could encourage PhD student participation in research-focused “summer school” programmes.

23. Make sure that information on changes to regulations (written in Swedish) is made available to international PhD students in English in a timely manner.
24. Find mechanisms to provide expertise in conducting studies involving human participants (including qualitative analysis).
25. **Advertise posts** at ACM and CRA.

PART II
PANEL REPORTS

SAHLGRENSKA ACADEMY

SAHLGRENSKA ACADEMY

690	Introductory Remarks
690	Section A – Background and Research Standing
690	A1. Background
691	A2. Research standing
691	Section B – Leadership
691	B1. Leadership
693	B2. Recruitment
694	B3. Career structure
694	B4. Funding
695	B5. Feedback and evaluation
696	Section C – Complete Academic Environment
696	C1. Collaboration
697	C2. Relevance and impact on society
698	C3. Research-teaching linkages
699	Section D – Academic Culture
699	D1. Academic culture
700	D2. Publication strategy
700	D3. Facilities and research infrastructure
701	D4. Transverse perspectives
	(Sections E and F not included in this report)
702	Concluding Recommendations

INTRODUCTORY REMARKS

According to the instructions the primary purpose of the evaluation was to analyse preconditions, infrastructures and processes that form premises for high-impact research. The panel strived to identify strong and productive research milieus but also aspects of research environments that require development or reorganisation. In particular concerning structures that appeared functionally inadequate the panel has made recommendations to support procedures of improvements and strategic decisions.

The report is based on information presented in the self-evaluation document and on discussions during the site visit at Sahlgrenska Academy, April 4th 2019. The faculty was represented by:

Agneta Holmäng, Dean
 Henrik Hagberg, Pro-Dean
 Eric Hanse, Vice-Dean for Premises and Infrastructure
 Lena Carlsson-Ekander, Vice-Dean for Research
 Ann Wennerberg, Vice-Dean for Internationalisation
 Anna Karlsson-Bengtsson, Vice-Dean for Postgraduate Studies
 Per Karlsson, member of the Sahlgrenska University Hospital leadership.

Panellists:

Gunnar Andersson
 Leif Andersson, chair
 Vibeke Baelum
 Anna-Karin Dykes
 Hans Hultborn
 Jan Nilsson

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Sahlgrenska Academy (SA) is the largest faculty of the University of Gothenburg (UGOT) and consists of six institutes; the Institutes of Odontology, Health and Care Sciences (IHCS), Biomedicine, Neuroscience and Physiology, Medicine, Clinical Sciences, and a Core Facilities unit. SA also includes about 20 research centres, each one hosted by an institute. They form centres of excellence and are formed by researchers with common scientific interests. The Faculty Board, assembled according to the Rules of Procedures given by the Vice-Chancellor's office 2017-12-06, is the highest decision-making body responsible for education, research and collaboration with regional external actors in the field of health sciences.

SA is led by a Dean and a Pro-Dean. The Dean reports directly to the Vice-Chancellor of UGOT. Seven councils, (for Research, Postgraduate Studies, Education, Premises and Infrastructure, Internationalisation, Recruitment of Teachers, and Research Ethics) prepare matters for the Dean. The councils, except for Research Ethics and Recruitment of Teachers, are led by a Vice-Dean. The general organisation of SA is traditional and apparently well-functioning. Since creative research and education is carried out on department/institute levels, an important task for the faculty organisation is to facilitate open and efficient bi-directional communication between the leadership and the research units.

A2. Research standing

Many research groups at SA have gained an international reputation for research of highest quality. One of the main roles of the faculty leadership is to organise optimal conditions for research and education. SA also has a leading position in negotiations for the establishment of national and international research networks and consortia.

SA strives to support and deepen the translational research dimension by fully utilising new technologies, and through collaboration with other disciplines to facilitate discovery of disease mechanisms, development of treatments and implementation of new solutions in clinical settings.

The close partnership between SA, Sahlgrenska University Hospital, the Regional Health Service providers (Region Västra Götaland), including access to biobanks and large data bases, offers preconditions for ground-breaking research.

For more detailed comments on the diversified research conducted at SA the panel refers to the reports concerning individual institutes at SA.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Faculty leadership

During the site visit, the panel got a general impression of an estimable academic culture prevailing at SA. The leadership, headed by Dean Agneta Holmäng, is committed to the success of the faculty by focusing its efforts on building and maintaining academic environments of high quality. The leadership also actively facilitates the establishment of regional, national and international research networks. There are continuous and productive discussions between the Council of Departmental Chairs and the Faculty Board and meetings with external collaboration partners to discuss how to find new approaches to further strengthen research.

The initiatives taken by the leadership for sharing expertise with external partners as visiting / guest professors and adjunct professors diversifies the available scientific expertise in support of strategic decision-making.

The panel noticed that the bi-directional communication with UGOT management appeared sub-optimal. Furthermore, the interaction between the faculty and its institutes during the recruitment process could be improved. The faculty could also be more proactive in terms of identifying new funding opportunities.

Recommendations

- Facilitate contacts between research leaders by creating meeting arenas and supportive research platforms.
- Arrange workshops and seminars with invited distinguished national and international researchers.
- Initiate and organise fundraising activities with a focus on young researchers.

B1.2 University level leadership

The university level provides and maintains infrastructure and larger core facilities to support research at SA. The research also benefits from administrative support of some financial matters, including the Grants and Innovation Office for large external grants from e.g. ERC and NIH. The university is firm in negotiations with external stakeholders and is a strong partner in interactions with external actors like Chalmers University of Technology and industry. Decisions at the university level promote transdisciplinary research dependent on collaboration between several faculties.

The decisions made at university level, albeit in the best interest of most faculties, do not always meet the special requirements of SA. With its multifaceted interactions with the Sahlgrenska University Hospital and Region Västra Götaland, SA represents in many respects a special situation that may not always be fully perceived at the university leadership level.

Given that SA contributes to almost half of the UGOT research income it is disproportionately under-represented at the University Management Council. There are unnecessary overlapping activities between the university level and the SA administrative bodies in the management of research, education and infrastructure.

Recommendations

- More strategic decision-making power should be delegated from the university-level to SA since most decisions should be taken as close as possible to the operational level.
- A clearer definition of how administrative tasks should be shared between University and Faculty levels.
- Measures should be taken to generally advance the dialogue between the managements of UGOT and SA.

B2. Recruitment

Recruitment of creative and devoted scientists is decisive for the success of a research environment. Major efforts should therefore be focused on the recruitment procedures.

In addition to solid funding, an open and collaborative academic atmosphere with flexible access to high-standard core facilities are strong assets for recruitment of researchers. There are scientifically outstanding research groups at SA, both pre-clinical and clinical, that offer frontline research environments. Since SA is responsible for professional education in medicine, odontology and healthcare sciences, a comprehensive coverage of the teaching competence must be ensured. This may complicate recruitment procedures and limit the possibilities for international recruitments.

The panel appreciated several commendatory features in the recruitment practice. These include financial support in the form of start-up grants for researchers recruited at different stages of their careers. These increase the attractiveness of positions and promote rapid establishment in a new research environment. The support for visiting professors to stimulate time-limited exchange of highly qualified researchers is a commendable arrangement.

Following the recommendations from RED10, SA has increased external recruitment. The favouring of young PIs with international research experience is commendable. In comparison with domestically trained researchers, they have frequently acquired more diversified scientific experience and contribute to international networking through their established contacts.

The panel also recognised some inadequacies in the recruitment practice. The appointment procedures for professor/senior scientist positions are too tedious. This may at its worst lead to loss of initially interested applicants to competing research environments.

Despite improvements following the recommendations in RED10, there is still overrepresentation of local recruitments.

Recommendations

- Postdoctoral and higher research positions should primarily be filled by international calls.
- Measures should be taken to speed up recruitment processes including the preselection of applicants by a search committee.
- Internal promotion of senior lecturers to professors should be avoided or used only in exceptional situations since it lowers mobility and may result in scientific inbreeding.

B3. Career structure

From the individual's point of view SA offers well-structured and foreseeable career paths: two years in a postdoctoral position within two years post-PhD degree, advancement to associate senior lecturer within five years after dissertation with a right to be evaluated for promotion to senior lecturer and eventually professor. This arrangement, corresponding to tenure-track employment, secures a permanent job at an early stage for young researchers.

There are however serious in-built problems with the outlined career paths. These are ultimately due to the fact that top-science is not a "democratic" business. Its meritocratic and competitive nature is frequently in conflict with the social security of an individual researcher.

Early permanent employment of still relatively inexperienced researchers on a limited number of available positions congeals the research environment by retarding mobility and scientific renewal. Senior positions that could be used to engage excellent external researchers may be blocked by less qualified internal candidates.

Physicians and dentists with profound clinical knowledge in combination with solid scientific training are key actors in successful translational research. Well-structured and attractive career paths for clinical researchers are therefore of particular importance. The teaching assistant programme, with co-funding from the ALF system, is a commendable initiative for raising interest among medical students in a career as a clinical researcher. A similar amanuensis programme exists for dental, dental hygienist and dental technician students. The time-limited ALF career grants liberate clinicians for 50% research engagement but do not compensate for permanent positions as clinical researchers. There is also a need to ensure that faculty- and university indicators for research quality are relevant for the research conducted at IHCS.

Recommendations

- Implementation of strict, regular scientific evaluation by external assessors if researchers are enrolled in the postdoc-associate senior lecturer programme.
- Invent parallel tracks for underperforming researchers to liberate positions for new recruitments.
- Establish "core-researcher" positions for scientists not aiming at professorship but mastering special skills commonly needed in the research environments.
- Define more solid structures of career development for clinical researchers.

B4. Funding

The overall financial situation of SA is solid. Most of the governmental funding is allocated by the university based on historical data. In addition, a smaller proportion is distributed based on performance-based measures defined as ability to attract external grants and impact of publications. The high-quality research conducted at SA has enabled PIs to successfully compete for large external grants. Hence, 65% of the research is funded by external grants and 35% by governmental block grants.

SA has been able to increase the proportion of funding directly to the institutes. There is also an asset of accumulated funds to be used for smoothening of unforeseen fluctuations in external financial support.

The panel has noticed, however, that the future economic situation will be challenging as SA is continuously growing and employee numbers are increasing. In addition to direct funding for each faculty, part of the UGOT governmental funds is allocated to strategic research initiatives such as UGOT Challenges, the Wallenberg Centre for Molecular and Translational Medicine, and co-financing of infrastructure. The relatively short financial terms favour research on “secure” themes over long-term, high-risk, high-gain projects.

Recommendations

- Make strategic plans to prioritise investment on the faculty level.
- Improve cooperation between the SA management and the institute managements to create the most efficient spending of governmental funding.

B5. Feedback and evaluation

The panel learned that SA maintains a modest attitude towards feedback and evaluation of individual groups and individual researchers, for whom such a programme would seem mandatory. The limited feedback and evaluation that does exist, however, provides individual research groups with the freedom to make their own decisions regarding research priorities based on their own ideas and innovations, without top-down interference.

SA nonetheless runs continuous bibliometric follow-up of all scientific publications, total numbers of PhD exams and external grants. In particular, the ability to repeatedly secure major grants in international competition is considered a signature of scientific excellence.

With the limited formal feedback from SA to departments/institutes on research performance, it is difficult to identify and promote outstanding research groups and/or help research groups with specific needs. This is partially due to insufficient communication between individual research groups/departments/institutes and the SA leadership.

Recommendations

- Systematic support and coaching of research groups in writing applications for larger international grants.
- A more systematic follow-up by the faculty, together with each institute, could serve as a basis for important strategic decisions.
- Hiring of additional research advisors could help to identify excellent research groups and increase the capacity to support larger grant applications to EU, NIH and other international and national funding bodies.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

The panel found that SA is actively engaged in several national and international collaborative projects aimed at the maintenance and development of successful research and education. SA collaborates on the national level with all other national faculties of medicine and has a tradition of strong connection to Lund University. The rapid technological development in medicine makes the already well-established collaboration with Chalmers increasingly important, in particular concerning digital health and AI. In odontology, research collaboration in clinical areas is somewhat hampered by the different financial models (TUA or no-TUA) prevailing in the Swedish institutes of dentistry.

The Wallenberg Centre of Molecular and Translational Medicine (WCMTM) was established in 2015 as a joint venture financed by the Knut and Alice Wallenberg Foundation, UGOT, Region Västra Götaland and AstraZeneca. For reasons that have remained elusive to the panel, WCMTM is directly subordinated by the UOGT leadership and is not affiliated to SA, which with its identical research activities and educational goals, would be a natural partner offering both intellectual and material synergy advantages.

Numerous formal and at least bi-lateral collaboration agreements with international universities and research environments are listed. These agreements, with about 70 universities world-wide in total, require updating and renewal in order to confirm that they are active and in accordance with the strategical vision of UGOT and SA. Research courses in collaboration with other universities are infrequently organised and there are insufficient financial resources to support international PhD and postdoc exchange.

Recommendations

- Development of an external web page to reach potential international research students.
- Conduct continuous updating of real collaboration activities and perform cost-benefit evaluations of the different projects.

C1.2 Collaboration with external stakeholders

It is the impression of the panel that the collaboration between Sahlgrenska Academy, the Sahlgrenska Hospital, and other healthcare providers within the Västra Götaland Region, are well established and characterised by mutual trust and understanding of the needs of the respective parties. In spite of this, it is clear that the needs of the daily healthcare service often take priority over research. SA carries responsibility for establishing a more academic culture within the entire university healthcare system, and for engaging healthcare staff in research to pro-

mote the quality of care provided by their own clinical departments. This will also require significant changes in healthcare management beyond the responsibilities of the university. The panel recommend the faculty to engage in discussions with the Västra Götaland Region on how this can be achieved. Ideas of how this can be implemented can be found in the following proposal for a more structured approach to healthcare that uses research to improve the quality of clinical care: “Kunskapslösningen”, put forward by the Swedish Academy of Science and the Swedish Society of Physicians, and which can be downloaded at: <https://www.sls.se/globalassets/sls/dokument/kunskapslosningen-2018.pdf>

SA has a strong tradition of collaboration with pharmaceutical companies and the Knut and Alice Wallenberg Foundation, which is an important co-founder of the Wallenberg Centre for Molecular and Translational Medicine. Many faculty members are also employed as clinicians at Sahlgrenska University Hospital or in public dental care through joint or adjunct positions. This facilitates a natural contact between SA and the surrounding society, which benefits high-quality clinical research. The coordination of these collaborations appears somewhat fragmented, however.

Recommendations

- Improved transparency of ongoing collaborations would aid strategic decisions and planning of faculty initiatives.

C2. Relevance and impact on society

C2.1 Management and support

There is likely to be an increasing demand for research on implementation in the years to come and this will most likely also lead to new funding possibilities. It is also an excellent area for collaboration with healthcare and more widely with society at large. As part of this work, it will also be important to increase the involvement of external stakeholders, such as patients and their relatives plus civil society in general, in order for researchers to make new knowledge available for the public in various forms.

Recommendations

- The support structure for innovation and technology transfer at the university level is fragmented and should be reorganised into a more user-friendly “one door” approach. SA should work to influence the university management in this direction.
- Since active communication with the surrounding society has a great impact on the attitudes and goodwill towards SA, and ultimately also on the general willingness to spend public resources, the establishment of a professional PR position should be considered.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

The various curricula mainly aimed at professional competence appear well organised. The engagement of younger PIs in teaching facilitates early contact between undergraduate students and active researchers.

A challenge for continued quality and quantity of research conducted at both the Institute of Health and Care Sciences (IHCS) and the Institute of Odontology is the tension between the heavy demands of undergraduate education and the ability of staff to deliver on the research agenda. In the IHCS there is also a shortage of teachers with broad experience. Recruitment is mainly based on requirements for research projects in different departments. This can result in a narrower competence than is wanted or needed for teaching undergraduate and master's students. The increased teaching burden since RED10 at both the IHCS and the Institute of Odontology has meant that even when external research funding is successfully procured, it is difficult to free protected time to deliver the research.

Recommendations

- The merit value of engaged teaching (based on feedback from the students) should be increased.
- Experienced professors and PIs should fulfil their teaching obligations.

C3.2 Doctoral education

The panel appreciated that PhD education, with half-time assessment and mandatory courses, is generally well organised. SA offers PhD education in five major areas: Medical Science, Odontological Science, Health Care Science, Pharmaceutical Science and Basic Medical Science. The faculty's 60 % funding of 21 pre-clinical full-time PhD positions annually makes them attractive positions, resulting in the recruitment of competent PhD students. The recruitment of collaboration/clinical PhD candidates within Region Västra Götaland healthcare is substantial and takes place on a continuous basis. Since these PhD students are frequently engaged in clinical training, their PhD education is done part-time with financial support from ALF, FoU or research grants. SA oversees graduate training of clinically affiliated PhD students. The "amanuensis programme" allows for some teaching activity and "summer research activity", which gives PhD candidates the opportunity to get acquainted with research activities – and mentors – before their official registration as PhD students.

The panel noticed some dilemmas. Selection of PhD students is done by the researcher/supervisor who announces the position. This sometimes results in less successful recruitments that may cause problems in the supervisor-PhD student relationship. Combined with the increased costs for PhD education, these issues make supervisors reluctant to take on new PhD students, especially when the position is to be 100% financed by the supervisor's external research grants. The non-competitive selection of collaboration PhD students sometimes leads to unengaged PhD students who do not finish their studies in time or at all.

When the economic situation in the healthcare system is pressing it impedes the possibility for collaboration PhD students to find time allocated for research education. A general problem is the declining interest in an academic career among clinical physicians and dentists.

Recommendations

- Strategic decisions at the faculty level should be taken regarding the total volume of future doctoral education. The emphasis should be on educating researchers rather than on producing PhDs.
- Develop a recruitment tool box to support supervisors when selecting applicants to PhD student positions.
- Introduction of a licentiate thesis as a part of the education may provide a natural exit for students who do not want to continue their education to a full PhD exam.
- The restriction put on universities by the government with regards to trial employment before full registration needs to be discussed on a national level.
- The allocated research time for collaboration PhD students, which is regulated by a mutual agreement between UGOT and Region Västra Götaland, needs continuous monitoring.
- A parallel track should be invented for PhD students who actually turn out to be unengaged.
- Establishment of a combined MD/PhD education track like e.g. at Karolinska Institute or at Helsinki University Medical Faculty, or the model employed at Oslo University, could be considered.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

The panel appreciated the inclusive engagement of all personnel in academic activities via seminars and meetings, together with the translational interaction between SA, Sahlgrenska Hospital and the healthcare providers in the Västra Götaland region. SA hosts several centres of excellence that maintain an atmosphere of the highest scientific ambition levels, with internationally renowned scientists serving as models for younger researchers.

However, the thematically diversified activities lead to considerable variations in engagement in seminars and scientific meetings. The reluctance, in particular among younger investigators, to attend seminars that do not deal exactly with their own field of interest is a well-known phenomenon. PhD students and younger PIs, in particular, are not regularly engaged in seminars, which should be fundamental in flourishing academic environments. The declining interest and engagement in academic activities in the hospital is a challenge for SA. This was particularly evident in the larger institutes that cover departments from basic science to clinical science.

Recommendations

- Seminars given by highly qualified researchers are important components of general scientific education in particular for PhD students. Implementation of a system where PhD students collect credits for their exam by attending seminars would undoubtedly expand the audience.

D2. Publication strategy

SA encourages publication in both high-profile journals and in journals that publish high-quality research in specific subject areas, and prioritises quality over quantity. A combination of spearhead research and a broad range of research in different areas maintains a high standard of both teaching and clinical competence.

Based on an EU directive, the Swedish government has decided that Open Science should be implemented in Sweden by 2025. Open Science includes a number of different but overlapping areas such as open access to scientific information (both publications and research data); open educational resources; open source code; alternative ways to measure scientific influence; open peer review; and citizen science. SA needs to start working on a strategy for this transition.

D3. Facilities and research infrastructure

Convenient access to well-functioning core facilities with up-to-date services and equipment is a strong advantage in competition for top researchers. SA should therefore put much attention on keeping the core facilities in excellent condition. Some core facility platforms are nodes in national infrastructure networks. The general competence level of the core facility personnel is high, e.g. two thirds of the staff at SAMBIO hold a PhD. The staff at the animal facility (EBM) are continuously enrolled on development and educational programmes. The utilisation of Core Facilities has been high over the last few years.

The panel identified some problems: There is limited coordination of smaller infrastructures at the research group level. There are also currently few possibilities for researchers to apply for small and medium-sized infrastructures. Not all of the current facilities meet today's needs. Some premises are non-functional and too small. At the EBM, the rodent housing capacity is too low, with a yearly increased demand of ~10% for small animal facilities. There is a relative lack of research infrastructure specifically tailored to meet the particular needs of IHCS. This includes the wide variety of methodological expertise needed, as well as relevant, accessible and specific support from existing university-wide offices.

Although the qualification level of personnel is generally high at Core Facilities, there is no clear career plan for employees. This impedes recruitment of top-level staff and reduces the ability to retain highly-qualified personnel. While it is often possible to acquire funding for new equipment from external sources, these funding agencies normally do not fund maintenance/service, leading to costs that are too high to be covered by user fees. The national SciLife lab facilities appear too Stockholm-centric.

Recommendations

- Develop career paths for Core Facilities personnel, in collaboration with University Management.
- Establish online real-time inventories of available equipment and instruments to coordinate collaboration and to increase the utilisation rates of local infrastructures.
- Negotiate long-term operational support from University Management for heavier core facilities.
- Focus on improving regional collaborations with external stakeholders like AstraZeneca to increase co-financing and co-utilisation of equipment/methods/facilities.
- EBM facility – and its rodent housing capacity – needs to be solved soon as it is very important for several projects and for external recruitment.
- SA building plans should be decided soon; uncertainty about the future location of the Institute of Odontology may halt all attempts to plan for the future.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

The gender balance, at least among younger scientists, is good. The strategic initiatives taken to recruit younger researchers has resulted in an almost equal distribution between men and women. But there is still a male dominance among the professors.

Recommendations

- Documented experience, educational skill and scientific excellence, regardless of gender, should remain main criteria for recruitment of senior researchers.

D4.2 Internationalisation

Regarding internationalisation of young researchers, the panel recognises that changes in society and lifestyle have made mobility in its traditional sense less attractive. The panel encourages SA, as well as University Management, to find novel ways of encouraging mobility that vitalize science, for example by pursuing a postdoctoral fellowship in a different faculty or a different research field. Both the Sahlgrenska International Starting Grant programme and the postdoc programme are steps in this direction.

SA should ensure that young scientists are well informed about these programmes and assist in making them available for young scientists with more restricted budgets. SA should also stimulate the mobility of young scientists, for example by helping them to find postdoctoral positions in high-quality research groups outside of Sweden.

Recommendations

- Information regarding the extent of international exchange of students, as well as the international mobility of PhD students and postdoctoral researchers, should be kept up-to-date.

- More pertinent information is needed on the SA/UGOT website about PhD programmes available at SA, in order to improve international visibility.
- Simplify bureaucracy regarding international mobility to further increase internationalisation, in particular for students aiming for a double PhD degree.
- Reduce the barriers to internationalisation by arranging e.g. language courses and spouse programmes for incoming researchers.

CONCLUDING RECOMMENDATIONS

The panel is left with the impression that SA is a well-managed faculty with a devoted leadership that stands for high-quality output of research and education. The operational environment – spanning large contact areas with Sahlgrenska University Hospital and Region Västra Götaland, including responsibility for the professional education of healthcare personnel – makes the situation of SA special in comparison to other faculties at UGOT. The ongoing decentralisation of healthcare services will also entail more challenges for translational research and education.

Since increasing bureaucracy is a general threat to translational research, the panel recommends that all possible measures should be taken to disentangle the access to biobanks, databases and patient materials.

Since the competition for public research resources is becoming even tougher, the panel recommends actively seeking greater collaboration with potential external research funders.

INSTITUTE OF BIOMEDICINE

704	Introductory Remarks
704	Section A – Background and Research Standing
704	A1. Background
707	A2. Research standing
709	Section B – Leadership
709	B1. Leadership
710	B2. Recruitment and B3. Career structure
713	B4. Funding
714	B5. Feedback and evaluation
714	Section C – Complete Academic Environment
714	C1. Collaboration
714	C2. Relevance and impact on society
715	C3. Research-teaching linkages
715	Section D – Academic Culture
715	D1. Academic culture
716	D2. Publication
716	D3. Facilities and research infrastructure
716	D4. Transverse perspectives
717	Section E – Support
717	E1. Internal research support
717	E2. Faculty and University-wide support
718	Section F – Other Matters
718	F1. RED10 evaluation
718	F2. Other matters
718	Concluding Recommendations

INTRODUCTORY REMARKS

Panelists:

Leif Andersson, chair

Maria Fällman

Risto Renkonen

Kjetil Tasken

Sabine Tejpar

The evaluation of the Institute of Biomedicine was divided into two parts: Biomedicine 1 and Biomedicine 2, where the former corresponds to the Department of Infectious Diseases and the Department of Microbiology and Immunology, and the latter to the Department of Laboratory medicine (former Department of Pathology and Genetics and the Department of Clinical Chemistry and Transfusion Medicine) and the Department of Medical Biochemistry and Cell Biology. A third panel was going to review the Sahlgrenska Cancer Center, which is hosted by the Institute of Biomedicine. However, during the visit, it was agreed that Sahlgrenska Cancer Center should be evaluated together with Biomedicine 2. While this subdivision was useful for conducting the site visit in a timely manner, the panel is instructed to deliver an aggregated report on the Institute of Biomedicine as a single unit which also includes the Sahlgrenska Cancer Center. The report therefore has comments pertaining to different departments, but is aggregated to an overall report for the whole institute.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Organisation

The Institute of Biomedicine is divided into four departments:

- Department of Infectious Diseases;
- Department of Microbiology and Immunology;
- Department of Laboratory Medicine;
- Department of Medical Biochemistry and Cell Biology.

The Department of Infectious Diseases and the Department of Laboratory Medicine are clinical departments whereas the Department of Microbiology and Immunology and the Department of Medical Biochemistry and Cell Biology are more oriented towards basic science. The Department of Laboratory Medicine is a new constellation since January 2019 and is the result of merging two previous departments, the Department of Pathology and Genetics and the Department of

Clinical Chemistry and Transfusion Medicine. This was part of an ambition to focus the research. Following a recommendation in RED10, the institute reduced the number of departments from six to four.

Executive steering group of the institute: The institute is headed by Professor Sven Enerbäck, with Professor Marianne Quiding-Järbrink as Deputy Head. In addition to the Head and Deputy Head of Institute, the executive steering group includes two Assistant Deputy Heads, Claes Gustafsson, responsible for research and Magnus Braide, responsible for teaching, and Chatrine Butler, Head of Administration as well as Niclas Lundh, Administrative Coordinator. The steering group meets every week to deal with everyday questions related to economy and human resources.

The management group consists of the executive steering group extended by the four department heads. This group meets monthly to coordinate work within the institute and to disseminate information and discuss matters relevant for the individual departments and upcoming issues concerning the institute.

Institute Board: This board, which functions as an advisory board for the institute head, consists of representatives from different personnel categories (five teachers, two technical and administrative staff, and a student representative). The other members of the management, together with representatives from the Trade Unions and Future Faculty, are also invited to meetings. The Institute Board meets approximately five times a year and consists of representatives from different personnel categories.

Department heads: Each department is led by a Head of Department.

Institute interaction with faculty and university level: The faculty management, under leadership of the Dean, meets regularly with institute heads. The relations with the faculty management appears to be good, the institute leadership members find that they can address issues concerning research or other business and also influence central decisions. They also appreciate that the faculty and university levels allow freedom in academic leadership and respect their work in developing the scientific environment at the institute with a focus on excellence and academic freedom.

Panel comments

The research topics investigated at the institute are very broad and can appear as non-focused. This was highlighted in RED10 and there have been some efforts to focus on specific areas, as described by the management. This is presented as four main focus areas within the institute: “Infection and Immunology”, “Cancer and Stem Cell Biology”, “Genetics and Molecular Medicine” and “Cell and Molecular Biology, including Glycobiology”. The panel does not, however, see this as a focus of the research at the institute; the areas are all very broad and together they can include nearly all types of research. The “Stanford strategy” to

focus on excellence in a wide variety of scientific questions with some common interests and complementarity is used by many successful academic institutions world-wide and the panel did not perceive the broad scope as a major problem as the institute appears to successfully foster excellence in research. Despite this, there may be opportunities missed for coordination, collaboration and cohesion within this model. Weaker groups and young PIs may be less well taken care of in such an environment.

The general impression from the interviews was that the executive steering group was well functioning as a group with very open communication, where all participants feel involved in the decision-making process and share responsibilities in making and executing decisions.

There are notes taken from these meetings, in order to keep track of different current issues. These notes are regarded as working material and are therefore not made public. However, while information seems to circulate well within the steering group, the mechanism for dissemination of information to department heads or to people at the departmental level appear to be less efficient. Lack of information and an apparent lack of possibilities for involvement and for having influence was a recurrent theme in many of the meetings the panel had and at all levels.

There seemed to be no or very little discussion and awareness regarding institute strategies at the departmental level. There were clear signals that the transparency regarding ongoing discussions and decision-making was considered low, for example with respect to decisions regarding recruitment and strategic plans for the future. Another issue raised, which might partly contribute to the observed feeling of not taking part in planning future directions, was the composition of the executive steering group, where three out of four in the academic leadership are affiliated to the Department of Medical Biochemistry and Cell Biology. It was also obvious that the PIs at the different departments had little knowledge of ongoing strategic discussions at the institute level, and the gap was even larger for the faculty/university level.

The panel can understand that certain decisions, for example about new hires, are complex and involve present and expected future teaching needs, upcoming retirements etc. However, despite this, the panel would recommend efforts to improve the communication from the institute to the departmental level, even just about the decision process and any uncertainties. This could already clarify a lot and likely also create more understanding for the complexity. In addition to including the department heads in strategic discussions, departmental-wide information from the executive steering group would also be desirable in order to avoid inconsistent information/interpretation from different levels. Such information meetings would also contribute to reducing the gap between the PI level and the institute leadership. Except the SCC and the Department of Microbiology and Immunology, the departments in the institute do not appear to have PI meetings on a regular basis.

The role for departmental heads does not appear very attractive. There appears to be no extra funding to be used by the heads. One major task is to distribute teaching, which is important, but there are also other less advanced tasks that is put on the heads, such as handling technical equipment and other general duties associated with running daily work, as well as taking care of upcoming practical questions.

Recommendations

- Involve departmental heads more in strategic discussions.
- Improve communication to the departments about ongoing issues, directly from the institute leadership, not only via the departmental heads and also directly to the faculty members.
- Start regular faculty member / PI meetings at the institute level.

A2. Research standing

Although this evaluation does not focus on the research quality *per se*, the panel can conclude that the standard of research output is high. Researchers at the institute publish regularly as corresponding authors of high-impact papers in internationally-leading journals, and are highly competitive in receiving external funding. Several prestigious national and international grants have been awarded to researchers within the institute.

A lot of the research at the Department of Infectious Diseases and Department of Microbiology and Immunology is in some aspects connected to the areas of vaccine and mucosa biology and immunity, also in relation to cancer, as well as research about biomarkers and also rather new research topics, including pioneering research on new bacterial species. In the vaccine area many of the strong profiles are past or close to retirement.

The Department of Medical Biochemistry and Cell Biology is a strong department with excellent standing in research on metabolism and mitochondria, cancer cells signalling, glycobiology and mucosal biology. The Department of Laboratory Medicine is more diverse in research topics and standing.

Another sign of the academic standing is the relatively high number of researchers that are members of the Swedish Royal Academy of Sciences, and this does not only include researchers that are close to retirement, but also newly-recruited group leaders are represented.

Hosted centres

CARe (Centre for Antibiotic Resistance Research at the University of Gothenburg)

The new multidisciplinary CARe centre was a timely strategic initiative that has developed very successfully, reaching international and national recognition on many levels. The localisation at the Department of Infectious Diseases appears ideal with regard to the topic and the closeness to CCUG (Culture Collection of the University of Gothenburg), which should provide unique opportunities for

antimicrobial research. Research within antibiotic resistance has been boosted due to the recruitment of Joakim Larsson and the establishment of CARE. As CARE is translational, spanning several faculties (medicine, natural science, economics, and humanities), this research milieu has proved beneficial for networking that leads to new ideas.

The Sahlgrenska Cancer Center (SCC)

This center was founded in 2010 and first headed by Göran Stenman. It is a centre for translational cancer research hosted by the Institute of Biomedicine. SCC is a cross-departmental construct and matrix organisation that includes about 20 research groups from 12 departments affiliated to the Institutes of Biomedicine, Clinical Sciences and Medicine. Yet some of the most high-profile cancer researchers in the institute are not working in SCC. Most of the PIs have clinical affiliations and many members of the research groups are clinicians active at Sahlgrenska University Hospital. Reporting for the SCC with respect to publication output appears problematic as they may or may not be listed on papers as an adjunct affiliation, thus resulting in a seemingly lower productivity than what may actually be the case. SCC offers access to biobanks in a large variety of tumour material and manages the PDX-biobank at the animal facility that is the largest collection of humanised and personalised mouse cancer models in Sweden.

SCC functions well as a virtual construction. It serves as a cohesive effort in translational cancer research and provides space and access to instrumentation and technology that has been valuable, particularly for new and smaller groups. It remained unclear to the panel on what basis research groups are selected to the centre. There are groups doing cutting-edge translational cancer research at other departments in the institute, which are not included in SCC. Inclusion of these research groups would increase the critical mass at SCC, unless currently available laboratory space forms a limiting factor.

There are however threats for the SCC. It remained unclear what the medium- and long-term vision is. SCC does not appear to go into research areas such as precision cancer medicine and immune oncology in a coordinated fashion. A strategy for developing relations to industry or for innovations was not apparent. The big grant that offered a dedicated budget (BioCARE) is terminated and co-funding from the Vice-Chancellor has decreased annually over the past few years. Without solid core funding, investment in disruptive cancer research-related technology will be on the wane and the bench-fees raised to levels unaffordable for many groups.

The panel recommends discussions between the leaderships of Biomedicine, Sahlgrenska Academy and UOGT to reach strategic decisions on how to secure continuation of the successful translational cancer research at SCC.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

The strategy for developing a strong research environment at the institute very much builds on attracting the best possible candidate for any given position and providing them with good opportunities to perform their research. The aim is a flat organisation with many strong, independent research groups working on different scientific questions, but also with some common interests and complementarity, which is believed to promote fruitful collaborations contributing to scientific renewal. All research initiatives are expected to come from the research groups, the leadership does not deal with developing new research initiatives. Although striving for excellence in research, teaching is an important matter at the institute, and all researchers are involved in teaching. The flat organisation is expected to provide stability by not being linked to single individuals, and is also believed to promote creativity, with individual group leaders who are free to think for themselves. This type of strong creative research environment is also expected to increase the attractiveness of the institute as a place for other researchers to situate their research, which facilitates future top recruitments, and contributes to excellence and scientific renewal by bringing in new ideas and techniques to the institute.

Today, a variety of research topics are investigated at the institute, spanning from basic biological research to advanced translational research embedded in clinical investigations. The breadth of topics displayed is partly a consequence of associated teaching missions that demand expert knowledge covering many scientific areas. As a consequence, this does not allow the specialisation and scientific focus that can be seen in certain scientific institutions.

The institute intends to recruit a number of new staff members over the next few years at all different levels, due to both increased economy and the retirement of a number of PIs. As much as 10 new full professors are planned to be recruited in the next five years. There are also plans to launch a programme for the recruitment of young scientists. Regarding research, there are ambitions to strengthen translational research at the institute.

Panel comments

From the beginning, most of the panel members questioned the lack of research focus at the institute, however, after the interview sessions the panel agrees that what appears from outside as a “non-strategy”, indeed is a strategy that seems to work, at least in fostering excellence. The clear focus on developing a strong research environment that is competitive in the international arena was repeatedly explained to the panel in different ways. The institute has been successful in recruiting strong researchers both at senior and junior levels. This seems to have paid off well, the external funding received in national and international competition

has increased substantially. The leadership also noted an increased interest from young scientists to locate at the institute, which is a promising sign. The broadness regarding research areas can indeed be challenging and cause obstacles regarding the strive for an interactive and creative research environment.

There is an ongoing and quite substantive generation shift at the institute, where strong researchers who have had very big groups are about to retire, for example in the areas of vaccinology, and adjuvance research and in mucosal biology, which have all been internationally-recognised with high impact – the panel has some concerns about how this is planned to be handled in future. However, it was shown that other researchers at the department who are working on related topics ensure the succession and contribute to further development of the research area of mucosal regulation and immunity. The institute leadership was clearly aware of this, and explained a clear opinion about their view, which prioritised renewal over conservation.

The ambition to increase the possibilities for high-quality translational research is appreciated, but there were only vague plans for how this was to be implemented. This will require some actions to “open up” between departments to increase the interaction between researchers. The panel also understood that the clinical units might move to a new building in the future, which can be an excellent opportunity for increased interactions, but again, interaction between clinical departments and non-clinical departments also needs to be increased.

B1.2 Faculty/University level leadership

The panel has not separately addressed this question.

B2. Recruitment and B3. Career Structure

For upcoming recruitments, the same strategy as before with broad and open calls for the positions will be employed. This means that internal people have to apply via these competitive calls, there is no other way to be promoted than through this selection. As mentioned, at least 10 new, full professors are planned to be recruited, and the aim is to find the best researchers who are also good teachers. The recruitment process aligns with the standard in Swedish academia, and involves an external evaluation of the applicants’ research and teaching merits. Interviews are also held, and are an important part in ensuring that the candidate is a good fit and that they have the ability to both contribute to and also benefit from the environment at the institute.

So far there have not been any open calls to recruit young scientists to the institute; several new group leaders who have started at the institute have come with their own salary. Several new group leaders have recently started at the institute this way. There are several sources for this funding available in Sweden today, and the institute supports applicants who they find suitable for the institute and competitive enough in the application process. It is also possible to get co-funding from the university for those who receive establishment grants from the Swedish

Research Council (VR), and here the institute also adds support by paying two years' salary on top of the four years covered by the grant. After this time, usually 9–11 years post-PhD, researchers are expected to be competitive in open calls for senior positions. The institute has recruited a large number of early-career scientists this way, many of whom have recently started establishing research groups. Their salaries are paid by external resources, such as VR or the Wallenberg Centre for Molecular and Translational Medicine.

At the national level, however, there is also a new mechanism of regular open calls for tenure-track positions for young scientists. This is an opportunity to further increase chances to pick the best possible candidates for the research environment. The decision on tenure for this type of position, "*biträdande lektor*", comes quite early and as the tenure track system is very recently implemented in Sweden, there are several question marks about how this type of employment will work in reality, which the institute leadership are aware of. One is that the candidate cannot have a PhD older than five years, and also that the processes for evaluation and eventual termination are still unclear. At present, the institute has therefore chosen not to make use of this mechanism and does not have a strategy for how to use it.

Panel comments

The institute leadership has clear metrics to drive new hires, which are presented for the panel in a consistent way. We can see the complexity of the work on planning new recruitments, aligning with the different teaching needs combined with the thrive for excellence. The majority of newly-recruited senior and junior scientists are external, which is very positive, since it will ensure renewal of research at the institute. It was however noted that many of the recruited young researchers completed their PhD at Sahlgrenska Academy, but had then been away for some years for a postdoc.

The recruitment system of open competitive calls seems to have worked well so far, and has led to a variety of research topics present at the institute. However, this breadth can present a challenge for the work on developing the research environment. Heterogeneity may complicate the prioritising of next investment in core platforms and at its worst can even weaken the centre in a rapidly evolving scientific landscape.

The institute seems to manage the long-term budget and has a good mastery of the complex metrics that will affect their budget. The willingness to develop the curriculum and participate more in integrating teaching for medical students appeared low for the same reasons. It is clear that the institute leadership is aware of the limited opportunities this creates for young internal PIs who have to compete with senior external candidates, but this is a clear policy of the institute. This naturally creates a lot of anxiety for young scientists in non-tenured positions, but since the institute cannot permanently employ every young group leader, this is unavoidable, and necessary for maintaining the high level of excellence. There is, however, no structured system for progress evaluation of young scientists, which

would be especially important not only for the current non-tenured group leaders, but also for the planned new tenure-track positions (discussed below).

The panel can understand the reluctance to advertise “*biträdande lektorat*”, since it is challenging to identify star researchers already five years post-PhD and it is out of step with international practice. This seems very early compared to international standards for these types of positions. The panel have also learnt that the Swedish employment system is rigid in the sense that it can be difficult to terminate an employment. The panel finds it important that before starting the use of such a tenure-track system, that the faculty implement a transparent and efficient system for hiring to these positions, setting out clear criteria for tenure, following-up (mentoring, enabling strategies) in a transparent system that is clear for both the employee and for the institute leaderships. It is important to handle this strictly and consistently to ensure fair and equal treatment of the candidates up for tenure. To ensure the influx of new competence and experiences it is important to ensure that the number of such positions (*biträdande lektorat*) is balanced against, and does not replace, open calls for senior scientists.

From the interviews with the young researcher leaders it became clear that a more structured mentorship system would be desirable. As it is now, the amount of mentoring received differs a lot from person to person. Extra help for non-Swedish PIs to understand the Swedish system was pointed out as important. The panel also notes that there is no structured system for selecting PhD students to be admitted and that the young group leaders handle this by themselves. The panel understands that there are courses in scientific leadership at the university/faculty level that have been offered to some young group leaders, which have been very good and cover many important aspects of being a research leader, including the recruitment of group members; however, it was not clear to all young group leaders that these existed.

Given the strict system of having no other way of gaining a senior position other than via open competitive calls, it is very important to have clear communication about this. Optimal career development should still be addressed, both to increase the chance of tenure for some, and to maximise career outflow capacities for others. Junior leaders clearly get opportunities for high-impact publications through the opportunities offered by the institute, such as access to unique core facilities and interactions with excellent scientists, and some topical nodes. Are there ways to improve this, so that a stay at University of Gothenburg (UGOT), even temporarily, is a major step forward in a career, even more than it is now? Structural collaborations after leaving, partial appointments?

Most of the postdocs appeared to appreciate the environment and many of them were very positive regarding the possibilities for teaching. For PhD students, there were complaints about the compulsory course package, which was perceived as less good, both regarding its content and that it was often not possible to take the introductory part upon the start of the PhD, but instead at a later time point, when

that type of training had already happened locally and informally. This was also emphasised by the supervisors of PhD students. A more flexible system in concert with the aims of individual study plans should be developed. There are several funding schemes for MDs to PhDs which appear to function well. UGOT does not, however, have a MD/PhD track for early recruitment of medical students to research.

Recommendations

- Continue the strategy of open calls for all positions.
- Put efforts into offering good opportunities for top-level research to young researchers.
- Offer courses in scientific leadership to all new young group leaders.
- Clearly communicate criteria for promotion and qualification requirements for senior positions.
- Implement a mentorship programme for young research leaders as well as a structured system for evaluation of their progress.
- Implement a transparent and efficient system for handling “*biträdande lektorat*” at the faculty level.
- At the institute level it will be important to implement a flexible system for future recruitment, reaching a balance of promoted lecturers and externally-recruited senior researchers.
- Implement a system for selection of PhD students to be registered with a systematic procedure, where one part involves several PIs assisting in the evaluation of candidates to ensure that the most talented students are selected.
- Look over and modify the course package for PhD students, create a package that is more flexible and adapted to the individual students.

B4. Funding

The funding situation at the Institute of Biomedicine is currently very good, there has been a strong growth in external funding over the last eight years. This is paralleled by increased support from the government to the national research system, but UGOT and the institute appears to collect a competitive share of this increase. The institute pays full salary and rent for office space for all permanently employed professors and associate professors, and salary costs for PhD students are subsidised by 40%. There is no other direct research money distributed, the scientists are expected to compete for external money for their research. The OH cost is kept very low. There are also possibilities to apply for additional funding for PhD students from the faculty. From the university level, there is a kick-back system providing 25% additional support for certain large competitive grants to cover OH costs, and to support younger scientists, and certain prestigious project grants are topped up with SEK 750,000 annually.

Panel comments

There is an obvious focus on promoting external funding, the incitements with possibilities to obtain top-up grants helps to keep up competitiveness of the researchers for grant renewal. The funding from VR, which is very competitive, is

relatively low, just covering parts of the projects applied for. The co-funding of PhD students is generous.

The central Grants and Innovation Office appeared to be appreciated and to be doing a good job. The coaching of ERC applicants was especially highlighted, but also the assistance with NIH and EU grants was considered well-working by the PIs who were interviewed.

The organisation has been “slimmed” and there is very little internal funding. Internal equipment is commonly run by “user clubs”, some departments have a bench-fee system for funding equipment and other common needs.

B5. Feedback and evaluation

The panel has not separately addressed this question.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

The researchers at the institute collaborate extensively internationally and there are examples of strong international collaborative projects, of which some are also funded by prestigious international grants.

C2. Relevance and impact on society

There are several examples showing the impact of research from the institute, including the drinkable cholera vaccine that was developed by institute researchers. Research from the Centre for Antibiotic Resistance Research at the University of Gothenburg (CARE) contributes a lot to reducing the risk of antibiotic resistance, and stakeholders from all over the globe use information from the centre for their decision-making. There are also many contacts with the pharmaceutical industry.

CARE is another excellent example of contribution to society. This centre, which is one of the UGOT Challenges centres, has already had a significant impact on international policies, particularly with regards to reducing risks associated with environmental discharge of antibiotics. CARE regularly provides scientific advice to international stakeholders, including the WHO, CDC, EFPIA, JPIAMR and the EU Commission. Visitors from 124 countries have used the website www.care.gu.se to gain an overview of funded research, members, symposia, published research, outreach and other activities, or to participate in online courses arranged by the centre. CARE will be one of the novel flagships of UGOT/Sahlgrenska Academy. CARE has timely research topics, top-quality performance, cross-disciplinary approach and it focuses on the WHO sustainable development goals.

In general, the descriptions of societal impact were meagre compared to other parts of the self-evaluation, and the awareness of RRI, user involvement and other societal trends seemed to remain on the lower side.

C3. Research-teaching linkages

The panel has not separately addressed this question.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

The institute prioritises small and medium-sized independent research groups working side by side in the environment. The atmosphere was generally perceived as collegial, with a positive view of research and teaching. There are common activities, such as weekly international seminars and common PhD seminars. Journal clubs and project meetings are arranged by individual groups but open for members of other research groups.

New young group leaders are expected to build their own independent groups. A clear interest in developing teaching methods and new courses was obvious at the departments, where teaching in some areas was presented as being tightly connected to ongoing research. There is also a demand that everyone should participate in teaching, and teaching contributions are registered in a common database.

Panel comments

The strategy for recruiting teachers using broad open calls has led to a wide variety of research topics at the institute. Some researchers have joined forces and work on complementary questions with joint grants. For more junior researchers, the topics are more fragmented. An active overview at the institute level of potential synergies (across departments), collaborations, and mentoring would be recommended.

There seems to be a culture of sharing only within the different departments, which was pointed out by many of the group leaders. The departments within the institute are at different locations and there does not seem to be interactions and sharing of equipment between researchers at different departments. Awareness of research and equipment at other departments is surprisingly low among PIs, postdocs and PhD students. Regarding the institutional structure aiming at serving the best research needs, it would be important to ensure that all researchers across the institute are aware of each other's research, which for example could be made by having "institute research days". Further, there should be easy collaborations and use of infrastructure across departments. Infrastructure at the university's Core Facilities seems available for all researchers, whereas there are departmental infrastructures/equipment that are less available for researchers outside that department.

Further, the ambitions to increase translational research need to be implemented. There are many good examples of translational research within the clinical departments. Even if many researchers at non-clinical departments seem to have good connections with clinicians for samples, and vice versa, for clinicians of different methodologies, this is very much on a "knowing each other basis". The transla-

tional approach would be even more facilitated and available for newly-arrived scientists if there were more structured interactions between the non-clinical and clinical departments.

Concerning teaching, there were some concerns about the distribution of teaching sometimes not being optimal and not always transparent and easy to understand.

There are currently limitations regarding laboratory space at the institute, which is lifted as a challenge for the future development of the institute's research environment. However, this might be solved in connection to a relocation of administration, which will give opportunities to expand. Space allocation did not appear to be transparent.

Recommendations

- Stimulate interactions between researchers at different departments to increase possibilities for the best research needs and to increase the critical mass.
- Stimulate interactions between researchers in defined areas for new research possibilities and for creating networks for joint applications.
- Stimulate interactions between non-clinical and clinical departments to boost the ambitions of increasing translational research.
- Develop and support a system for user fee-based user clubs that allows open usage and maintenance of important equipment over departmental borders.
- Develop a website with information of all equipment available at the departments within the institute.
- Implement a space allocation policy.
- Arrange institute days focused on research, involving active participations from senior, junior, postdoc and PhD levels.

D2. Publication

The panel has not separately addressed this question.

D3. Facilities and research infrastructure

The panel has not separately addressed this question.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

The panel has not separately addressed this question.

D4.2 Internationalisation

The environment is international, many of the employees have an international background and English is used as a working language at larger institutional gatherings. The researchers at the institute collaborate extensively internationally and there are examples of strong international collaborative projects of which some also are funded by prestigious international grants.

SECTION E – SUPPORT

E1. Internal research support

The panel noted from several of the interviews (with PIs and administrators) that there are problems regarding administrative support. Administration is organised as a separate line with a total of 28 staff (quite high), and the administrators are not localised at the departments they serve. A new move to the Lundberg Laboratory is now planned for part of the administration.

There seems to be a serious problem regarding the functionality of the administration, which urgently needs to be corrected. The panel heard a number of examples where researchers do not get the administrative support they need with respect to accounting on external grants, purchasing or in hiring. Rotation of administrative staff seems very high, and competence, case history insight, and knowledge frequency low. This also pertains to teaching administration. Different questions from the researchers regarding administrative matters (many minor) appeared frequently to be very difficult to solve, often required a lot of extra time and caused frustration, as reported in many of the interviews. Part of this seems to be due to a lack of direct contact with the administrative personnel handling the requests, as they are located elsewhere and work in pools.

Interviews with administrative staff indicate low job satisfaction, as they frequently do not have access to all necessary information from the researchers and the leadership. There appear to be elements of micro-management and bottlenecks in the flow of information.

It therefore appears important to organise a system of better integration with the departments to serve the administrative needs of research and teaching, and where administrators and researchers/teachers meet physically. A higher degree of delegation and access to primary sources of information appear to be important to arrange, as would efforts to improve the work environment of administrators in order to counteract frequent rotations.

Another important interface is that between the university and the hospital, where seamless operation of administrative support is required to facilitate interactions and collaborations between researchers at the university and the hospital.

E2. Faculty and University-wide support

The panel has not separately addressed this question.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The panel has not separately addressed this question.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

The panel has not separately addressed this question.

CLINICAL SCIENCES PANEL 1 – ORTHOPAEDICS; BIOMATERIALS; ANAESTHESIOLOGY AND INTENSIVE CARE

720	Introductory Remarks
720	Section A – Background and Research Standing
720	A1. Background
720	A2. Research standing
723	Section B – Leadership
723	B1. Leadership
724	B2. Recruitment
725	B3. Career structure
725	B4. Funding
725	B5. Feedback and evaluation
726	Section C – Complete Academic Environment
726	C1. Collaboration
727	C2. Relevance and impact on society
727	C3. Research-teaching linkages
728	Section D – Academic Culture
728	D1. Academic culture
728	D2. Publication
729	D3. Facilities and research infrastructure
729	D4. Transverse perspectives
730	Section E – Support
730	E1. Internal research support
730	E2. Faculty and University-wide support
730	Section F – Other Matters
730	F1. RED10 evaluation
731	F2. Other matters
731	Concluding Recommendations

INTRODUCTORY REMARKS

The expert panel, while working as a unit, has divided the focus according to the panel members' primary specialisation; Toennesen – Anaesthesiology; Kirkpatrick – Biomaterials; and Andersson – Orthopaedics.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

All three departments are traditionally organised with a Head of Department supported in Orthopaedics by three additional professors, in Anaesthesiology by one additional professor, and in Biomaterials by one professor supported by a Board.

Orthopaedic research activity is broad and successful, covering all subspecialty areas. A new research building provides additional opportunities.

Anaesthesiology research is clinically focussed, taking advantage of a large patient volume.

Biomaterials research is focussed primarily on musculoskeletal and dental research areas and is highly successful. The loss of funding for the BIOMATCELL Vinn Excellence Center of Biomaterials and Cell Therapy is a major concern looking towards the future.

A2. Research standing

Orthopaedics

Research is broad, covering all subspecialties. It has been particularly successful and reached international fame in sports, spine and joint replacement. A large patient base has been used to provide high-quality clinical research. The department is involved in several national registries, some of which are located in the department. The hip registry has been administered in the department since its introduction. Arthroplasty research using RSA (radio- stereometric analysis) has been highly successful, with international recognition. Tendon and ligament research has been internationally awarded and important contributions have been made in other areas of sports orthopaedics as well. Similarly, hand surgery tendon research has had strong international impact.

The quality of the research is clearly above average.

The vision for the future builds on current success and planned expansion into traumatology. The new research building can have a great impact.

Anaesthesiology and intensive care medicine

The research is strongly focused on the patient base, which is large. Experimental research is performed to a minor extent at the Department of Experimental Biomedicine. The aims of the research activity are broad, covering topics related to clinical anaesthesia and intensive care therapy. Major and strong areas of the research field have for several years been acute kidney injury and lung function, which have international impact.

Several clinically important projects are ongoing and will provide important contributions.

The Department has high national status and some fields of international fame.

The research activity is above average.

The vision for the future is cautious, because several of the group research leaders are retiring shortly.

Biomaterials

The department's research in osseointegration, guided bone regeneration, bio-material-tissue interfaces, biomaterial-related infections and exosome biology is at the international forefront. Moreover, the department's vision is strong and focussed on musculoskeletal and dental areas.

The quality of the research is at a very high level, as seen, for example, by the publication success and ability to command external funding.

Collaboration with Chalmers University of Technology and Uppsala University has been strong and ongoing, but is a concern for the future.

Summary

Orthopaedics

Research leadership meets regularly but infrequently. The research group leaders have more frequent meetings with their members. A new research section was created one year ago to improve the collaboration between academia and clinicians.

The department has excellent contact with University Management.

Anaesthesiology

Research is financed by the hospital from the clinical budget. A major concern is the retirement of several research leaders. To address this, they have recently appointed six adjunct senior lecturers. There is a concern about research funding due to the lack of suitable grant-giving bodies for the topics within anaesthesiology and intensive care medicine.

Biomaterials

The department is highly dependent on its Head of Department, who currently plays a critical role. He has an obvious understanding of the importance of leadership training for his department members and distributes assignments between members.

The department is very critical with respect to the interaction between University Management and the department, which has reached a critical state following the end of the major BIOMATCELL grant.

All three departments emphasise gender equality. In anaesthesiology, however, there are few women in leadership positions.

- Recruitment of research-interested faculty and leadership is critical to the continued success of all three departments.
- The two clinical departments have similar and commonly occurring conflict issues between clinical work and research. This is an area we would like to understand better.

Funding is primarily from block grants and internal and external contributions. It is unclear how much grant-writing is emphasised and what the success rates are.

- All departments have misunderstood the questions about feedback and evaluation. Researchers are like children – they need encouragement. Research days and honest feedback are, as discussed, important but cannot replace individual mentorship.

Orthopaedics and Biomaterials both have intense and successful relationships with other Swedish and international institutions. Anaesthesiology has good Swedish relationships and is beginning to develop international connections.

Research in all three departments is translational with important clinical and societal applications.

Doctoral education in Orthopaedics is remarkable with 70 PhD students and 8–10 dissertations a year. One wonders how so many can be successfully mentored and how quality control is managed. Anaesthesiology also has a large activity with 25–30 PhD students and 3–4 thesis defences per year. Biomaterials has had 15 PhD defences over the past five years – an enormous productivity.

The academic culture in all departments is excellent.

Publication rates in Orthopaedics is very high – over 100 peer-reviewed articles a year. Anaesthesiology publishes 30–40 a year, and Biomaterials has a good number of publications in highly-competitive journals.

The RED10 recommendations have been taken seriously and followed successfully by all departments.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- Orthopaedics leadership meets monthly.
- A new Orthopaedic research section was created one year ago to improve collaboration between clinic and academia.
- Anaesthesiology research is organised by clinical interest. There is no description of how research leadership is organised. The teaching staff for the medical students meets 4–6 times per year.
- Six adjunct senior lecturers have been recruited internally, representing ongoing research. It is unclear how they were recruited and what their individual research areas are.
- Biomaterials leadership is well organised between research areas.
- Biomaterials leadership emphasises leadership training.

Weaknesses

- Several of the orthopaedic professors are retiring. The orthopaedic research building needs additional basic scientists to take advantage of the excellent facilities.
- Anaesthesiology research is entirely funded by clinical budget.
- Several of the Anaesthesiology research leaders are retiring soon, including the department chair.
- The Biomaterials department is highly dependent on its departmental head.
- Lack of a clear institutional plan for his succession.

Recommendations

- Orthopaedics should continue regular meetings in the research subsections. Recruitment of basic scientific staff is a priority for the future and this will acquire additional funding.
- Anaesthesiology must recruit leadership with a clear understanding of the value of research and an interest in attracting grant funding from outside funding agencies.
- Sahlgrenska Academy and the University of Gothenburg (UGOT) should have a transparent strategy concerning the succession question in Biomaterials and career structure for outstanding principal investigators.

B1.2 Faculty/University level leadership

Strengths

- Orthopaedics has excellent contact with University Management through university appointments of two professors.

Weaknesses

- Anaesthesiology is highly critical of the research interactions between departments, which are described as poor.
- Biomaterials is very critical of the interaction between university leadership and the department specifically as it relates to the lost BIOMATCELL grant. There is a discrepancy between the department and the university with respect to the vision of the future of Biomaterials.

Recommendations

- Both the Departments of Anaesthesiology and Biomaterials must improve their relationships with University Management. This requires dialogue and outreach by the university. It also requires the departments to be actively involved at the university level.

B2. Recruitment

Strengths

- Anaesthesiology has recently recruited six adjunct senior lecturers.
- Orthopaedics has recruited a leader to its new research section.
- Biomaterials has been very successful in recruiting promising young researchers who have performed innovative, internationally competitive research during and after BIOMATCELL.

Weaknesses

- All three departments have several research leaders who will retire over the next several years.
- In Biomaterials there is a lack of provision for retaining some of the successful young PIs in Gothenburg. In order to successfully recruit from outside the departments, they need help from Sahlgrenska Academy and UGOT.
- Anaesthesiology is concerned that they will be unable to maintain current ALF-support on the retirement of the current chair and that they will be unable to maintain the present level of research funding.

Recommendations

- All departments need to plan for succession. Recruitment of research-interested faculty and leadership is critical for the continued success of all three departments.

B3. Career structure

Strengths

- The career structure follows traditional lines.

Weaknesses

- The two clinical departments have similar and commonly occurring conflict issues between clinical duties and research time.

Recommendations

- The two clinical departments need to develop structures that allow enough time for promising researchers to develop into successful researchers competing for national and international grants.
- Biomaterials should continue its work on creating leadership among its research leaders.

B4. Funding

Strengths

- Orthopaedics and Biomaterials have been successful at obtaining outside funding.

Weaknesses

- Most funding comes from block grants and internal and external funding in both Orthopaedics and Biomaterials. It has been difficult to obtain funding from national granting agencies.
- Biomaterials have lost their major external grant. Lack of funding sustainability to enable continuity of innovative areas established by the Head of Department with the young PIs.
- Anaesthesiology research is funded mainly by clinical funds.

Recommendations

- All departments should emphasise the importance of applying for external grants and develop a reward system for success. The university needs to be actively involved in this process.
- Biomaterials need transition help from the university until a replacement grant for BIOMATCELL is found. BIOMATCELL has been a flagship of Sahlgrenska Academy and UGOT, and a major contributor to the positive national and international ranking. The corollary of this is that a sustainable funding mechanism should be provided for the post-BIOMATCELL period.

B5. Feedback and evaluation

Strengths

- Not well described.

Weaknesses

- Not well described.

Recommendations

- The departments have misunderstood the question about feedback and evaluation. Researchers are like children – they need encouragement.
- Leadership should regularly evaluate researchers.
- Research days and honest feedback cannot replace individual mentorship.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Orthopaedics and Biomaterials have intense and successful relationships with other Swedish and international institutions.
- Anaesthesiology has good relationships nationally and is beginning to develop international connections.

Weaknesses

- The relationships between Biomaterials and the clinical departments are underdeveloped.

Recommendations

- Establish relationships between researchers in the Biomaterials department and clinical departments at Sahlgrenska Academy.

C1.2 Collaboration with external stakeholders

Strengths

- Appropriately emphasised by all three departments.
- Industry relationships are particularly strong in Orthopaedics and Biomaterials.
- Biomaterials has ongoing contract research.

Weaknesses

- The loss of the BIOMATCELL grant has resulted in uncertainty for the relationships established by the Biomaterials department.

Recommendations

- Continue this important aspect and foster existing and new relationships.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- Research in all three departments is highly translational with important clinical and societal applications.
- There is strong management support for this type of research.

Weaknesses

- It is unclear to what degree entrepreneurial aspirations by the researchers are rewarded.

Recommendations

- Continue to address clinically relevant questions.
- Emphasise entrepreneurship.

C2.2 Research relevance and impact on society

Strengths

- Research performed in all three departments is translational with great impact on clinical work and on society.

Weaknesses

- None noted.

Recommendations

- Continue to emphasise the translational nature of research in all departments.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Significant activity in Anaesthesiology.

Weaknesses

- There is no master's programme in biomaterials or tissue engineering. In teaching of medical students there is no formal teaching in biomaterials.

Recommendations

- Exploring a joint master's programme in biomaterials and tissue engineering between Sahlgrenska and Chalmers is a worthwhile suggestion. There should be formal teaching of biomaterials to medical students.

C3.2 Doctoral education

Strengths

- Exceptionally strong in Orthopaedics.
- Strong in Anaesthesiology.
- Very strong in Biomaterials.

Weaknesses

- Mentoring all the PhD students in Orthopaedics is challenging.

Recommendations

- Continue the successful PhD programmes in all three departments. Develop a course in biomaterials available for master's/undergraduate students.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The academic culture is excellent in all three departments.

Weaknesses

- Suspected plagiarism and disputes have been issues in Orthopaedics.

Recommendations

- Creating an international seminar series in collaboration between Orthopaedics and Biomaterials is a good suggestion.

D2. Publication

D2.1 Publication strategy

Strengths

- Publication rate in Orthopaedics is very high and is strong in the other departments as well.
- Internal discussions at an early stage to agree on authorship / co-authorship.

Weaknesses

- None.

Recommendations

- Continue to focus on publications in high-quality journals.

D2.2 Analysis of bibliometric data

Strengths

- Publication numbers in Orthopaedics are increasing.
- Biomaterials publications are mostly in the highest ranked journals in their field.
- Anaesthesiology has a steady publication rate of 30–40 articles/year.

Weaknesses

- None.

Recommendations

- Continue focusing on high-quality journals.

D3. Facilities and research infrastructure

Strengths

- The research infrastructure in Orthopaedics is strong and should benefit from the new research building and the new research section.
- Biomaterials has a strong research infrastructure.
- Anaesthesiology covers its research infrastructure within the clinical activity.

Weaknesses

- The opportunities of the orthopaedic research building are not yet completely taken advantage of.

Recommendations

- Funding for the research infrastructure requires input from the university. Basic researchers should be recruited to the orthopaedic research building.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- Very good in all three departments.

Weaknesses

- None.

Recommendations

- None.

D4.2 Internationalisation

Strengths

- Very strong in Orthopaedics and Biomaterials.
- Beginning to develop in Anaesthesiology.

Weaknesses

- None.

Recommendations

- Continue to stimulate researchers to expand their horizons outside of Sweden and to offer opportunities for researchers from other countries than Sweden.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Unclear from the self-evaluation.

Weaknesses

- The clinical departments have difficulty in reaching internal funding at the target 2% level.

Recommendations

- The departments and university should come to an agreement about the appropriate levels of internal research support.

E2. Faculty and University-wide support

Strengths

- Orthopaedics seems to utilise university-wide resources.

Weaknesses

- Anaesthesiology is unhappy about the geographic distance between administration and clinic.
- Biomaterials are unhappy about the help they receive from the university.

Recommendations

- A dialogue must be established between Biomaterials and University Management.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The RED10 recommendations have been taken seriously and followed successfully by all three departments.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

These are three strong departments from a research perspective, and in the case of Orthopaedics and Biomaterials, exceptionally strong.

A major future threat is the ageing of research leadership in all departments, with several retirements in the near future. The questions of succession and sustainability are of great importance and concern.

Funding, as always, is necessary to maintain the current success.

CLINICAL SCIENCES PANEL 2 – SURGERY; UROLOGY; PLASTIC SURGERY; GASTROSURGICAL RESEARCH AND EDUCATION; TRANSPLANTATION

734	Introductory Remarks
735	Section A – Background and Research Standing
735	A1. Background
737	A2. Research standing
747	Section B – Leadership
747	B1. Leadership
749	B2. Recruitment
750	B3. Career structure
751	B4. Funding
752	B5. Feedback and evaluation
755	Section C – Complete Academic Environment
755	C1. Collaboration
756	C2. Relevance and impact on society
757	C3. Research-teaching linkages
758	Section D – Academic Culture
758	D1. Academic culture
758	D2. Publication
759	D3. Facilities and research infrastructure
759	D4. Transverse perspectives
760	Section E – Support
760	E1. Internal research support
761	E2. Faculty and University-wide support
761	Section F – Other Matters
761	F1. RED10 evaluation
765	F2. Other matters
765	Concluding Recommendations

INTRODUCTORY REMARKS

The members of Clinical Sciences Panel 2 wish to express thanks to Professor Staffan Edén for the invitation to participate in the RED19 evaluation of the Institute of Clinical Sciences at Sahlgrenska Academy (SA). The panel's thanks also go to the RED19 coordinating staff for the travel and accommodation arrangements made. The panel received timely and comprehensive documentation ahead of the visit, which was most useful in preparation.

The chair, Professor Ronan O'Connell, made a preliminary site visit in January facilitated by the RED19 coordinating staff, Professor Peter Naredi and Professor Eva Angenete. The chair and panel members, Professor Malin Sund and Professor Harry de Koning, corresponded and held a teleconference ahead of the formal site visit.

The panel visited Sahlgrenska University Hospital (SUH) and SUH Östra on Tuesday 2nd and Wednesday 3rd April to evaluate the Departments of Surgery, Gastrosurgical Research and Education, Plastic Surgery, Urology and Transplantation. The panel also visited the Sahlgrenska Cancer Centre at SUH.

The panel wishes to record its appreciation of the warm welcome received and the considerable efforts made to make the visits as informative as possible. The Institute Prefect, Professor Peter Naredi, and the academic lead of Surgery, Professor Eva Angenete, were constantly available and provided all additional information requested. The clinical directors of both SUH, Dr Erik Johnsson, and SUH Östra, Dr Malin Ragnmark, also were available for discussion.

The five departments included in the panel's review represent a large proportion of surgical academic activity within the Institute of Clinical Sciences but did not include orthopaedics, vascular, cardiothoracic, paediatric or gynaecological surgery.

The overall atmosphere was collegial and welcoming. There was a comprehensive programme that covered most academic and clinical activities of the departments visited. All participants had prepared for the review and made summary presentations of their activity. There is a commendable expectation that all staff surgeons engage in continuing research, primarily by supervising PhD students. The panel met with a number of PhD students both in the presence of and separately from their supervisors. The panel also had brief visits to the departmental laboratories at SUH Östra and the Sahlgrenska Cancer Centre.

The panel had ample time to privately discuss their findings and to present preliminary feedback to the departmental leadership.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The 16 departments within the Institute of Clinical Sciences at Sahlgrenska Academy are aligned into three sections, each with a section leader. Each department has a clinical lead and, with the exception of Plastic Surgery, a separate academic lead. In general, the alignment of departments within the sections is pragmatic, however it is notable that the disciplines vascular and cardiothoracic surgery are located within the Institute of Medicine.

For the purposes of the RED19 review, the 16 departments within the Institute of Clinical Sciences were rearranged into four groups – panel 2 was given the remit to review the Departments of Surgery, Gastrosurgical Research and Education, Plastic Surgery, Urology and Transplantation.

The organisation of individual departments is complex reflecting the differing surgical specialties and the parallel academic and service delivery needs. The Department of Surgery is the largest and includes a number of different sub-specialties – Colorectal, Trauma (but not orthopaedics) Breast, Endocrine, and Upper-GI (including biliary and pancreatic but not hepatic surgery). Each sub-specialty within the Department of Surgery works independently and has its own individual clinical and academic leads (except for Plastic Surgery). Arguably each sub-department within the Department of Surgery could warrant recognition as an individual department within the Institute.

The organisation within the Institute of Clinical Sciences is complicated by the competing needs of clinical service, postgraduate and undergraduate teaching and research. The panel found the organisational structure difficult to understand, particularly in the context of an apparent institutional culture of flat hierarchy. While it was clear that the Institute Prefect, Professor Peter Naredi, has overall academic responsibility, the individual departments and sub-departments within the Department of Surgery, appear to have considerable autonomy in academic matters.

Professor Eva Angenete has recently been appointed academic lead at the Department of Surgery. She is based at SUH Östra and visits the main campus at SUH one day per week. It is clearly important for SUH Östra to be strongly represented within the institute, however it remains to be seen if a part-time presence of the academic lead on the larger SUH campus will enhance academic cohesion within the Department of Surgery as a whole.

The Department of Surgery at SUH has strong clinical leadership and translational research programmes in pancreatic cancer, breast cancer, melanoma, endocrine and sarcoma surgery. Breast cancer services are to be delivered at SUH Östra. The

department has set itself the goal of establishing a translational clinical research platform within the surgical and surgical oncological fields especially within the areas of breast, pancreatic, colorectal and liver cancer.

The Department of Trauma is currently being established with the ambition of developing a combined Civil Military Medical Centre in collaboration with the Swedish Defence Forces. The vision is to develop collaboration between departments, broaden research within prehospital trauma care, and to develop expertise in disaster medicine within Sahlgrenska Academy. An adjunct professor, Per Örténwall, is already employed and an external visiting Professor, Ken Boffard, from South Africa is assisting in the development of the project.

The Department of Gastrosurgical Research is due to merge with the Department of Surgery in the near future. The principal area of clinical practice and research interest is in metabolic surgery (surgery for obesity). It is planned that this service would be delivered solely at SUH Östra.

The academic lead at the Department of Plastic Surgery is also the clinical lead. This has potential advantages but also may lead to difficulties in separating these roles within the Swedish setting of separate organisational and budgetary systems. There is a full professor of plastic surgery within the department, however the division of leadership between the academic/clinical lead and the professor is unclear. The department has a strong international reputation for craniofacial reconstruction, however there are many clinical interests within the department with individual research programmes but little external funding. The panel believes that it will not be possible to maintain all of these research themes and suggests that a strategic plan be developed based on the research priorities.

The Department of Urology has strong clinical and academic leadership. It is clearly committed to undergraduate teaching – the panel was impressed by the presentation by Professor Ralph Peeker who, with his colleagues, has published an undergraduate textbook. The department has an international reputation for high-quality, population-based studies in prostate cancer screening. These studies are supported within the department by population health and statistical expertise. These supports appear to be restricted to the funded prostatic cancer studies. The department also has an ambitious translational research portfolio in prostatic cancer.

The Department of Transplantation has been/is in the midst of a process of investigation of possible research misconduct, the outcome of which is as yet somewhat unclear. The academic lead, Professor Michael Olausson, has an international reputation for innovative research, however as a result of the investigations he has had to shift his research focus from regenerative medicine to experimental organ preservation. The investigation has caused significant disharmony within the department.

The clinical transplantation unit is one of the largest units in the Nordic countries. It was difficult for the panel to assess the organisational structure of the Department and how this relates to academic activity. The academic interests and research outputs, other than those of Professor Olausson, were not included in the RED19 self-assessment or the presentation made to the Panel.

A2. Research standing

The remit of Panel 2 was to evaluate the research standing of the Departments of Surgery, Gastrosurgical Research and Education, Plastic Surgery, Urology and Transplantation. Within the Department of Surgery there are six clinical sub-specialty units, located across the two SU Hospitals. Each of these units is in effect a functionally separate clinical department. There are relatively few overlapping research interests between the departments and sub-specialty units other than common use of regional and national databases, need to access core facilities for biobanking, tissue culture, small animal research (particularly mouse patient derived xenograft models) and access to molecular biology platforms.

The overall research strategy of the institute is not to 'govern what each department should focus on' but rather to '*strengthen research of high quality with a clear connection to clinical specialties...by recruiting new professors*' (RED19 self-evaluation).

The vision of global support of research within the institute, and the absence of a thematic research strategy, creates difficulty in supporting such a diffuse and varied portfolio of research among the several departments.

Within the Department of Surgery alone there are 10 research groups that work beyond the boundaries of the clinical subdivisions:

- The Jonas Nilsson Group at Sahlgrenska Cancer Centre (SCC) led by Professor Jonas Nilsson;
- The C. elegans lab at SCC lead by Professor Peter Naredi and researcher Gautam Kao;
- The metabolic laboratory research led by senior researcher Kent Lundholm and Britt-Marie Iresjö, SU/S;
- The gastrointestinal research group, pancreas platform, led by Professor Peter Naredi and researcher Johan Bourghardt Fagman, SU/S;
- Liver tumour research group led by associate professor Magnus Rizell and Professor Peter Naredi;
- The Fibrinolys laboratory led by adjunct professor Mari-Lois Ivarsson and researcher Peter Falk, SU/Ö;
- The Surgical Oncology Laboratory led by senior researcher professor Bengt Gustavsson with researchers Helena Taflin, Elinor Bexé Lindskog and David Ljungman, SU/Ö;
- The Scandinavian Surgical Outcomes Research Group led by Professor Emerita Eva Haglind and Professor Eva Angenete SU/Ö;

- The Colorectal laboratory led by Doctor Jonas Bengtsson and Doctor Mattias Block;
- The international trauma collaborative group led by Guest Professor Ken Boffard.

The result is a substantial research output of variable quality both within and across the disciplines that ranges from very average to internationally competitive. This is reflected in the bibliometric data provided wherein the publications emanating from SA are comparable to national benchmarks. The panel notes however, that comparisons have not been made with the Karolinska Institute, which is probably more relevant to the medical specialties.

The panel was concerned that not all publications from affiliated clinical units and researchers are being captured by the university and therefore are not included within the bibliometrics provided.

Department of Surgery

Professor Eva Angenete has recently been appointed academic lead at the Department of Surgery based at SUH Östra. She is highly capable and ambitious for the department. Her clinical specialty is Colorectal Surgery which is now performed electively only at SUH Östra. With Professor Eva Haglind, she has developed a Scandinavian Surgical Outcomes Research Group, which is focused on outcomes of surgery for colorectal cancer and diverticular disease.

Research activities within the overall Department of Surgery are initiated and driven by individual researchers within the sub-specialties. Neither the institute or the Department of Surgery as a whole govern what research areas each sub-specialty department or individual clinician focuses on.

The institute has chosen to keep much of the responsibility for teaching and research at department level. This is in keeping with the university and Swedish Research Council view that research initiatives should emanate from individuals rather than develop as part of university or faculty strategic decisions (as per the RED19 faculty level self-evaluation).

The level of academic oversight within the departments and sub-specialty departments varies. The Department of Surgery has constituted a Departmental Research Board representing the University of Gothenburg's (UGOT) heads of clinical specialties and laboratory activities with the remit of: monitoring financial and human resources to ensure feasibility and high quality of clinical studies, coordinating multiple studies on the same patient group, aiding in the planning and initiation of new studies, interacting with other units at the hospital and commercial operators and communicating research outcomes to all staff at the clinic. Other departments appear to have much less-formal arrangements.

Between 1.8% and 2% of the overall clinical budget is ringfenced for research at both SU hospitals. ALF funding is also received on an annual basis. Professors with

UGOT appointments have designated time for teaching and research, however, it was unclear how time for academic activities among staff surgeons and PhD students was apportioned. Much seemed to be ad hoc and subject to availability determined by clinical workload.

There is a large number of PhD students within the institute as a whole. The numbers of students varied within the specialty departments reviewed. Most students are in specialty training and are registered as part-time PhD students. Unless external research funding is available, funding clinical PhD students appears to be a recurring difficulty, requiring both the academic and clinical leads to essentially commit to an open-ended contract.

Clinical trainees registered for a PhD have the option of taking time out of formal training to undertake full-time research, however the great majority either opt or are encouraged to undertake part-time research. This frequently extends the time taken to complete and defend a thesis up to eight years and sometimes longer. Recently a number of mandatory modules in research design and statistics have been required by UGOT following registration.

There did not seem to be a formal clinical PhD application process, whereby a student applies to undertake a designated project with set outcomes and timelines. Neither did there appear to be a formal annual external review of progress as is required by most universities. Indeed, it seemed common for research projects to evolve over time.

Strengths

- Strong research ethos throughout.
- Delegated control of resources.
- Secure funding through UGOT allocations for teaching and research, hospital allocations (1.8%–2.0%) and ALF allocation.
- Excellent facilities, both clinical and translational, particularly in cancer research.
- Strategic decision to recruit research nurses for clinical trial support.

Weaknesses

- Horizontal clinical and academic management structure without cohesive strategic plan.
- Delegated control without Institutional oversight may lead to duplication of resource utilisation.
- Large number of clinical PhD students with varying levels of academic mentorship.
- Relative absence of mid-career academic surgeons.
- Moderate publication record, which may reflect failure to capture all relevant publications within UGOT bibliometrics.
- Relative absence of EU or other major international collaborative research funding.

Recommendations

- Develop 5-year strategic plan that prioritises outstanding research, external grant application and pivotal academic appointments.
- Institute a cyclical process of QAQI (quality assessment / quality improvement).
- Constitute institute-level research board with oversight of research strategy and departmental resource allocation..
- Consider providing institute-level core resources to support grant writing and big data analysis.
- Review clinical PhD pathway to facilitate 4-year PhD programmes.
- Ensure bibliometric capture of all research outputs from the institute.

Overall assessment: Above average

Department of Surgery – subspecialty Colorectal

Colorectal surgery is now performed electively only at SUH Östra. Six clinical trials have been completed and a further six are currently recruiting. The primary research focus is on outcomes of surgery involving large bowel resection and minimally invasive surgical techniques. There is a small laboratory facility, however there is an ambition to develop a clinical research laboratory within the proposed surgical HUB building at SUH Östra.

Professor Angenete has the strong support of Dr Malin Ragnmark who has agreed to designate 2% of the clinical budget of SUH Östra towards supporting research activity – principally by allowing clinical PhD students to take short periods off clinical service to perform research.

The Colorectal Department at UGOT has had a strong international profile in surgery for inflammatory bowel disease through the pioneering work of Professors Kock and Hultén. In recent years there has been relatively little new research in this area. The panel supports the view that a new academic appointment with particular interest in IBD would be an important development.

Strengths

- Strong leadership and support.
- Good trial infrastructure (SSORG) supported by 6 x 0.5FTE research nurses and eight registered PhD students.
- 104 publications since 2009.
- Professor Eva Haglind and Associate Professor Mattias Block provide excellent academic support.

Weaknesses

- SSORG focused on colorectal and minimally invasive surgical trials.
- Supporting translational research is difficult at SUH Östra when core laboratory facilities are at SUH.
- Difficulties releasing PhD students from clinical duties to undertake research.
- Absence of EU or other international funding.

- Failure to maintain international profile in IBD surgery.
- Breast surgery and metabolic surgery unlikely to provide collaborative research opportunity at SUH Östra.

Recommendations

- Develop a five-year strategic plan and implementation strategy.
- Develop population science and grant writing support within Department of Surgery.
- Restructure clinical PhD programme into a shorter, more focused research experience.
- Encourage postdoctoral research.
- Look to international exchange and collaborative research opportunities
- Secure EU Horizon Europe funding.
- Strategic academic appointment in IBD surgery / research.

Overall assessment: Above average

Department of Surgery – subspecialty Upper GI

This sub-specialty within the Department of Surgery has a strong translational research ethos. It is staffed by one professor, one assistant professor (20%), two associate professors in full time research, six clinically active surgeons with PhDs, three clinically active PhD-students, one senior scientist, one senior consultant nurse, four research nurses, two laboratory technicians, one IT engineer, one biotech engineer.

The department is involved in six large clinical trials and is the Swedish national lead in two.

The major translational focus is to develop a comprehensive research platform to study pancreatic malignancy thorough liquid biopsy analysis of circulating tumour cells and ctDNA, exosomes and by using tissue explants in patient-derived xenograft models and tissue microarrays.

Strengths

- Very well staffed and resourced.
- Strong translational ethos with access to the cancer research centre.
- Large patient population.
- Engaged in multiple clinical studies.
- Research committee established.

Weaknesses

- Unclear relationship with other sub-specialties in the Department of Surgery.
- Little external funding (NORPACT – is based in Norway).
- Modest publication record (however this may reflect failure of UGOT to capture all relevant publications).
- Five-year strategy not articulated.

- Surgery for benign upper GI disease moving to SUH Östra.

Recommendations

- Develop a five-year strategic plan and implementation strategy.
- Restructure clinical PhD programme into a shorter more focused research experience.
- Encourage postdoctoral research.
- Look to international exchange and collaborative research opportunities.
- Secure EU Horizon Europe funding.

Overall assessment: Above average

Department of Surgery – subspecialty Breast, Endocrine and Melanoma Surgery

The breast, endocrine and melanoma section of the Department of Surgery is well staffed with 11 surgeons, one associate professor, one guest professor, five PhD students, 2.5 research nurses and two research scientists. The research strategy is to use the large clinical volume to create high impact translational research and in doing so to establish the SUH Breast Cancer Centre and to work with existing Swedish networks SMSG (melanoma) and SweBCG (breast).

The panel was provided with examples of current translational research involving isolated limb perfusion in melanoma and the potential value of pre-habilitation in breast surgery. Interesting work on use of tumour scaffolds and the potential interaction between extracellular matrix proteins and tumour cells was also presented. Details of 17 on-going or proposed clinical research protocols were presented.

A five-year ambition to have 2–3 research leaders at associate or full professor level within the unit, a dedicated translational laboratory and international collaboration was presented

The endocrine and sarcoma group has approximately 1,000 new patient referrals annually and performs approximately 600 surgical procedures, including approximately 150 NET/abdominal sarcoma procedures. This case volume is amongst the largest in Europe and provides an enormous resource for the translational research currently ongoing.

Strengths

- Ambitious and motivated leadership.
- Exceptional access to clinical material.
- Breast cancer centre and translational laboratory in development.
- Large number of clinical studies underway.
- Only group to provide a five-year strategic plan.

Weaknesses

- Potential to lose focus on areas of unique opportunity by diversifying research interests – e.g. 17 strands of translational research.

- Critical need to ringfence time for academic oversight and grant-writing.
- Need to streamline PhD workflow to maximise scientific opportunity in a rapidly evolving scientific field.
- Urgent need to develop international collaborations that will leverage major external funding.

Recommendations

- Leverage current research to attract external funding.
- Rationalise and focus research themes.
- Recruit academic clinician(s) and scientist(s) to support ambitious plan.
- Streamline PhD pathway to maximise research opportunity.

Overall assessment: Above average

Department of Gastrosurgical Research and Education

This department is in the process of amalgamating with the Department of Surgery. The department has a strong academic record and scored highly in the RED10 review (5/6). Currently there are six PhD students and three postdoctoral clinicians within the department.

The current focus is on metabolic surgery, which is due to transfer to SUH Östra. However there has been significant loss of senior academic input due to illness, retirement and resignation. There are several important studies ongoing concerning the outcomes of metabolic surgery, particularly as it may affect calcium metabolism and bone health.

Strengths

- International reputation for high quality clinical research.
- Large number of PhD students and postdoctoral clinicians.

Weaknesses

- Relocating clinical surgery to SUH Östra.
- Significant loss of senior leadership in recent years.
- No strategic plan articulated.

Recommendations

- Develop a five-year strategic plan and implementation strategy.
- Urgently address recruitment to address deficits in academic leadership.
- Restructure clinical PhD programme into a shorter, more focused research experience.
- Develop external collaboration.
- Secure external funding for translational research into the long-term outcomes of metabolic surgery.

Overall assessment: Average

Department of Plastic Surgery

The academic lead at the Department of Plastic Surgery is also the clinical lead at this department (Professor Anna Elander), although another professor is also appointed (Lars Kölby). This can potentially be beneficial but may also lead to difficulties keeping these roles apart in the Swedish setting with two completely separate organisations and budget systems. Difficulties in separating roles as clinical and academic lead could impact on strategic planning.

The department has a unique experience in craniofacial surgery. The techniques developed in the department have informed modern treatment of both craniofacial deformities and cleft palate. The department has a database of patients treated with synostosis with a 19-year follow-up dating from 1957. Surprisingly, no review of GDPR compliance has been undertaken. Current research interests include use of image-guided and robotic techniques and tissue engineering. The latter is facilitated by collaboration with biomaterials experts at Chalmers University of Technology.

The department also has a large clinical practice in general plastic and reconstructive surgery. There are particular interests in breast reconstruction and skin reduction following metabolic surgery. There are considerable opportunities for collaborative research with the relevant surgical departments, however no cohesive research protocols appear to be in place.

The department also has interest in gender reassignment surgery with the recruitment of Dr Gennaro Selvaggi from Gent, Belgium. Dr Selvaggi has an ambitious research agenda, however the feasibility of many of the proposed studies remains to be demonstrated. No evidence of interaction with endocrinology or clinical psychology was presented.

Strengths

- International reputation in craniofacial and cleft surgery.
- Large population base and unique patient registry.
- Enthusiastic clinical leadership.

Weaknesses

- Absence of a departmental strategy with a predominance of individually-led research projects.
- Apparent failure to engage with synergistic specialties such as breast and metabolic surgery.
- Potential conflict between clinical and academic leadership roles.
- Concern that gender reassignment surgery is dependent on one individual who may relocate depending on career opportunities.

Recommendations

- Develop a five-year strategic plan and implementation strategy.
- Address potential conflict between academic and clinical leadership.

- Urgently confirm compliance with GDPR.
- Restructure clinical PhD programme into a shorter, more focused research experience.
- Develop external collaboration.
- Secure external research funding.

Overall assessment: Above average

Department of Urology

There is a strong academic leadership, with a clear vision on research. The academic head is Professor Jonas Hugosson. Professor Ralph Pecker has a particular remit for education within the department. There is an adjunct professor, Ola Bratt (financed by Sahlgrenska Hospital) and three associate research professorial positions (20–50 % research time). In addition, there are four associate clinical professors in the clinical staff, two postdoctoral students and 17 active PhD students (10 females and seven males).

The department has established a clinical epidemiological and biostatistical unit staffed by a biostatistician who also is an associate professor, a database manager, a research study nurse and an administrator. In addition, the Departmental Clinical Research Unit employs four research study nurses.

The Urological Lab at Sahlgrenska Cancer Centre employs three molecular biologists, of whom two are associate professors and one is a postdoctoral scientist, one PhD Biomedical Analyst and four active PhD students. An excellent programme of translational research is in place focusing on metastatic prostate cancer.

The department is engaged in 15 clinical trials, mainly on prostate cancer. Both national and international collaborations are clearly active. The department has published very important papers in the field of screening for prostatic cancer in high-impact journals (including the New England Journal of Medicine).

The department is well funded with a total budget of external funding of approximately €1.2 million (Swedish Cancer Foundation, Swedish Research Council and others) and is a partner in the EU-funded PIONEER study. Five senior researchers have ALF/LUA grants of approx. €0.5m.

Continued success of this research group will depend on identifying upcoming research leaders. It will be crucial for this group to focus on a couple of areas, e.g. epidemiology and clinical studies, and to establish strong collaborations related to e.g. model systems and hereditary causes of prostate cancer. This research group could also develop industrial collaborations related to novel treatment principles for androgen-resistant prostate cancer.

Strengths

- Strong academic leadership.
- International reputation in prostate cancer research.
- Excellent departmental organisation and infrastructure.
- Strong translational platform in support of clinical programmes.
- Deep commitment to undergraduate education.
- EU funding secured.

Weaknesses

- Large number of PhD students with variable level of academic mentoring.
- Leadership is senior without clear succession planning.
- Limited work on urological diseases other than prostate cancer.

Recommendations

- Academic succession planning urgently needed.
- Ambition to lead consortium for further EU funding, perhaps ERC.
- Consider expanding the Clinical Epidemiological and Biostatistical Unit to support other departments within the Institute.

Overall assessment: Excellent

Department of Transplantation

From an academic standpoint, this department is emerging from a period of great disruption caused by investigation of potential research misconduct. The appears to be ongoing disharmony within the department between the clinical and academic leads.

The academic lead has a number of interesting new research ideas on organ preservation with the aim of increasing number of organs available by allowing longer ischemia time. The current focus is on kidney transplantation in a porcine model, but this may extend to liver transplantation. As this is at a preliminary stage, the potential impact is unclear as the new research initiatives may not prove transferable to humans.

Strengths

- Professor of Transplantation with innovative ideas who has reoriented his research after the misconduct affair.

Weaknesses

- Unclear what will happen and how the leadership will be organised.

Recommendations

- The unit should aim at making a clear five- and 10-year plan.

Overall assessment: Below average

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Faculty leadership

Panel 2 had a short meeting with the Dean and the Institute Prefect. The policy of prioritising research initiated and driven by individual researchers in order to maximise potential for scientific breakthroughs was discussed. While the panel could appreciate the merits of such a policy, it was concerned that failure to identify key research themes within clinical disciplines in order to promote interdisciplinary research reduces the possibility of greater impact (i.e. the sum being greater than the individual parts). The only interdisciplinary theme identified in the self-evaluation was Health Engineering in collaboration with Chalmers University of Technology.

The policy of ‘bottom-up’ lead research is overcome to some degree through the creation of 20 research centres in order to create collaborative synergies, increase productivity and funding income. Some of these centres operate on the institute level, some are faculty-wide, and some are joint ventures with external partners such as Chalmers University of Technology and SUH. The panel found evidence of good collaboration between clinicians and the Sahlgrenska Cancer Centre, however there was little apparent interaction with core support facilities at faculty level, other than acknowledgement that some core supports could be accessed.

The panel expressed concerns over the time taken for clinical researchers to complete PhD studies, eight to 10 years in some cases, and the variable quality of academic oversight.

Strengths

- Ambition to conduct research of high scientific and societal relevance on an excellent or even outstanding international quality level.
- Faculty-wide commitment to supporting clinical research.
- Collaboration with Chalmers University of Technology on AI and digital health.
- Exchange partnership programmes (research and education) with foreign universities.
- Delegated responsibility to individual departments to develop research areas of interest.
- Possibility for ‘blue skies’ initiatives to foster innovation.

Weaknesses

- Absence of core research themes other than Health Engineering.
- Apparent absence of a strategic plan to implement research ambitions.
- Disconnect between faculty, Core Facilities and clinical departments.
- Seeming ‘ad hoc’ arrangements for clinical research by surgical trainees with variable academic supervision.
- Relative lack of core support for grant-writing / applications.

Recommendations

- Critical review of current ‘bottom-up’ approach to clinical research.
- Develop high-level strategic research thematic plan – no institution can excel in everything.
- Facilitate access to core research funding support – grant awareness, grant-writing.
- Critically review current model for clinical PhD studies.

B1.2 University level leadership

UGOT is a complex organisation comprising eight faculties (including the Sahlgrenska Academy), 48,000+ students and 6,000+ staff. The university’s vision is to be home to world-leading research environments within all academic areas by 2020 (Vision 2020). University Management uses strategic financing or co-financing of individual researchers, centres and infrastructures as a means to stimulate certain aspects of research or categories of researchers. The co-financing strategy is continuously reviewed by the university’s Research Council to support: younger, promising researchers who have secured certain prestigious funding; excellent, established researchers who have secured significant, prestigious funding from specified calls; nationally-funded research infrastructures; indirect costs not covered by the EU or other major international grants, and to support participation in collaboration projects funded by Sweden’s Innovation Agency (Vinnova). Resources are allocated to the Grants and Innovation Office, in order to support and strengthen research and increase external funding of research at all faculties.

The university’s commitment to the RED19 project was clear as evidenced by the very extensive and careful preparatory work by Professor Edén and the RED19 team. The Vice-Chancellor and Senior Management Team were clearly engaged and receptive to feedback given.

The panel had little direct engagement with university leadership other than through the RED19 team, the welcome presentation by the Vice-Chancellor, and faculty level feedback to the Senior Management Team on the final day of the RED19 review.

The complexity of the Sahlgrenska Academy with 30 departments and seven other sections creates a considerable administrative distance between the university and individual departments. Thus, it was not clear to the panel that the university’s research ambitions, as set out in Vision 2020, were relevant to the individual clinical researcher who felt entitled and encouraged to pursue research of personal interest and relevance rather than collaborating with others to create a world-leading research environment.

The panel was strongly of the view that the university must reappraise the present structure of clinical PhD training over extended periods up to eight or even 10 years. The panel felt that a more focused and intensive research portfolio is required to create the world-leading research environment aspired to.

Strengths

- UGOT's size, reputation and collegial atmosphere.
- Commitment of senior leadership.
- University-wide commitment to research.
- Individual outstanding departments.
- Unique access to regional and national registry data.

Weaknesses

- Complexity of management structure – potentially poor communication.
- Decentralised decision-making.
- Disconnect of individual clinical units with loss of university vision and ambition.
- Poor structure of clinical PhD programme.

Recommendations

- Develop research vision and strategy for Sahlgrenska Academy.
- Identify and invest in themes / projects likely to be world-leading.
- Institute a cyclical Quality Assessment / Quality Improvement process.
- Encourage external recruitment to key clinical and research roles.
- Review clinical PhD programme.

B2. Recruitment

The departments reviewed by panel 2 all provide excellent clinical service and good opportunities for clinical and translational research. Recruitment should therefore not be difficult; however, it is apparent to the panel that there is a significant gap at mid-career level within each of the departments. Difficulty with succession planning was a recurrent theme. Of the 12 full professors within the institute, 11 are 55 years of age or older and 10 are over the age of 60. The majority of academic clinicians (60%) had obtained their PhD at UGOT and within the clinical disciplines almost all were primarily Swedish trained.

The institute has ambitious plans to recruit additional academic clinicians over the next five years, however funding these posts is problematic and there is no apparent strategic plan agreed at faculty level. Guest professorships are an excellent means of bringing particular expertise, particularly when establishment of new programmes or research themes is contemplated. The appointment of Professor Ken Boffard to advise regarding the Trauma Centre initiative and Professor Ricardo Audisio to assist in development of the Breast Cancer Centre are good examples.

The panel recognises that the requirement for fluency in Swedish is a considerable impediment to recruitment of international clinicians. Clinical fellowship or post-doctoral experience overseas is a means to overcome this difficulty and needs to be strongly encouraged. One mechanism to facilitate this is by proleptic appointment ahead of expected retirements, however the panel observed that retirements did not always occur as expected – hence the unhealthy age profile among the senior clinical academics.

Strengths

- Excellent opportunities for clinical and translational research.
- Strong national and international profile.
- Tenured pathway to senior positions.
- Guest professorships available.

Weaknesses

- Age profile of senior academics creates difficulty in succession profile.
- Institutional inbreeding.
- Current duration of clinical PhD studies obviates against international fellowship or postdoctoral experience.
- No external search strategy for senior academic recruitment.

Recommendations

- Develop a strategic recruitment plan agreed with the hospital and faculty.
- Constitute search committees for strategic appointments, include international advisors.
- Aim for 50% external recruitment to key positions.
- Encourage external/international fellowship or postdoctoral experience.
- Expand the international visiting professorship programme.

B3. Career structure

There is a very supportive career structure within the departments reviewed. Clinical trainees are strongly encouraged to undertake research; however, the various funding streams and durations of study remain problematic. The great majority of clinical trainees undertake part-time research which often is subordinate to clinical duties. Presentation at national and international meetings is encouraged, however the apparent absence of annual appraisal and submission deadlines can lead to slower than expected progress.

The majority of UGOT-affiliated staff surgeons trained and completed their PhD studies at SA suggesting that external competition for tenured positions is not as competitive as might be expected. The security this brings to the trainee is welcome, however the relative absence of external competition is unlikely to raise average academic standards.

Strengths

- Supportive career structure for clinical trainees and junior faculty.
- Ambition to promote junior faculty to associate professor level.
- Availability of core funding to support research nurses and PhD students in clinical research projects.
- Availability of core facilities for cell biology and cancer research.
- Unrivalled access to institutional, regional and national registries.

Weaknesses

- Too many senior (older) academics – few mid-career positions.

- Absence of a ‘fast-track’ academic programme for outstanding trainees.
- Relative absence of competition for promotion – too many are ‘comfortable’ rather than ‘challenged’.
- Introverted culture – most faculty and trainees have not worked / trained outside local region.
- PhD projects are mainly in a supervisor-student setting without critical external review.
- Relative lack of support for grant-writing / applications.
- Considerable loss of clinicians to private sector (50% in Plastic Surgery).

Recommendations

- Focus and condense research into more structured interdisciplinary themes.
- Critically review current clinical PhD pathway.
- Encourage external fellowships / exchange.
- Support excellence and fast-track promotion.
- Promote / recruit to middle-ranking academic positions as part of succession plan.
- Address ongoing disharmony in Department of Transplantation.

B4. Funding

Overall the departments reviewed are well resourced through ALF and other funding sources. Both hospitals commit 1.8% to 2% of their core grant to research activities. The decision to support each department with one or more research nurses is an excellent use of such resources that promotes participation in clinical trials and helps to maintain and access the various clinical registries.

Some departments, most notably Urology, have been successful in securing large grants to support clinical studies. Other departments have also been successful, however the panel did not sense an ambition to develop / lead consortia that might be competitive for Horizon Europe or ERC funding. The overall success in grant applications (less than 15%) is low by international standards.

While individuals had experience in grant-writing and application, the panel felt that an institute-level shared core grant-writing resource on a part-time or ad hoc basis would be an excellent support that would increase grant application success rates and in time would be self-funding.

The panel felt greater efforts in securing matching industry funding in translational research – AI, bioengineering, clinical trials etc., would secure considerable additional funding.

The institute employs five full-time accounting personnel to keep track of institute finances, and a large number of individual research accounts.

Strengths

- Core grant income from ALF and Hospital provides stability and continuity.

- Individual departmental success in external funding application.
- Employment of research nurses highly efficient and cost-effective.
- Access to core research facilities – overheads funded at institute and faculty level (SA).

Weaknesses

- Individual researcher budget control – very large number of research accounts.
- Relatively poor record in large external grant applications.
- Overall lack of ambition to create/lead/participate in consortia that would be internationally competitive.

Recommendations

- Rationalise number of research accounts.
- Align funding with more structured interdisciplinary research themes.
- Consider institute level shared core grant-writing resource.
- Develop five-year funding strategy to induce EU grant applications.
- Enhance engagement with industry as funding source.

B5. Feedback and evaluation

Department of Surgery

Strengths

- Departments of Surgery, Gastrosurgical Research and Education, Plastic Surgery, Urology and Transplantation provide excellent clinical service for the city of Gothenburg, the region and beyond. Individual sub-specialties are recognised as centres of excellence within Sweden and internationally. Each department has an academic lead and there is a commendable ethos of teaching and research with the expectation that all staff will participate. All clinical trainees are encouraged to undertake research. Most register for part-time PhD studies.
- The SU Hospitals support this ethos by ring fencing approximately 2% of the hospital budget for academic purposes. This is a very strong endorsement and valuable resource. The decision to invest these funds by employing research nurses is pivotal in support of population bases outcome studies and clinical trials.
- The Department of Surgery has committed academic leadership. Each sub-specialty has a portfolio of clinical and population-based studies. Translational research is supported by 10 research groups have been established that work beyond the boundaries of the clinical subdivisions.
- There is commendable commitment to undergraduate teaching.

Weaknesses

- The complexity of the Department of Surgery with its several semi-autonomous sub-specialty divisions across two hospital sites leads to loss of thematic focus, duplication and dissipation of effort.
- There is a noticeable gap in mid-career academic positions – too many of the

senior academics are over the age of 60. While there are plans to recruit new faculty, these do not seem to be proactive.

- The clinical trainees and junior faculty have a very high level of job security. This degree of academic ‘comfort’ does not challenge individuals to excel.
- With notable exceptions the success in external research grant application is modest and should be addressed.
- Publications in general have been in moderate- to low-impact journals. A focus on smaller volume but higher impact is needed.

Recommendations

- The current organisation of the academic Department of Surgery should be reviewed. The current alignment of sub-specialties within Surgery, while Urology, Plastics and Transplantation remain academically separate is not sustainable.
- A five-year research strategy should be developed to identify key areas of expertise and translational potential.
- The clinical PhD programme needs to be re-evaluated to promote and fast-track potential academic leaders of the next generation.
- Recruitment of the next generation of academic leaders needs to be prioritised and appointment of those trained outside UGOT should be promoted.

Department of Plastic Surgery

Strengths

- Small department with excellent clinical outcomes.
- International reputation in craniofacial surgery with a unique registry of patients treated since 1957.

Weaknesses

- Too many research projects, reflecting individual clinical interests.
- Absence of a clear academic recruitment and funding strategy.
- PhD projects evolve over time without clear career development.
- External research funding needed to improve academic output.

Recommendations

- The department has improved greatly since RED10 but now needs to make strategic planning on career development in order to sustain development.
- The department must decide its research priorities and channel resources appropriated to generate impactful research that will attract external funding.

The department must develop interdisciplinary research protocols with the new Breast Cancer Centre and the Metabolic Surgery group. It must make clear career plans for those currently undertaking research and succession plans for those due to retire in coming years. The department should strive to attract external funding and take advantage of large and unique patient materials.

Department of Urology

Strengths

- This is a flagship department within SA with a strong research portfolio, international recognition and significant external research funding.
- Strong international research collaborations have been established. High-impact research publications have emanated from the research.
- There is a translational research programme with potential to inform drug discovery in prostate cancer. Early work in stem cell and regenerative techniques is ongoing.
- There is a strong undergraduate teaching programme.

Weaknesses

- Relative absence of mid-career academic leaders.
- Excess reliance on population studies regarding screen for prostate cancer. It remains to be seen if this will be adopted by national or regional health services.

Recommendations

- Formulate a five-year research strategic research plan.
- Develop academic succession plan to ensure continuity of current population studies.
- Build on current international collaborations, to include Marie Curie type exchanges and clinical fellowship.
- Ensure relevance and productivity of the statistical and population sciences research group within the department.

Department of Transplantation

Recommendations

- Address current disharmony in the department, and that between the academic and clinical transplantation units.
- Succession planning urgently required.
- Research priorities need to be agreed.
- Establish sustainable external funding for collaborative research with Lund University.
- The current arrangements for resectional liver surgery should be reviewed and consideration given to integrating with pancreatco-biliary surgery within the Department of Surgery.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The Sahlgrenska Cancer Research Centre offers a valuable interdisciplinary translational platform that is available to several research groups reviewed.
- There are early contacts with Chalmers with regard to bio-engineering in Plastic Surgery, Urology and Transplantation, with an opportunity for interdisciplinary development of research.
- The Department of Plastic Surgery is a national lead in the fields of craniofacial and cleft surgery.
- The Scandinavian Surgical Outcomes Group has established a strong research outcomes network.
- Within Urology there are numerous collaborations within Sweden (PIONEER) and Europe (ERSPC/London, Cambridge).
- The Trauma Centre Group have strong contacts with the Swedish Defence Forces and also internationally with UK and South Africa.
- The melanoma group is a national referral centre for advanced malignancy. A strong translational research platform will facilitate external research contacts.
- The endocrine and sarcoma surgical group are a national referral centre for advanced malignancy. A strong translational research platform will facilitate external research contacts.
- The Department of Transplantation has the clinical volume to participate in good clinical trials. The panel did not have the opportunity to assess current activity. There are innovative research ideas that have potential.

Weaknesses

- Organisational complexity and absence of a cohesive research strategy.
- Separation of Department of Surgery on two hospital sites.
- With some notable exceptions, overall modest interaction with other national and international units.
- Multiple small research initiatives unlikely to lead to external collaboration.
- Majority of clinical researchers have trained exclusively at UGOT.
- Relative absence of mid-career academic clinicians likely to establish fruitful external collaboration.
- The misconduct issue continues to affect the transplant unit.

Recommendations

- Develop a clear research strategy focusing on major themes.
- Review of various research supports and basic science platforms to ensure efficient usage and avoidance of duplication.
- Recruitment of key academics with training and contacts outside the Västra Götaland region.

C1.2 Collaboration with external stakeholders

Strengths

- The patient-derived explant research has considerable potential for drug development and study of personalised medicine.
- The large databases available provide a unique resource that could be leveraged in major external grant applications.
- Funding for the trauma centre will be supported by the Swedish Defence Forces.
- Department of Gastrosurgical Research and Education has had substantial external funding from pharma. With their new focus on metabolic surgery opportunities again arise.

Weaknesses

- Relatively poor success rate in securing EU and other major external funding.
- With notable exceptions relatively little international collaboration.
- No discernible policy on clinical / research fellowships with external institutions.
- Modest collaboration with industry.

Recommendations

- Develop a funding strategy as part of an overall five-year academic / research plan.
- Consider establishing a grant submission / grant-writing support unit within the institute.
- Consider developing formal research linkages with Chalmers and Lund Universities with defined governance and objectives.

C2. Relevance and impact on society

Strengths

- Excellent surgical services delivered to the Västra Götaland region provide a rich source of clinical information that may inform regional / national health policies.
- Translational research programmes in several departments, particularly leveraging tumour explant models to inform personalised therapy for advanced malignancy.
- The craniofacial and cleft surgery programme has guided progress in treatment nationally and internationally.
- A focus on patient outcomes following surgery will inform clinical and patient decisions in the future.

Weaknesses

- Little evidence of a communications strategy.
- Poor and out-of-date websites that should be a portal for patient communication.

Recommendations

- Concentrate resources on areas of clinical excellence, collaborate with other departments within the institute and externally to create research programmes

where the unit can source funding that facilitates data generation that will impact on society.

- Develop, update and improve websites in both Swedish and English.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Strong research ethos.
- Clear engagement in undergraduate teaching.

Weaknesses

- None identified, however only Urology formally presented data on undergraduate education.
- There did not appear to be any master's programmes.

Recommendations

- Encourage Erasmus type external study during the undergraduate programme and Marie Curie experience during postgraduate studies (neither programme was mentioned during the panel review).

C3.2 Doctoral education

Strengths

- Strong research ethos.
- Large number of clinical PhD students.

Weaknesses

- Poorly structured clinical PhD programme. Clinical demands dictate that PhD studies are extended for six to 10 years.
- Poor formal work package planning.
- Variable level of academic supervision.

Recommendations

- Restructure clinical PhD program with finite duration of study.
- Expose PhD students to a more rigorous academic environment.
- Consider appointing Institute Dean of Graduate Studies.
- Encourage research / clinical exchange fellowships.
- Consider link with Swedish National Medical Bioinformatics Graduate School.
- Encourage Marie Curie / external clinical fellowship experience during PhD studies.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- Embedded research ethos with expectation that all clinical staff participate.
- Academic leads in each department and sub-department.
- Large number of clinical trainees encouraged to undertake PhD studies.
- Commitment to undergraduate education.
- Experienced senior academic faculty.
- Recent appointment of Professor Peter Naredi and Professor Eva Angenete to senior academic positions.
- Research nurses integrated in clinical units.

Weaknesses

- Diversity of research themes.
- Relative absence in multidisciplinary research programmes.
- Poorly structured clinical PhD programmes with varying academic oversight.
- With notable exceptions modest external engagement.
- Relatively few mid-career clinical academics.

Recommendations

- Appoint mid-career clinical academics.
- Encourage external / international exchange.
- Institute a regular programme of clinical research seminars.
- Formalise academic mentoring and appraisal.
- Develop resources to support grant-writing and application.
- Formally recognise academic success.

D2. Publication

D2.1 Publication strategy

Strengths

- Overall publications benchmark with peer institutions.
- Small number of outstanding publications.

Weaknesses

- A formal publication strategy was not articulated during review.
- Unclear if high-impact publication increased internal resource allocation.
- Unclear if UGOT bibliometrics captured all relevant SA publications.

Recommendations

- Develop formal publication strategy.
- Institute-level support for writing and statistical input.
- Reward high-impact publication through cyclical appraisal.

D2.2 Analysis of bibliometric data

These data are not shown at unit level and output might be wrong since the data provided are from the university webpage. It is likely that much of the output from affiliated clinical researchers has not been captured.

D3. Facilities and research infrastructure

Strengths

- Excellent academic facilities – office space, conference rooms, library, IT.
- High-quality translational research facilities at Sahlgrenska Cancer Centre.
- Access to animal research facilities (not inspected during review).
- High-quality population science unit (Urology).
- Outstanding access to patient registries.

Weaknesses

- Infrastructure siloed in individual departments or sub-departments.
- Unclear policy regarding allocation of resources and access to infrastructure.
- Separation of facilities across two hospital sites.
- Possible duplication of infrastructure / research support.
- Absence of formal collaborative agreements with Chalmers and Lund Universities.
- Uncertainty regarding GDPR compliance.

Recommendations

- Institute cyclical formal review of research facilities, usage and access.
- Develop institute-level support for population studies, grant-writing and publication support.
- Establish formal collaborative agreements with external bodies.
- Review GDPR.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The unit reports that it tries to support all employees. The leadership has both male and female representatives.

Weaknesses

- The lack of mid-grade career advancement opportunities affects the academic atmosphere but this appears to affect all equally.

Recommendations

- See previous sections in terms of building an academic environment.

D4.2 Internationalisation

Strengths

- Some external recruitments have been made.
- Opportunities to travel and take courses abroad.
- Collaboration through international consortia – notably in Urology.

Weaknesses

- Few academics have been appointed from outside UGOT or Västra Götaland region.
- Few clinicians have a longer academic period outside Västra Götaland region.
- Disappointing level of international engagement given strong international reputation.

Recommendations

- Stimulate PhD students to consider clinical and academic postdoctoral studies abroad.
- Foster research collaborations with international groups.
- Look to create consortia to apply for international research funding (Horizon 2020 etc.).

SECTION E – SUPPORT

E1. Internal research support

Strengths

- Strong research ethos.
- Funded research nurses in each department.
- Excellent academic facilities – office space, conference rooms, library, IT.
- High-quality translational research facilities at Sahlgrenska Cancer Centre.
- Access to animal research facilities (not inspected during review).
- High-quality population science unit (Urology).

Weaknesses

- Infrastructure siloed in individual departments or sub-departments.
- Potential for duplication of infrastructure / research support.
- Unclear policy regarding allocation of resources and access to infrastructure.
- Separation of facilities across two hospital sites.
- Absence of formal PhD mentoring and assessment.

Recommendations

- Develop a five-year research strategic plan.
- Formalise PhD mentoring and introduce annual appraisal.
- Introduce cyclical research QA/QI across departments with annual review.
- Support and incentivise grant-writing and application.

E2. Faculty and University-wide support

Strengths

- High-level ambition to become a research-intensive university.
- SMT awareness of current shortcomings.
- Strong university-level research office and grant application support.
- Large PhD programmes.

Weaknesses

- Absence of faculty / institute-level strategic research plans – failure to focus on excellence.
- Excessive delegation of responsibility and planning to departments.
- Too many diverse research interests.
- Communication gap between departments and central university.
- Minimal oversight of clinical PhD students.

Recommendations

- Establish university research vision and develop implementation plan.
- Communicate strategy to implement vision.
- Allocate specific implementation tasks within university and faculty / institute senior management.
- Review implementation progress quarterly.
- Ensure access to grant-writing and application support is available to each department.
- Review clinical PhD programme – structured application, mentoring and annual progress appraisal.
- Encourage / facilitate / grant support external sabbaticals.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The RED10 review identified the many strengths but also the weaknesses of the departments that the panel reviewed. To a large degree the strengths remain – strong research ethos with a large number of clinical PhD students, large databases with access to patient registries, however many of the deficiencies identified have not been addressed as recommended in the RED10 report.

General comments

The RED10 review recognised the ambition of the institute to become a ‘leader in sciences’ through implementation of the 2009–12 UGOT strategic research plan by:

- Increasing international recognition of the research performed.
- Promoting innovative and interdisciplinary projects of a high standard.
- Improving a common infrastructure for research.

- Fostering national and international collaboration.
- Developing strategic alliances with other higher education institutions.
- Recruiting from outside the University of Gothenburg.
- Instituting PhD committees that meet with the student once a year with external membership where a department has only a few professors.
- Examining the methods used to recruit PhD students, within and from outside the university to make the university's activities, programmes and opportunities more visible at national and international levels.
- Fostering scientific exchange among academic staff.

The panel found that with some notable exceptions there had been little progress in the areas identified for improvement. External engagement remains modest other than through national registry data research. The clinical PhD pathway is unsatisfactory and key research goals have not been defined.

Department of Surgery: rated *good*, 3/6 in RED10.

The recommendations for improvement were:

- Define key research goals and strategy over the next five years.
- Develop plans for succession related to current group leaders.
- Deepen collaboration with the clinic and the clinical trial unit.
- Scrutinise the research value obtained from clinical trials.
- Actively seek novel national and international collaborations.
- Improve the English versions of the websites.

The department has set itself the goals:

- To establish a translational clinical research platform within the surgical oncological field, especially within breast, pancreatic, colorectal and liver cancer.
- To continue to establish and enforce a scientific mind-set in the clinic.

The Sahlgrenska Cancer Centre has been established and provides an excellent platform for translational research. The centre is separate from the Department of Surgery and is accessed by researchers from across the campus. The Sahlgrenska Translational Melanoma Group (SATMEG), the breast cancer and pancreas and liver tumour research groups have ongoing translational research programmes supported by the centre. It will be challenging to develop the complementary bio-informatic expertise needed to facilitate personalised cancer treatments.

The Scandinavian Surgical Outcomes Research group focuses on large-scale clinical trials and patient reported outcomes.

There is an embedded research ethos, however the clinical PhD programmes remain problematic as detailed elsewhere.

External collaborations remain modest as do successes in obtaining EU-level grant funding.

The English version of the department website is poor.

Rating: *very good*, 4/6

Department of Gastrosurgery and Education: rated *very good*, 4/6 in RED10.

The RED10 recommendations for the Department of Gastrosurgery and Education were:

- Define a clear five-year strategy, which will provide a plan for expansion, new recruitment and an improvement in departmental infrastructure.
- Foster multidisciplinary research.
- Engage more clinicians in the goals and aims of the department.
- Develop an English version of the website.

Since the RED10 review, the capacity of doing experiments on human material has been overtaken by rodent-based research. The department has had to completely refocus its research such that the main current aim is to investigate the interaction between the gastrointestinal tract, weight and metabolic control. The long-term goal is to make obesity surgery obsolete replaced by an anti-obesity pill. The department is soon to merge with the larger Department of Surgery.

The website is excellent.

Overall rating: *good*, 3/6

Department of Plastic Surgery: rated *insufficient*, 2/6 in RED10.

The RED10 recommendations for the Department of Plastic Surgery were:

- Define better and more limited research goals.
- Consider integration with the main surgical sciences section.
- Deepen collaboration with the university's Department of Biomaterials and Department of Orthodontics.
- Define relationship with private plastic surgery.
- Actively seek novel national and international collaborations.
- Promote interdisciplinary research.
- Create a website.

The department has developed significantly since the RED10 evaluation. There now are many – probably too many – research lines in several clinical sub-divisions. There are too many PhD students. The unit needs to focus and condense into

fewer research programmes and to make strategic decisions on which research programmes can be maintained.

The unit needs to aim at publishing in higher-impact journals and to write and obtain external funding, as all research is currently funded from the clinical budget. All PhD students are clinicians and for some projects full-time PhD students could enhance the output but in order to fund such external grants are needed.

The English website is empty.

Overall rating: *good*, 3/6.

Department of Urology: rated *very good*, 4/6 in RED10.

The RED10 recommendations for the Department of Urology were that it should:

- Develop its role as a leading centre for prostate cancer research.
- Deepen collaboration within areas such as functional studies and hereditary causes of prostate cancer.
- Provide an overview of key aims and links between the groups (e.g. screening/ biomarkers and epidemiology/clinical studies).
- Develop an attractive, research-directed website.

The department continues to develop its role as a leading centre for research into prostate cancer. Studies on active surveillance and the epidemiology of prostate cancer are major regional and national undertakings which have resulted in more than 100 publications since 2010.

Other prominent areas of research are the mechanisms important for male continence following prostatectomy, potential benefits of robot assisted radical prostatectomy and the potential for regenerative medicine to treat urethral injury. There is an embedded research ethos. However the clinical PhD programmes remain problematic as detailed elsewhere.

The English version of the department website is poor.

Rating: *excellent*, 5/6

Department of Transplant Surgery: rating not found in Institute of Clinical Sciences' RED10 report.

The clinical unit, the transplantation centre, has several strong research projects and groups but most are affiliated to the Institute of Medicine. The major research areas are organ preservation and tissue engineering by Professor Michael Olausson and Professor Suchitra Holgersson. There are ongoing difficulties in progressing this research referred to elsewhere.

Rating: *unable to assess*.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

The panel wishes to congratulate the faculty and PhD students with whom we interacted on their achievements, collegiality and commitment to academic surgery. Detailed comments and recommendations are provided in the foregoing sections.

The panel wishes to make the following concluding recommendations:

- Focus on research themes with most potential for high impact research.
- Seek internal / external collaborations to obtain critical mass.
- Introduce cyclical research QA/QI across departments with annual review.
- Fill critical mid-career level vacancies.
- Aim for at least 50% external recruitment to key positions.
- Reform the clinical PhD training pathway.
- Expose PhD students to a more rigorous academic environment.
- Consider appointing Institute Dean of Graduate Studies.
- Encourage research / clinical exchange fellowships.
- Link with Swedish National Medical Bioinformatics Graduate School.
- Be ambitious for EU funding.
- Establish institute-level support for grant-writing and application.
- Develop institute-level support in bioinformatics and population health.
- Realign hepatic surgery with biliary and pancreatic surgery.
- Resolve disharmony within Department of Transplant Surgery.

CLINICAL SCIENCES PANEL 3 – RADIATION PHYSICS; RADIOLOGY; ONCOLOGY; DERMATOLOGY; OTORHINOLARYNGOLOGY

768	Introductory Remarks
768	Section A – Background and Research Standing
768	A1. Background
768	A2. Research standing
769	Section B – Leadership
769	B1. Leadership
770	B2. Recruitment
771	B3. Career structure
771	B4. Funding
772	B5. Feedback and evaluation
773	Section C – Complete Academic Environment
773	C1. Collaboration
774	C2. Relevance and impact on society
774	C3. Research-teaching linkages
776	Section D – Academic Culture
776	D1. Academic culture
776	D2. Publication
777	D3. Facilities and research infrastructure
778	D4. Transverse perspectives
779	Section E – Support
779	E1. Internal research support
779	E2. Faculty and University-wide support
780	Section F – Other Matters
780	F1. RED10 evaluation
780	F2. Other matters
780	Concluding Recommendations

INTRODUCTORY REMARKS

This panel reviewed a section of the Institute of Clinical Sciences that comprises departments with a very broad range of scientific topics, ranging from advanced radiophysics to new developments in dermatology. Therefore, our main focus was the academic milieu and support to frontline science, rather than research content-based discussions.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The section has hitherto a very decentralised structure without a section board with the remit of academic leadership. We strongly support the emerging plans of a stronger section leadership with the goal to increase collaboration, strengthen overall research strategies, protect resources, manage training of younger colleagues and recruitment.

The same decentralisation is also present on the departmental level where the groups seemingly work quite independently. In parallel with achieving a stronger academic leadership on the section level and a strategy for collaboration and developing a strong section, the department strategy should be made clearer (see below about visions).

A2. Research standing

Strengths

- The departments have many excellent researchers and projects, some of international high standard, others of strong Scandinavian and national standing.
- There are several examples of strong collaborations with Chalmers University of Technology and the Sahlgrenska Cancer Center.
- In general, there is very good support from the clinical departments/the hospital and research is acknowledged as being central to the profile of the university hospital.

Reflections

- We noted that the very decentralised structure seems to characterise the whole faculty in terms of research strategy leading to an almost “atomistic” way of working. The research standing could probably be considerably strengthened by increased internal collaboration within the section and the faculty.
- Some of the strong strategic and very good collaborations with e.g. Chalmers could be more coordinated; we had the impression that there was work in parallel of similar type (e.g. around AI). A more coordinated effort would lead to a stronger international and national position.

- While some of the individual research teams had concrete and good strategic plans in their own area, actually no department or the section had a united vision of the immediate or long-term future. We think a concrete plan is necessary for securing future strong research standing. We realise that the heterogeneous composition of the section, ranging from Radiation Physics to Dermatology/Otorhinolaryngology, will be a challenge when forming a vision on the section level – but it could be formed in terms of striving for academic excellence, promoting recruitment etc.
- In line with the lacking vision, there was an ambiguity whether to focus on few, outstanding projects or to broaden the scope of research into many more areas. In the present situation of Swedish healthcare plans of far-reaching specialisation and centralisation, this is a key question to address to be able to secure prominent positions nationally and in Scandinavia.
- This panel does not have the competence to penetrate the details of the subject matter of the departments. However, our reflexion is that in view of the many excellent persons and groups in the section, and the partly outstanding Core Facilities at the faculty, the section plays somewhat under its strength looking at publications and their share of nationally and internationally available grants. More focused visions and extended collaborations may play important roles here.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department/section leadership

Strengths

- There is a strong culture to be independent and take large responsibility for one's own research group and there are many strong leaders forming groups at the department level.
- This in turn allows for creative work in the groups and there is no unnecessary micro- management.
- A section lead group is presently formed.

Weaknesses

- The interaction between departments is weak although there are several important common themes.
- The interaction so far is of an administrative character rather than fostering academic leadership.
- Leadership in terms of academic vision is present only within research groups.

Recommendations

- As is proposed in the self-evaluation: form a board for the section with the remit to discuss research, training and recruiting strategies.

- Promote an academic leadership over and above just an administrative unit.
- Make use of an interaction between strengths in the different departments and turn their different competences into a capacity.
- Formulate clear visions and strategies as concrete 5-year action plans both at departmental and section level. The plans should include grants, personnel, overall research strategies, but avoid micro-managing.

B1.2 Faculty/University level leadership

Strengths

- There is in general a definitive drive and ambition to be a very strong university internationally and nationally. Several plans and documents are in place for this.

Weaknesses

- The impression is that the presence of a university or faculty academic leadership is almost totally absent at the section and department level.
- There are some indications in the self-evaluation that the line of communication with the university and/or faculty is disturbed by rigid bureaucracy.

Recommendations

- A better line of communication between the faculty level and departments needs to be established.
- The academic leadership from the faculty level needs to be more present and clearer.
- In terms of academic leadership for research, the roles of the different levels of the university – faculty, institute, section, department – need to be clarified. It was mentioned that there is a better clarity and vision for this when it comes to education, so this would possibly be a model to look at.
- The strategies need to be expressed more in terms of how and when – what do the present visions require in terms of action on a departmental level?

B2. Recruitment

Strengths

- The departments have many strong groups and leaders and there should be a good basis for recruitment.
- The departments teach on several levels. Thus, contact with students should make it possible to recruit young talents.
- There seem to be no major financial obstacles when it comes to recruiting PhD students or offering a postdoc career.
- There are examples of successful recruitments in e.g. Radiology and Oncology.
- There are good plans for a number of key recruitments.

Weaknesses

- A concrete recruitment strategy tied to career development (see below) is lacking.
- There is not a full alignment between recruitment aspirations on the depart-

mental level and the priorities of the institute or faculty.

Recommendations

- A concrete recruitment strategy tied to career development is needed (e.g. to recruit talented postdocs or senior researchers that can be developed into full professors).
- Utilise the possibilities to build strong recruitment ground by building creative collaborations between the departments.
- Develop strategies to recruit from the student level: e.g. create small projects, invest time in coaching students in projects.
- Agree more clearly between the department, section and institute levels on what the priorities for recruitment are, and give mutual support in recruitment.

B3. Career structure

Strengths

- For PhD candidates there are e.g, formal requirements for mentoring and advising on career paths.
- There is a very positive attitude from the hospital to recognise research activity and promote scientifically-active clinical staff.
- For some of the departments there are many who “knock on the door” to come and work with the department.
- For the reviewed departments the balance of male/female leaders looked fair.

Weaknesses

- Broader discussions about principles for career development and principles of career structure are absent.
- Very few of the PhD candidates, postdocs, and younger clinical researchers had been mentored or advised concerning their personal career.
- There was great uncertainty regarding what a clinical researcher’s postdoc and career path to associate professor should look like. This may be a strategic weakness given that in several fields internal training and fostering of talents and leaders may be crucial to upholding high standards.

Recommendations

- Form plans on the faculty and sectional level to make clear career paths for young researchers.
- Formalise mentorship, with career support as one of the components.
- Clearer long-term strategies are needed regarding gender issues and equal opportunities in career development.

B4. Funding

Strengths

- There is evidence that the departments have the resources and competence to compete for funding on a high level. In addition, the university and Sahlgrenska

Academy have some outstanding core facilities, which makes the departments competitive.

- A positive impression was also that the “funding stress” was moderate or low, which indicates that there are good platforms for most of the groups.
- There is a Grants Office, of which several groups have had good experiences. Likewise, there were mostly good experiences of Gothia Forum (especially after they had adjusted their price tag for help).

Weaknesses

- Our impression is that the departments have fewer national and international grants than is deserved, i.e. there is a substantial capacity to compete for grants that is not utilised. We find it hard to believe that there is a general “anti-Gothenburg bias” that would explain this, so most probably too few applications are written or not enough time is spent on the applications to make them top-notch.
- Some departments found that the overall financing of research was not entirely transparent.
- There is no strategy what the most successful approach versus large funding bodies, e.g. VR, CF, EU, etc. would be.
- All groups were not clear over what the Grant Office can offer.
- There was as a general feeling of that the Grants Office was not entirely up to date with the latest regulations and legislations when it comes to large EU grants and that the office would not be able to effectively support a University of Gothenburg (UGOT) unit as a PI on an EU grant.

Recommendations

- Create more incentives/rewards for bringing in large grants.
- Use grant-writing seminars on the section level.
- Learn from rejections and let fellow scientists from other groups read grant proposals to get input and feedback.
- Support from grant offices at the faculty level is important for complicated grants like EU, and strategy for major EU grants should be built.
- Build on new collaborations in the section/at the faculty for grant-writing.
- Mentor less successful applicants.
- Faculty-level discussions on strategy towards major funders: how can UGOT gain a strong presence in competing for major grants?
- Make the financing of research transparent.

B5. Feedback and evaluation

Strengths

- There is feedback on the level of research groups – and sometimes on the level of department.

Weaknesses

- There is little strategy for feedback and evaluation, and it does not seem to be acknowledged as a very important tool in fostering research, teaching and

recruitment. E.g. to uphold effective career and recruitment, feedback and evaluation is crucial.

- There is no strategy for feedback on the sectional or institutional level e.g. in terms of leadership, grant-writing etc. on more of a “meta-level” than e.g. individual feedback on a project or manuscript.

Recommendations

- Make clear that feedback and evaluation is a central part of leadership, quality assurance and quality improvement.
- Make feedback and evaluation a routine on several levels.
- Invoke strategies for feedback and evaluation especially in training, career development and recruitment.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Departments and groups have collaborations on several levels and of different types.
- There are incentives from the section to promote collaborations.
- Notably there are some strong collaborations with Chalmers and with EORTC.

Weaknesses

- While there are many collaborations with the UK and US, there are few with Europe and Asia.
- From this section, collaboration with other Swedish universities is sparse.
- There is little exchange of PhD students, postdocs and senior researchers.
- Some collaborations would probably benefit from discussion on the section or institute level (and even higher levels) for coordinating and maximising benefit: e.g. the collaborations with Chalmers involving advanced computing.

Recommendations

- Students/postdocs/researchers.
- Search possibilities for joint funding between the departments – but also with external collaborators.
- Search for even more collaborations in Europe and Asia.
- Idem for collaboration with Swedish universities.
- Idem for collaboration with Chalmers on all levels.

C1.2 Collaboration with external stakeholders

Strengths

- Many collaborations in place: the departments in this section have competence and access to patients and data of great interest for external stakeholders.
- Strategies with adjunct scientists seem to be working well for most departments.
- There is support on the university level for legal issues, contracts, IP issues etc.

Weaknesses

- It is unclear to the panel whether there is an overall awareness of how these collaborations are progressing and how large the contracts are. They seem to be carried out very much on a project base, and benefits and knowledge that could be used across the section may be missed.
- The support on the university level, albeit professional and good, was sometimes felt to be too distant from the medical field to be of best use.

Recommendations

- Promote an understanding of the potential to land larger contracts with external stakeholders by more freely sharing experiences.
- Create positive examples.
- It could be discussed whether faculty-, and not only university-, level support is needed for contract-writing, IP management etc.
- Create continuous follow-up on the development of external collaborations.

C2. Relevance and impact on society

The section as a whole has a research agenda and ongoing projects that to a very large extent are coupled directly to clinical activity and, e.g. in radiation physics, also are related to more general environmental protection. There is no question that the leadership supports such a strategy and that the strategy directly – and also in a relatively short-term perspective – influences care and policy-making. Results are rapidly made available for others via collaborations and the participation of key personnel in national and international boards.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Many researchers are involved in teaching and research results are fed into the curriculum.
- In general, a very positive attitude towards teaching and good experience of combining teaching and research.
- The message that teaching is important for one's CV has penetrated well.
- There is a clear sense of a vision for teaching set by the faculty.

Weaknesses

- PhD students and postdocs in groups that conduct research more towards basic science find it hard to find teaching tasks.

Recommendations

- Encourage teachers to meet and exchange experiences.
- If appropriate, organise seminars on improving teaching skills.
- Make sure that the faculty vision for teaching is well known.
- Support younger colleagues in more lab-based activity to find teaching opportunities.

C3.2 Doctoral education

Strengths

- There is a broad activity in PhD training and many senior PIs are willing to supervise.
- PhD courses are available and the newly-formed “*Forskarskolan*” for clinical PhDs is a very good development.
- There is a clear routine for PhDs to follow if there is a complaint about mentoring or facilities.

Weaknesses

- Despite the PhD training courses, the PhD programme still seems loosely structured and nearly entirely dependent on the individual supervisor(s).
- Some courses are difficult to get access to within a reasonable time – and for some PhD students many courses come too early. Thus, there is no structure for the timing of courses.
- There is no clear routine for structured feedback and evaluation or career advice during the training courses.
- Very few of the PhD students this panel met were recruited: nearly all of them had to actively approach the research group to start a PhD. This may reflect the fact that we only met a selected group, but could also be a symptom of a lack of incentive for taking on new PhD students, or that the research groups are generally overburdened with PhD students.
- Several of the part-time PhD students, especially the clinical ones, experienced that it was often difficult to protect research time.
- There is no PhD forum in the section.
- With the exception for radiation physics, PhD students for professionals other than MDs are limited.

Recommendations

- More structured programme for PhD students regarding timing of courses.
- Training and seminars for supervisors regarding feedback, evaluation and career advice.
- Analyse and oversee the recruitment of PhD students.
- Protect research time for PhD students.
- PhD students to meet and discuss methods issues, publication strategy, inform about their own research, which may foster collaborations etc.
- Broader recruitment of PhD students from all central professional groups.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- Ethics and integrity are discussed. They are also part of the curriculum for PhD students.

Weaknesses

- Somewhat limited picture of the academic culture in the self-evaluation: it is not only about ethics and integrity but also generally promoting academic excellence. (Comment: The information might be limited due to the limited space available and the specific questions about ethics and integrity, but initially we stated that the different aspects of academic culture are handled at the department level by various seminars etc.)
- The lack of communication between the university, faculty, institute and section levels means that the university vision for academic excellence is unknown and not visible at the department level.

Recommendations

- It would appear that these questions lie within the remit for the intended section board. However, for these issues the section board will need the support of a clear vision of academic excellence from the faculty and the institute – a vision that is currently not fully known at the departmental level.
- Promoting ethics, integrity, and academic excellence should be established as a recurrent theme in training, grant-writing support, recruitment etc.

D2. Publication

D2.1 Publication strategy

Strengths

- There is an emerging understanding of the importance of these issues and the section has pointed out some concrete improvements in the self-evaluation document.
- The main trend is tim for high-impact publications and open access.

Weaknesses

- The publication strategy is like many other more strategic questions, discussed only on the department – and most often probably even on the research group level.

Recommendations

- Discuss publication strategies at the institute level.
- Junior as well as senior colleagues should participate in medical writing courses (organised by UGOT or those available nationally or internationally).
- Faculty- or institution-wide system for following up on publications –

and discuss the section's follow-up results once a year.

- An impression is that the section publishes somewhat “under” what should be possible given its competence and the Core Facilities. Measures should be taken to aim for publishing in higher ranked journals perhaps by identifying key high-quality projects.

D2.2 Analysis of bibliometric data

We acknowledge that bibliometrics has many difficulties and weaknesses as a tool for evaluating research activities, in particular as this department is of a heterogeneous composition with a high degree of specialisation, and considering that the top journals within the specialities have very different impact factors. This fact makes comparison of bibliometric data on the department level problematic. Nevertheless, it reflects the output end of the whole research process and may generate some thoughts over and above what is said on other aspects of the process.

Strengths

- On an overall level, benchmarking relative to Sweden and Scandinavia is good for clinical science and with an increasing number of publications. The section similarly has an increasing output. Output level is high for Oncology and Radiation Physics.

Weaknesses

- No recurrent systematic evaluation of bibliometric data.
- No systematic evaluation of bibliometric data on the faculty level.
- Seemingly an underreporting of published clinical papers.

Recommendations

- This panel favours output of high-quality, highly informative and original papers over volume and thus support the intended strategy.
- There may be instances when very good research does not yield good publications if not enough attention is put on medical writing: e.g. younger colleagues do not get enough training in medical writing or enough support from their peers, or too little time is spent reporting (e.g. time is rushed for PhD theses publication) etc, and the departments and section could review these processes in relation to publication strategy.
- There should be a systematic approach to repeatedly discussing bibliometric data.

D3. Facilities and research infrastructure

Strengths

- UGOT and Sahlgrenska Academy have many outstanding core facilities.
- The core facilities are not only technical equipment, but also data in terms of huge, very important registers.
- In an international as well as a national context, the section is very well equipped.

Weaknesses

- Some important core facilities are lacking; a more universal IT support for data capture on the clinical side; a more universal computing facility for BIG data and AI development; a small animal imaging centre; a research PACS.
- For some core facilities there is a mismatch between equipment and personnel, e.g. there is a cyclotron, but no professor in radiochemistry, there are no professors in MR physics or external radiotherapy physics.
- Some core facilities, for e.g. radiology, are difficult to access (e.g. equipment needed for research such as MR scanners) at reasonable times and hours due to clinical demand.
- Lack of statistical and bioinformatics support for many groups.
- The Grants Office is not equipped to support a UGOT investigator as a PI on an EU grant.

Recommendations

- The section should raise these issues and needs to the institute and faculty levels when discussing funding and priorities: include in a strategic plan.
- Raise the need of correcting the mismatch between access to equipment and competence.
- Priority discussion with the clinical departments.
- During the process we have learnt that there is a bigger plan for building advanced computer facilities together with Chalmers: there is a strategic need to make the plan clear and sufficient for medical purposes, to avoid groups developing smaller, ineffective programmes on their own.
- Discuss on the institute level co-funding for statistical and bioinformatics support that is near to the different research groups and that can interact with projects from planning to publishing.
- Strengthen the Grants Office support.
- Maximise the use of core facilities in grant- and report-writing.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- There is awareness of the bias and unconscious bias problems.
- An action based on material from the UK is planned.

Weaknesses

- The perspective of handling unconscious bias, gender issues, equal opportunities seems to be discussed in isolation and does not infuse the section/ departments levels.

Recommendations

- The perspective of handling unconscious bias, gender issues, equal opportunities needs to be present on all levels of the activities.

D4.2 Internationalisation

Strengths

- Many international collaborations to build on.

Weaknesses

- Little space and funding to set an exchange programme of visiting scientists rolling.

Recommendations

- The idea forwarded in the self-evaluation to create lab-spaces/offices devoted to visiting scientists and to support joint grant-writing with other universities is sound.
- Utilise postdoc exchange systematically – being both on the “sending” and “receiving” end.
- Utilise possibilities for joint grant funding with international collaborators; contemplate EU grants.

SECTION E – SUPPORT

E1. Internal research support

We believe that we have commented fairly extensively on the support of the research environment above. This panel sees three important strategic questions for the section:

- Form a section board with the remit to create a strong academic leadership.
- Increase internal collaboration between departments to strengthen not only research and funding but also to send strong signals to the institute level.
- Create a three to five-year vision for the section.

E2. Faculty and University-wide support

Likewise, we think that we have commented on many issues above and we stress some of the issues here:

- The university and faculty level need better communications with the institutes, sections and departments to build a strong academic leadership.
- For some core facilities such as cyclotron, research PACS, and small animal imaging, a development plan is needed.
- As for the section and departments, a clear vision should be in place.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The five points are very general and we find it difficult to comment on the extent to which the section or institute has delivered on the recommendations. It is however clear that they in many respects touch upon what has been discussed above.

F2. Other matters

There are two important developments in Swedish healthcare that have bearings on research for which we have not found a related research strategy. First, there is going to be a substantial centralisation of specialised services, meaning all university hospitals need to think about what they are really good at and to also, of course, have very strong research profiles in fields where they want to be a Swedish centre. Second, there will also be a strong development of primary care – some specialists will have to work in the big hospital and at the same time consult in primary care, opening new avenues of research (and of patient recruitment to trials). Both these developments will be important for the departments in this section.

CONCLUDING RECOMMENDATIONS

1. The departments and the section need to establish better lines of communication with the institute, the faculty and the university level. Admittedly, this is very much a question about an action from the higher levels, but will not happen if the need for this is not strongly pushed from “the floor”.
2. The departments and the section need to establish three to five-year visions with concrete goals. The panel sees the high relevance for this section of a unit for small animal imaging, a research PACS and professor chairs in radiochemistry, immuno- oncology, external radiotherapy, MR physics. The section should include these strategic goals in the plans and see if there are ways for their realisation.
3. The section should increase incentives for and find different ways to increase external grant funding on a national and international level.
4. The section needs to find structures and means to mentor and support younger scientists in their career development – whether they are recruited from outside or within.
5. The section needs to establish routines for periodic feedback and evaluation – in relation to the departments as well as to the institute. This process should include publication strategies.
6. For parts of this section advanced computational capacity is of key interest and the section should make sure that their interests are represented when the plans for such a facility is developed with Chalmers and others.
7. Statistical and bioinformatics support is of great need. Since this need is probably not optimally fulfilled by a distant helpdesk on the faculty level, joint funding of such resources should be discussed on the section level.

CLINICAL SCIENCES PANEL 4 – PAEDIATRICS; OBSTETRICS AND GYNAECOLOGY

782	Introductory Remarks
782	Section A – Background and Research Standing
782	A1. Background
783	A2. Research standing
784	Section B – Leadership
784	B1. Leadership
785	B2. Recruitment
785	B3. Career structure
786	B4. Funding
787	B5. Feedback and evaluation
787	Section C – Complete Academic Environment
787	C1. Collaboration
788	C2. Relevance and impact on society
788	C3. Research-teaching linkages
789	Section D – Academic Culture
789	D1. Academic culture
789	D2. Publication
790	D3. Facilities and research infrastructure
790	D4. Transverse perspectives
791	Section E – Support
791	E1. Internal research support
791	E2. Faculty and University-wide support
792	Section F – Other Matters
792	F1. RED10 evaluation
792	F2. Other matters
792	Concluding Recommendations

INTRODUCTORY REMARKS

The panel appreciated an ambitious interview programme prepared by the Department of Obstetrics and Gynaecology as well as the Department of Paediatrics. This allowed the panel to meet many different staff categories involved in research and teaching as well as the academic leaders, many of whom also hold significant clinical responsibility. This written report has been jointly prepared and approved by all panel four members.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Department organisation

The section is subdivided into three main departments/subdivisions: Paediatrics (chaired by Professor Jovanna Dahlgren, Obstetrics & Gynaecology (chaired by Professor Mats Brännström) and Information Centre for Rare Diseases (chaired by Lena Kolvik). The Head of Section, Jovanna Dahlgren is a member of the Board of the Institute of Clinical Sciences. The size of each subdivision varies between 10–25 employees, adding 50–60 more associated researchers and 40–50 external PhD students. There are informal boards for each subdivision, with monthly meetings during the autumn and spring semesters. At these meetings, subdivision-specific questions and strategies related to research and teaching are discussed. These subdivisions are part of, or the main host of, a number of centres/laboratories within Sahlgrenska Academy and Sahlgrenska University Hospital.

Recommendations and thoughts with respect to how the department is organised facilitating high-quality research

It was the panel's impression that the section, as well as the individual departments, needs to establish a clear research strategy. When doing this, it will be important to decide whether to establish a limited/finite focus as distinct from a diverse portfolio of projects. In part, this decision will have significant implications given finite funding resources.

The panel noted a potential burden of many levels of reporting which appears to compromise decision-making. To the extent this view is shared by the administration, we encourage revisiting the current organisational construct.

The panel was quite concerned that the protection of time for clinicians involved in PhD studies was inconsistent. We encountered examples where the clinical PhD student struggled to allocate the necessary time to meet the 50/50 requirement of expected research time during PhD studies.

The panel was impressed by the 50/50 ALF-awards supporting clinical PhD students and clinician post-PhDs with protected research time. This, importantly, underpins future strategies for the clinical research agenda within the departments/section.

The panel noted a high level of local foundation funding. Given the high quality of research in several areas, the panel was surprised not to find additional external/European/international competitive funding support.

The panel questions whether the section/departments have sufficient locally-based administrative support in the realm of research grant submissions. There is a university-wide Grants and Innovation Office. Does the section/department make adequate use of this resource?

The general impression was that there is not a consistent strategy for “succession planning”. The panel recommends that each discipline review its strategy for capacity building, identifying new talents, and securing the discipline’s academic future. Engagement with the university to enable international recruitment is recommended.

A2. Research standing

- *Research, research profiles, strategies and plans – are they relevant and convincing?*

The panel was impressed by the quality of the ob/gyn projects: uterine transplantation, perinatal brain injury, and preterm birth and genomics. Some of this work has been published in the highest impact journals, e.g. *NEJM*; *Lancet*; *Nature*; *Science*; *JAMA*; *PLoS Medicine*; *SciTransl Med*; along with publications in high-end specialty journals. In contrast, the panel viewed the paediatric research portfolio as less strong, where research is diverse and negatively influenced by heavy clinical workload. The panel understands that research planning will be a future focus within and across the two departments.

- *The quality of the department’s research from an international perspective within its field. Please elaborate on the standing of the department’s research. Is it clearly above average, average or below average?*

From an international perspective, the panel considers the research portfolio of the Department of Obstetrics and Gynaecology to be above average. The panel assesses the corresponding portfolio for the Department of Paediatrics as overall average, although heterogeneity between disciplines is reflected by the fact that some disciplines have been more productive and others less with regards to publications and grants.

- *The current aspirations for new research initiatives (major new projects etc—are they relevant and realistic?)*

The panel did not exhaust this element of departmental research efforts. However, the panel did note some new research initiatives. Examples include the uterine transplant model, exploiting bio-banked material, endometriosis, and outputs from the recently established Centre for Perinatal Medicine and Health.

- *The department’s aspirations and vision for the medium-term (5–10 years) future – are they relevant and convincing?*

Research planning strategy, capacity building, and succession all require a medium and long-term vision. The panel understood that the RED10 evaluation has not been utilised as a “living document”. Both department chairs expressed the view that they will welcome the RED19 report and make use of it as a “living document”.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- It was the panel’s sense that both the Department of Obstetrics and Gynaecology and the Department of Paediatrics are the beneficiaries of highly accomplished chairs. The panel acknowledges the focus on gender equality.

Weaknesses

- The panel did not identify any major weakness in the departmental leaderships. However, there are opportunities to enhance support for career development and research collaboration; Please see recommendations below. The absence of strategy for succession planning was noted by the panel.
- *Challenges for the leadership:*
 - The panel noted that the geographically separate sites negatively affect both departments and opportunities for collaboration and some staff expressed a feeling of isolation. Lack of animal facilities and other core facilities at the East campus has had an overall negative impact on research.
 - Both chairs need to identify their own departmental strengths and preferred future research direction. The strategy of both chairs to “let every flower bloom” may require additional elaboration.

Recommendations

- Establish a detailed recruitment strategy for senior academic appointments that is developed in collaboration with the University and Hospital (clinical)

leadership. Given the current age pyramid, this recommendation assumes special urgency.

- Continue to support junior researchers' leadership development by suggesting courses for development of leadership skills.
- Develop a mentorship programme.
- Establish a cross-departmental seminar/journal club programme with expectation of diverse attendance.
- Promote the number and diversity of competitive grant applications e.g. EU funding.
- Make optimal use of the resources offered by the university's Grants and Innovation Office.
- Develop a clear succession plan for each discipline.
- Ensure protected research time in the course of pursuing a PhD degree.
- Provide adequate administrative support to PhD students with respect to university regulatory processes related as to the attainment of a PhD degree.
- Implement a scheme for incentive and encouragement of young doctors and researchers to follow academically oriented career paths.
- Facilitate opportunities for international collaboration, especially for post-doctoral fellowships.

B1.2 Faculty/University level leadership

The panel did not interview representatives of the faculty/university leadership and assumes that other panels have this brief.

B2. Recruitment

Strengths

- The panel was pleased to meet with two early-career MD/PhDs who had received and benefitted from training abroad.

Weaknesses

- The panel identified opportunities to enhance support for career development and research collaboration, e.g. too few new recruitments from abroad and little interaction between preclinical and clinical departments for recruitment of those with an MD/PhD degree.

Recommendations

- The panel recommends the establishment of a detailed recruitment strategy for academic appointments at several levels, most particularly at the senior level. Given the current age pyramid, this recommendation assumes special urgency.

B3. Career structure

Strengths

- The panel understands that there is departmental support for a seminar programme which aims to support career development. The self-evaluation docu-

ment mentioned the first of such earlier this year. Gender diversity was evident and the panel noted support for nursing colleagues to pursue academic careers, notably PhD and onward academic career support. The panel recognized the success of both departments with ALF-resources, both for clinicians doing PhDs and clinicians post-PhD. The panel was impressed by the ALF-awards supporting clinical PhD students and post-PhD clinicians with protected research time (50/50).

Weaknesses

- The panel noted generally a modest level of interest in pursuing international exchange.
- Shortage of clinical staff to allow clinicians to pursue academic career.
- Clinical PhD students struggle to allocate necessary time to meet the 50/50 requirement of expected research time during PhD studies.
- The potential of the university-level Grants office is not fully appreciated.

Recommendations

- The panel identified an urgent need to discuss on section/departmental levels how to best support protected time for clinicians undertaking research.
- Emphasise a culture where international exchange opportunities are a positive career benefit.
- The panel supports the view of the department heads that recruitment opportunities from basic sciences should be promoted.

B4. Funding

Strengths

- Most disciplines seem to have sufficient research funds. However, the panel notes that this funding often originates from local/regional resources.

Weaknesses

- The panel agrees with the department heads that the research is too dependent on local sources and their support from competitive national/EU/international funding bodies should be enhanced. The current grant support within the section from the Swedish Research Council is limited to a total of four grants, and from the EU only one grant as a co-investigator.

Recommendations

- The panel recommends actions to promote an increase in number of competitive national/ EU/ international grant applications.
- Fully utilise the support from the university's Grants and Innovation Office.
- Consider a departmental/section-level funding strategy including internal review of applications to support the quality of grant submissions.

B5. Feedback and evaluation

Strengths

- Annual report of section research activities prepared jointly by departmental chairs.
- Internal review of manuscripts before submission.
- Researchers receive informal feedback within Sahlgrenska Academy during the annual performance dialogue.

Weaknesses

- Lack of annual formal feedback to researchers not employed within Sahlgrenska Academy.

Recommendations

- The panel supports the implementation of giving annual formal performance feedback to all individual researchers (clinical and non-clinical).

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The panel acknowledges that both departments have involvement with strategic networks at national and international levels. However, the panel does note that the national engagement outweighs the international. The panel was impressed to meet an early/mid-career scientist with a vision for global research.

Weaknesses

- The balance towards mostly national collaboration outweighs the international.

Recommendations

- The panel recommends seeking more opportunities for collaboration in the international arena.

C1.2 Collaboration with external stakeholders

Strengths

- The panel acknowledges that some researchers benefit from academic collaborations with industry, which result in significant publication output benefitting the patients.

Weaknesses

- The panel did not get a sense that collaboration with external stakeholders negatively impacted academic freedom.

Recommendations

- The panel recommends that the departmental/section leaders keep an eye on the level of industrial engagement and the propriety thereof.

C2. Relevance and impact on society

C2.1 Management and support

The panel did see its way of a constructive response to the above-mentioned subject.

C2.2 Research relevance and impact on society

The section/departments have good examples of research endeavours that have had/are having clinical impact. Several of them are identified in the self-evaluation document.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- The panel acknowledges that researchers and many postdocs and PhD students are involved in teaching. The panel was pleased to see the enthusiasm with which undergraduate teaching is supported.

Weaknesses

- Very limited number of master's student teaching and lack of online distance learning initiatives.

Recommendations

- Consider online learning activities if in line with the university educational strategy.

C3.2 Doctoral education

Strengths

- A high proportion of MDs are pursuing a PhD.

Weaknesses

- The level of relief from clinical duties and the securing of protected time for research. Some PhD students lack departmental administrative support for academic processes. Supervision is too insular for some PhD students.

Recommendations

- The panel agrees with the self-evaluation that promoting PhD seminar activities should be prioritised. Establish peer-support groups for doctoral students.

- Cross-discipline co-supervision of PhDs could be more evident/exploited.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The panel acknowledges no obvious gender issue at the junior and middle level. Indeed, good gender balance was evident throughout the visit, particularly at mid-career levels.

Weaknesses

- The panel was left with the impression of insularity, as reflected by limited international movements e.g. postdocs and sabbatical opportunities.

Recommendations

- Encourage opportunities for international exposure.

D2. Publication

D2.1 Publication strategy

Strengths

- The panel acknowledge that many researchers are publishing in high-impact general journals or in the highest impact journals in their speciality field.

Weaknesses

- The panel acknowledges that there is no written publication strategy.
- Some paediatric areas need to change publication strategies to a broader field, improving the impact factor and reaching a broader public.

Recommendations

- Consider appointing a publication committee at the departmental/section level to assist with internal peer-review prior to manuscript submission, aiming to maximise the quality of submissions.

D2.2 Analysis of bibliometric data

Strengths

- The panel acknowledges that both departments perform very well at the Institute of Clinical Sciences level.

Weaknesses

- The panel acknowledges the comments in the self-evaluation.

Recommendations

- The panel recommends that manuscript authors should always prioritise quality over quantity. This topic would be suitable for discussion within the research strategy at the departmental/ section level.

D3. Facilities and research infrastructure**Strengths**

- The panel acknowledges that the research is performed in near collaboration with the clinical setting.

Weaknesses

- Lack of experimental laboratory facilities, animal facility and other core facilities at the East campus.

Recommendations

- The panel encourages, whenever possible, close collaboration between clinical and basic scientists.

D4. Transverse perspectives**D4.1 Equal opportunities and gender equality****Strengths**

- The panel recognises the positive actions of both departments within this context.

Weaknesses

- No major weakness identified.

Recommendations

- The panel has no specific recommendations as the section is already engaging well on issues related to gender diversity.

D4.2 Internationalisation**Strengths**

- The panel acknowledges that a limited number of research groups have extensive international collaborations with productive output, e.g. publications in high-impact journals and EU/ international funding.

Weaknesses

- The panel recognises that many groups lack international engagement at different levels.

Recommendations

- The panel recommends a strategy to create incentives for increased internation-

al exchange. The panel endorses the recognition of this in the self-evaluation document and suggested strategies therein to increase internationalisation.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The panel found that both departments appear to be well funded and therefore may be in a favourable position to support and advance departmental research efforts.

Weaknesses

- The panel considers the position of the Section Head to be critical for the departments and therefore suggests that the authority of this position be strengthened.
- It is difficult for the Head of Department to implement succession. It is the view of the panel that the Section Head should be empowered to make such decisions in coordination with the Institute and Department Heads.
- The panel does not really understand the role of the Section in the university's organisational structure.
- The panel was left with the impression that administrative requirements applicable to PhD students could be amplified by improved communication, a dedicated website, and/or dedicated personnel at the departmental level.

Recommendations

- The panel suggests that the role of the Section be clarified, and that the role and its value be revisited. The panel further recommends that the position of the Section Head be further empowered such that the relevant responsibilities may be accomplished.

E2. Faculty and University-wide support

Strengths

- The panel acknowledges that the West campus is well equipped with cross-departmental experimental laboratory facilities and facility for animal use.

Weaknesses

- The panel acknowledges that the self-evaluation points out a lack of core facilities at the East campus, including an animal facility.
- The panel found mixed views regarding interactions and support by the university's Grants and Innovation Office.

Recommendations

- Ensure optimal engagement and interaction with the Grants and Innovation Office.

- To the extent feasible and/or desirable, consideration should be given to the possibility of creating appropriate experimental cross-departmental shared laboratory space and corresponding core facilities at the East campus including an appropriately-sized animal facility. The panel is cognisant of the costs involved and of the evolving trends as they apply to experimental animal use. Subject to these considerations, the institutional leadership would be well advised to review and decide on the resolution of this long-standing challenge. The enhanced resources on the East campus are viewed by the panel as a critical element in attracting promising future leading researchers.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

It was the sense of the panel that the recommendations of the RE10 evaluation proved informative at the overall institutional level but that implementation of these recommendations at the departmental level has been modest. For example, recommendation #1 of the RED10 evaluation called for national and international collaboration and recruitment outside Gothenburg. It was the sense of the panel that the aforementioned recommendation has been implemented in part at the level of the Department of Obstetrics and Gynaecology as well as the Department of Paediatrics. Similar observations apply to other recommendations of the RED10 evaluation.

F2. Other matters

It was the view of the panel that both departments are in need of university support with the management of “big data” and “bio-banking”. In this day and age, it would seem that aforementioned resources are best constructed and managed by the institution as a whole in collaboration with the clinical services, so as to ensure efficiency of cross-institutional state-of-the-art technology in line with the increasing view of easy data sharing and management.

The panel found evidence of interest for projects that have relevance in the international arena, particularly for lower- and middle-income countries. The panel wonders whether the institution has interest in seeding these activities.

CONCLUDING RECOMMENDATIONS

- *Succession planning and capacity building*: Establish a detailed recruitment strategy for senior academic appointments that is developed in collaboration with the University and Hospital (clinical) leadership. This may include consideration for strategies for external recruitment. Given the current age pyramid, this recommendation assumes special urgency.

- **Research strategy:** A clear research strategy needs to be developed at the departmental/section level.
- **Strengthen the East campus:** Address the lack of core facilities on the East campus.
- **International exchange and collaboration:** Exchange and collaboration should be promoted through strong international collaborative networks.
- **Clinical academic career track:** Establish clinical academic career track support including a mentorship programme at all levels.
- **External research funding:** Ensure an increase in peer-review grant funding from the EU and other international bodies.

INSTITUTE OF HEALTH AND CARE SCIENCES

796	Introductory Remarks
796	Section A – Background and Research Standing
796	A1. Background
796	A2. Research standing
798	Section B – Leadership
798	B1. Leadership
799	B2. Recruitment
800	B3. Career structure
801	B4. Funding
802	B5. Feedback and evaluation
802	Section C – Complete Academic Environment
802	C1. Collaboration
804	C2. Relevance and impact on society
805	C3. Research-teaching linkages
806	Section D – Academic Culture
806	D1. Academic culture
807	D2. Publication
808	D3. Facilities and research infrastructure
809	D4. Transverse perspectives
810	Section E – Support
810	E1. Internal research support
811	E2. Faculty and University-wide support
812	Section F – Other Matters
812	F1. RED10 evaluation
812	F2. Other matters
812	Concluding Recommendations

INTRODUCTORY REMARKS

Discussions over the telephone with panel members in early February.

Questions from panel members were ready in the beginning of March and sent to the department.

The site visit took place over the 1st–4th of April 2019. All panellists were introduced to the RED19 project on the first day. On the second and third day we visited the department (IHCS) to conduct the planned interviews with the Head of Department, representatives of the staff and PhD students. Each day we discussed different issues that arose and added these to our protocol. On Thursday and Friday, all panel chairs met the faculty and University Management.

During April we have discussed and worked on the final report.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The University of Gothenburg's (UGOT) faculty of health sciences, Sahlgrenska Academy, comprises six departments (institutes), including the Institute of Health and Care Sciences (IHCS).

While we initially found some aspects of the IHCS self-evaluation report to be difficult to follow, it became clear that this was primarily related to the ongoing and comprehensive process of change in leadership and organisation going on in parallel to the RED19 evaluation. Karin Ahlberg, the new Head of Department, has been in this position less than one year. We found the staff and students at IHCS to be very reflective, self-critical and open, and keen to engage with the evaluation process. We were shown an organisational chart, delineating the ongoing and planned changes, which were adequately motivated for us and in line with moving towards a more complete academic environment with better integration of research and education.

The tensions between radically increased demands on undergraduate education since RED10 and the desire at all levels of IHCS to produce high-quality research and develop an environment conducive for this was clear in all discussions.

The relationship between the successful research centre 'University of Gothenburg Centre for Person-Centred Care' (GPCC) and the department remains unclear, as GPCC seems to have both a financially unique position and a strong influence on the research profile of the department. Information about the infrastructure and sustainability of GPCC was not included in the self-evaluation report, although it seems important to the future of the department's research.

A2. Research standing

The research at IHCS covers the following research areas:

- Healthcare environment;
- Childbirth research;
- Healthcare transitions;
- Care pedagogics and leadership;
- Person-centred care in long-term conditions;
- Acute and critical care;
- Palliative care.

The GPCC research centre is also located in IHCS. This is the major research group in relation to funding in the department. Researchers can belong to more than one research milieu.

Comment on:

Research, research profiles, strategies and plans – are they relevant and convincing?

The quality of the department's research from an international perspective within its field. Please elaborate on the standing of the department's research. Is it clearly above average, or below average?

The current aspirations for new research initiatives (major new projects etc – are they relevant and realistic?) The department's aspirations and vision for the medium-term (5–10 years) future – are they relevant and convincing?

Comments

- Research profiles and plans are relevant and convincing. They address important societal and healthcare issues, and in interviews with IHCS leadership, some consideration was given to the implications of potential upcoming changes in prioritisation in the Swedish healthcare system for the department's future research strategies.
- Without having access to appropriate and representative samples of research outputs, it is difficult for us to make a clear judgement on the standard of existing research. The bibliometric data provided are, by their nature, poor indicators of relative research quality. Members of the evaluation group have looked at publication lists from the website which suggest significant numbers of peer-reviewed papers published in high-quality international journals, along with presentations at reputable international conferences.
- The aspirations of IHCS are both relevant and convincing, provided that it proves possible to address the conflicts between delivering quality education to large numbers of students and conducting quality research.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Karin Ahlberg had only been head of IHCS for nine months at the time of the interview. Our impression is that she has ambitious plans for considering how to best work strategically to further develop research and a complete academic environment at IHCS. It may be that no organisational plan for IHCS was included in our materials due to the ongoing reorganisation; however, better initial understanding of the organisational structures would have been helpful.

Strengths

- The Head of Department and the section managers are said to be responsible for supporting new researchers in finding potential scientific leaders.
- The department has actively nominated four researchers to the university-wide *research leader initiative* programme, a course for future scientific leaders.
- IHCS has an advisory committee for research.
- There is an expressed active interest in increasing interaction between IHCS and GPCC, to avoid an ‘us versus ‘them’ polarisation.

Weaknesses (potential and existing)

- There is a plan to further integrate research group leaders into everyday governance and decision-making to achieve a complete academic environment. One reflection is if, in a situation already marked by many forces described as detracting from research focus, this may also serve to further take time and effort from research.
- While not a weakness, one potential challenge is also the change in leadership of GPCC from 1 April 2019. It is important that GPCC continue to have stable financing from the university to allow the new leadership to become established, without jeopardising GPCC’s continued positive trajectory.

Recommendations

- Given the relatively recent shift in leadership at both IHCS and GPCC, and a focus on supporting junior staff, it may be important to develop support structures and mentorship for the departmental leadership.
- Many of the issues confronting them are not specific to IHCS, but seem to be shared by other, similar departments at large academic centres in Sweden and, to some extent, internationally.

B1.2 Faculty/University level leadership

Strengths

- There appears to be a good amount of interaction among different departments/institutes within Sahlgrenska Academy, which is described in positive terms.
- Even faculty-level contact persons, e.g. for doctoral studies, are spoken of positively.

- The senior faculty and IHCS leadership describe increased recognition of the importance of the contribution of nursing and healthcare science research in multidisciplinary collaboration, across departments, since RED10.

Weaknesses

- Funding structures and other means for prioritisation appear based on comparisons with other disciplines/departments in the faculty, which seriously disfavours IHCS.
- Another problem may be that university-level decision-makers assume that IHCS, as part of a strong research-based faculty with access to many resources, also has good access to these resources and receives adequate support from the faculty. This does not always appear to be the case.
- The support from both faculty- and university-level leadership is described as not particularly proactive, with little focus on strengthening healthcare science research on its own terms.

Recommendations

- Consider the extent to which the algorithms (e.g. ‘activity funding’, bibliometrics) used for financial rewards related to research performance are equitable across departments within Sahlgrenska Academy.
- Ensure that barriers to inter- and transdisciplinary collaboration across organisational units are minimised.
- Ensure that there are accessible systems and means for early access to the input needed to develop competitive grant applications. This should be seen as an investment rather than a cost.
- Systematic mentorship programmes across departments and faculties should be widely available at all levels.

B2. Recruitment

Strengths

- IHCS has invested in several strategic visiting professors, in addition to those collaborating with GPCC. This strategy also dramatically strengthens international collaboration, including a unique possibility for a double doctoral degree at both KU Leuven and UGOT for some doctoral students.
- A virtual meeting is planned for all guest and affiliated foreign senior faculty, aimed at maximising their active involvement in IHCS and supporting building a critical mass of competence.
- IHCS also recruits doctoral students, as well as junior and senior faculty, from a variety of disciplines, something which is not always the case in other comparable national and international departments. These seem to be constructive recruitment strategies.

Weaknesses

- Again, the tensions between research and undergraduate education seem to be of major importance to overcome, in order to recruit competent researchers.

There is, however, a limited pool of competent senior researchers who can be recruited within Sweden, which is also evidenced in the limited numbers of qualified applicants for vacant positions.

- The department's urgent need to recruit teaching faculty has succeeded in bringing a relatively large number of new staff without doctoral degrees to permanent positions at IHCS. While IHCS has been very successful compared to other Swedish departments with similar needs, this also risks obstructing the possibility to recruit talented researchers.

Recommendations

- It is important to find ways for promising staff, recruited predominately for education, to be able to shift into positions with increased research focus.
- Is it possible to consider collaboration with GPCC to establish joint research-teaching positions, allowing increased time and focus on research than is generally the case?

B3. Career structure

Strengths

- IHCS faculty and leadership show awareness of the need for more systematic work in this area, and plan to better support career development.
- The internationally-recruited senior researchers contribute new competencies and perspectives, which complement permanent faculty.
- IHCS has begun supporting junior faculty development by instituting associate lectureships (*bitr. lektorat*), i.e. positions with increased research focus for several years, in a tenure-track position.
- Some research groups appear to have more focus on career development than others, and GPCC representatives specifically mention support for younger researchers' grant applications.

Weaknesses

- At present, there seem to be few organised career development structures across research groups.
- Difficulty in finding applicants for faculty positions with research backgrounds.
- All researchers are required to take part in undergraduate education.
- IHCS needs to work on systematic career planning and research skills for junior staff.

Recommendations

- Structured, systematic and regularly occurring career planning and development is needed to build staff competency.
- An external mentorship programme for all staff, from doctoral students to senior faculty, might be supportive and help open horizons.
- Continue to invite visiting professors for high-quality research.

B4. Funding

Strengths

- IHCS researchers seem to have been successful in receiving grants from major national government funding agencies and from NGOs, although the extent to which this success is spread across groups and individuals is not clear.
- There is notable interest and engagement in research endeavours with other universities and departments in the faculty, e.g. via the new Centre for Perinatal Medicine and Health. This is also raised as one possibility for generating increased funding. Even joint academic/clinical positions are mentioned as a means of securing increased time for research, with the additional benefit of assuring relevance for healthcare.
- GPCC has had stable and significant funding in the period since RED10, which has been important for its success. This financial stability has also provided a base, meaning that additional research funding has been able to be successfully generated from a variety of sources, including EU.

Weaknesses

- As teaching demands are so high, there is a risk that faculty with research funding are unable to take the time to use it, as a minimum 30% teaching time is expected for all faculty. This is a concern, as it may inhibit meeting research obligations in a timely fashion, which may hinder individual research careers. There is also a risk that it is more difficult to obtain new funding if it is not possible to demonstrate adequate and timely outputs and quality use of acquired funding. This seems most crucial to address, as obtaining more research funding will not solve the tensions between undergraduate teaching demands and protected research time.
- There is a present lack of organisational support for grant applications beyond peer review and support in individual research groups; however, this is unfortunately common in many university settings in Sweden today, although it is positive that IHCS recognises the challenges this involves.
- There also seems to be a lack of clarity concerning the algorithms and mechanisms for internal faculty and university funding based on research outputs, as IHCS seems to be increasing and improving research outputs while funding is said to remain relatively consistent despite this.

Recommendations

- The algorithms (e.g. 'activity funding', bibliometrics) used for financial rewards related to research performance should be reviewed to assure that they are equitable across departments within Sahlgrenska Academy.
- It is crucial to ensure continued stable base funding for GPCC, as GPCC is a key to the future success of IHCS in recruiting and maintaining a sophisticated critical mass of researchers.

B5. Feedback and evaluation

Strengths

- Several research groups seem to apply a variety of approaches for research follow-up, although they appear relatively irregular and not entirely systematic. This is one of the points IHCS intends to address through its comprehensive reorganisation, although specific plans are not yet clear.
- GPCC has frequent, systematic evaluations of projects they finance, based on feedback from researchers.
- GPCC has undergone a recent external evaluation (report dated March 2019), which confirmed its internal SWOT analysis.

Weaknesses

- Feedback and evaluation about research achievements seem to be relatively ad hoc, on research group and project level. It is not clear the extent to which individual researchers receive support, feedback or are evaluated.
- As IHCS is presently undergoing reorganisation and a concerted development effort, we did not receive specifically formulated goals or criteria for evaluation.
- GPCC representatives express a need for improved outcome measures for research and are self-critical to the limited patient/public involvement in the determination of outcome measures.

Recommendations

- Increased clarity and clearly-formulated criteria for evaluation as well as goals could facilitate the development of systematic feedback processes.
- IHCS would benefit from more collaboration with GPCC in all research areas.
- Follow the recommendations for GPCC, to conduct more research on person-centred care, especially in primary care, larger randomised controlled studies, and using outcome measures that facilitate comparison with other research.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Staff describe strong linkages with other groups within the university, particularly but not exclusively, within Medicine. It appears that these links are stronger for some research groups, including those with a strong clinical focus, than for others. The GPCC has particularly strong links across multiple disciplines.
- The “VIS collaboration” with six regional universities working in healthcare research sounds promising, with staff talking about joint workshops and joint research. It wasn’t clear the extent to which this collaboration had moved from aspiration to impact.

- The visiting professor programme is clearly beneficial, having attracted some highly-regarded academics who demonstrate considerable commitment to the host department. This has clear benefits for research quality and the research environment.

Weaknesses

- It was not clear the extent to which all members of staff were benefiting from these collaborations, with some of the junior staff having little awareness of these opportunities. There is a scepticism towards patient-related outcome data as a base for scientific evidence in relation to experimental and pure medical research.
- IHCS leaders note that some groups (e.g. diagnostic radiology nursing) lack clear links with relevant disciplines (e.g. radiology and medical physics) and say that they are working to build such links.

Recommendations

- An emphasis on the further development of existing and potential links with other departments within UGOT would help to ensure that research is not conducted within disciplinary silos, bringing benefit to other faculties as well as GPCC.
- The focus on person-centred care is of particularly high standard and highly relevant across the practice of healthcare. We note the existence of a course in person-centredness open to participation across faculties. Promoting access to this perspective across Sahlgrenska Academy would offer benefits to research and teaching across departments.

C1.2 Collaboration with external stakeholders

Strengths

- The extensive provision of shared clinical / academic positions offers the potential to ensure that research is well rooted in clinical needs and to increase the impact of research on practice. The accounts of this given during interviews were uniformly positive.
- Public involvement is strong in some groups (especially GPCC) but less clear in others. The involvement of members of the public (including representatives of patient interest organisations) in governance is strong in some areas. We were impressed by the enthusiasm and commitment of the PPI representative we interviewed.

Weaknesses

- The extensive clinical collaborations are heavily weighted towards hospital care, although connections with community-based services are now being discussed.
- IHCS note in their background material that there is a relative lack of managerial-level joint clinical/academic positions within Sahlgrenska University

Hospital. This is potentially problematic as research in health and care sciences may fall behind, and could be at risk of marginalisation.

Recommendations

- Continue to develop contacts with community-based service organisations to seek joint positions similar to those currently placed with hospital services.
- In order to develop more managerial joint clinical/academic positions, consider whether exploring alternative funding models for joint clinical/academic posts might offer similar benefits for research and teaching while preserving departmental funding.
- Build on the enthusiastic support offered by current PPI members to spread the approach across all research areas and seek PPI involvement through all stages of the research process from selection and design of projects to conducting and spreading them.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- There is an awareness of the potential, and some existing examples (such as in the field of patient safety) of using researcher/research expertise within clinical environments to improve care. This is supported by the joint clinical/academic positions.
- The department demonstrates clear awareness of a need to further develop collaboration with care settings apart from acute care hospitals and are in the process of building such links.

Weaknesses

- Despite a clear commitment to achieving impact, there is a lack of a strategic plan to facilitate this. In particular, it was expressed that there was little incentive for researchers to devote substantial effort to achieving service improvement based on research.

Recommendations

- It is important for IHCS to assist stakeholders with research results when the physical healthcare environment is being planned with the aim of high quality.
- More effort is needed to develop a strategic plan for service improvement based on research.

C2.2 Research relevance and impact on society

Strengths

- There is a clear recognition amongst staff and management of the potential role of research in driving improvement in health and in services.
- The GPCC programme for research on implementation of PCC, and the national “VIPER” network they have developed for implementation, has led to an

- impressive programme of strategically developed knowledge and dissemination.
- The development of “GPCC Implement AB” was extremely innovative and should be recognised. It is unfortunate that this activity has proven difficult to support in the long term.

Weaknesses

- There is a relative lack of expertise in implementation science in IHCC. In particular, there is a need to move beyond a “dissemination” focus to wider approaches to changing practice. It was unclear the extent to which this expertise is available in the wider university and whether such expertise could be made available with IHCS.
- Failure to attract researchers to participate in and develop a sustainable financial model for GPCC Implement AB, which has not been active since July 2018.
- Some professions (such as medical students and doctors) and agencies (dental care, primary care, private actors) have shown less interest in PCC research.

Recommendations

- If the university is committed to increasing research impact on society, there is a need to ensure the availability of skills in implementation science.
- Researchers may consider whether more extensive involvement of the public in research may help to drive the impact of results.

C3. Research-teaching linkages

C3.1 Undergraduate and master’s education

Strengths

- Undergraduate students are writing theses based on clinical research and quality improvement projects.
- Master’s students are invited to participate in research projects, with theses in the form of a scientific article.
- Research amanuensis positions have been developed, which raise interest in research at early stages.
- Elective undergraduate course for research practicum are very innovative.
- PhD students are involved in relevant undergraduate and master’s level education.

Weaknesses

- The extensive involvement of academics (and PhD students) in teaching may reduce their ability to focus on high-quality research.
- Only few positions for research amanuensis. Small number of students choose the research practicum. Can undergraduates be more stimulated to participate in these options?
- Diagnostic radiology nursing is the least-developed research area, related to a limited critical mass of academic teachers/researchers.

Recommendations

- Ensure that excellence in teaching is highly valued and recognised by the institution.
- Investigate other funding/organisational models to ensure that academics have sufficient protected research time.
- Seek to employ researchers with competence in diagnostic radiology nursing. Or make efforts to develop research competency among existing faculty.

C3.2 Doctoral education

Strengths

- The joint doctoral programme with the University of Leuven is unique.
- The opportunity to conduct projects developed by senior researchers offers the chance for students to work on high-quality studies.
- The developing system to locate all PhD students clearly within research groups run by active researchers.
- The impressive programme of seminars by PhD students.
- A network amongst PhD students that includes more advanced PhD students unofficially mentoring newer students.

Weaknesses

- Some students suggested that, although the situation has improved over time, not all students feel adequately supervised.
- Not all PhD students are affiliated with a research group, and some students feel relatively unconnected with their research groups and have limited interaction with the programme within other research groups.
- Some students were unsure of where and how to get access to wider methodological expertise.

Recommendations

- All PhD students should be affiliated with a research group. Further encouragement of all students to become more closely connected to their own research groups and more aware of the opportunities to learn from other research groups and visiting professors is needed.
- Ensure the availability of a full range of methodological support to students.
- A network amongst PhD students is needed, including more advanced PhD students unofficially mentoring newer students.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There was a general description of traditional academic activities for a university department.

- Research seminars are held for reviewing manuscripts and proposals as well as discussing research publications in progress.
- The transition research group appears to have strong collaborations, including PhD education with KU Leuven.

Weaknesses

- Not all PhD students belong to a research group, and some rely only on their supervisors.
- Tensions between education and research need to be dealt with to develop a more academic culture.
- Creative processes are dominating according to the self-evaluation; this needs to be explained further. There seems to be a perceived lack of “seminar culture” within the department.

Recommendations

- All PhD students should belong to a research group.
- Balance and integration of research and education should be discussed and organised on all levels of leadership.
- Continue developing creative processes.
- Organise planned seminars at the department and in each research group.

D2. Publication

D2.1 Publication strategy

Strengths

- Mention of authorship in relation to importance. Within IHCS, the strategy is to have predefined written author agreement.
- Co-author publications are encouraged and discussed in relation to researchers’ career plans.

Weaknesses

- The criteria used for co-authorship at IHCS are unclear.
- Even if open access is the gold standard, according to the self-evaluation there is a minority of publications with open access. This is also costly—no mention of how this is financed.

Recommendations

- Authorship should be carefully discussed, as it is of importance for researchers’ career plans and as a model for the future for junior staff and PhD students.
- There needs to be more clarity about which open access journals are reputable and which are predatory. It is also important to find out who and how this is going to be financed.

D2.2 Analysis of bibliometric data

Strengths

- During 2013–2016 there was an increase in publication rates according to the bibliometric analysis for RED19.
- Cooperation with other departments in the faculty has developed, both in education and in research, as the number of PhD students has grown. This cooperation has been beneficial for the department and for GPCC.
- Cross-departmental cooperation was discussed as beneficial for healthcare science when applying for funding.
- Four members from IHCS have joined the Centre for Perinatal Medicine and Health, established in June 2018.

Weaknesses

- There was a decline in publication rates in 2017; this was explained as being due to increased teaching assignments for all staff.
- Lecturing and supervising students is taking time from research and thereby leading to fewer publications.
- GPCC is a centre for the whole university, therefore some information about publications has been from researchers belonging to other departments.

Recommendations

- More faculty-level support is needed to enable teachers/researchers to apply for research funding and to have more time for research and publication.
- Improve documentation of publications including the department from which they derive, both at the department and at GPCC.

D3. Facilities and research infrastructure

Strengths

- There is good awareness of the importance of building up stronger research environments.
- ‘Complete academic environment’ seems to be an important strategy for the future and plans for how education and research allocations can be distributed. A review and reorganisation of the department is ongoing.
- IHCS is aiming at high-quality research in larger quantity and promoting research activity. National and international collaboration is one of many ways to achieve this and the department seems to be aware of the fact that the infrastructure needs to be well organised.
- The department is planning to centralise some basic costs and allocate financing for different research activities.

Weaknesses

- Unclear how financing will be reallocated to allow for the research infrastructure.
- CAE seems to be an important strategy for the future, however what it means

- and what it specifically involves, or what the principles are, remains unclear.
- Skilled administrative staff for research is needed.
 - There is limited access to necessary statistical support.
 - Researchers have difficulty freeing time to fully use their external funding.
 - There is no follow-up of the output of the 10% time for research which lecturers have.
 - University- and department-level administrative resources for research support seem to be underused.

Recommendations

- There should be ready access to necessary statistical support at IHCS.
- Efforts should be made to make better use of available faculty and university resources in the future.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- Plans for both gender equality and equity do exist, but this is in accordance with Swedish law.
- The plan of action focuses on students and of all categories of staff.

Weaknesses

- When looking at the staff data, it becomes clear that the vast majority of individuals in the department are women, however there is an equal ratio of women:men professors that is not in line with the gender distribution on any other levels. This is not commented anywhere, nor is the interaction between discipline and gender, which often influences university-level decision-making as well.
- According to the staff data, men are highly prioritised for research funding. The reasons for this – or even the fact that this is the case – have not been mentioned.

Recommendations

- Develop educational examples and discuss and comment on the interaction between discipline and gender.
- It is recommended that IHCS leadership further analyse and develop an action plan to address possible gender and other inequalities at the department.

D4.2 Internationalisation

Strengths

- Very positive recruitment of international professors to strengthen the department.
- Very positive double PhDs in the health transition group in collaboration with KU Leuven.

- International exchange and participation on doctoral level, both to and from Sweden.
- International summer schools for PhD students.

Weaknesses

- An important point is the self-reflection during the interview (which should be credited) that much internationalisation seems to occur despite the lack of a clear plan and framework across the department, suggesting that this is related to individual researchers' initiatives. This may jeopardise sustainability.
- There was also self-reflection during the interviews about a lack of follow-up of internationalisation, although documentation of publications and research funding is carried out. It remains unclear what type of follow-up is suggested.
- Postdoc positions abroad are few.

Recommendations

- IHCS leadership reflects that more and stronger international collaborations are needed to build up the academic quality of the department; we support this strategy.
- The department should continue investigating what other strategic partnerships could be developed.
- Encourage and support young researchers to apply for international postdoc positions

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The head of the administrative division at the department has a continuous dialogue with the scientific leaders as well as the research administrators to maintain and develop internal administrative research support, which is an important part of the core infrastructure of research.

Weaknesses

- Solely focusing on PhD students might hinder newly-graduated PhDs and junior researchers in their career development.
- There is room for improvement regarding administration as the research administrators also have other types of administrative work.
- When writing grant applications, researchers need infrastructure support regarding writing, finances and copy-editing. Such infrastructure is presently not available for all researchers.
- The scientific leaders raised concern about the lack of a budget for each research group to facilitate their work considerably regarding activities and planning.

Recommendations

- Extending the number of postdoc positions financed by the department should be taken into consideration, as it is of utmost importance to secure qualified and competitive researchers in the future. The possibility to apply for PhD positions financed by the department and determined through an external review process, is very important.
- Researchers need support regarding writing grant applications, finances and copy-editing.

E2. Faculty and University-wide support

Strengths

- The university's Grants and Innovation Office (FIK) staff express a willingness to extend the assistance they offer in preparing applications for external grant support to IHCS researchers.
- A meeting is planned for FIK and IHCS leadership to investigate ways to improve support.

Weaknesses

- Although IHCS has some internal support to offer, this is limited and does not match the range of methodological support needed for high-quality research studies. University-wide support (for instance for statistics and health economics) also appears relatively limited, especially at the stage of grant development before funding is available and appears to be more commonly in the form of consultancy rather than research partnership.
- Junior staff appear unsure about the extent to which support from the research office and wider methodological expertise is available to them.
- It is unclear whether the model used at a university level to provide central support for research endeavours appropriately reflects and matches the level and type of activity within IHCS.

Recommendations

- Ensure the availability of a broad range of high-level methodological support, which is needed to develop and deliver research grants and programmes to researchers at all levels.
- Ensure that researchers at all levels have access to, and know how to access, support from the SA and UGOT levels, e.g. from FIK and methodological experts.
- Ensure that researchers are encouraged to work across disciplines and faculties in the preparation and delivery of research and that internal economic and "credit" models do not act as barriers to "team science".

SECTION F – OTHER MATTERS

F1. RED10 evaluation

- IHCS has worked systematically, and for the most part, very successfully in line with the recommendations from RED10. Still a little more to do.
- IHCS has developed national and international collaboration. Five international guest professors have been invited to work for five years at the department. This is experienced as very positive among staff and PhD students. International researchers are affiliated. GPCC has recruited researchers both nationally and internationally.
- The research groups have been rearranged to some extent, and some have new scientific leaders. However, reorganisation is still ongoing.
- At IHCS there is ongoing work to increase the number of senior lecturers/professors with shared clinical placements, which is of importance for the interaction with society and for research.
- Visiting professors and double degree PhDs are strengthening the department's own funding capabilities and success in obtaining funding.

Weaknesses

- Even if the department's action plan, business plan and strategy for the research groups have focused on external funding, research funding still needs to be increased.
- Research time is sometimes consumed by undergraduate teaching.
- Existing central support for grant applications seems to be underused.

F2. Other matters

- Report readiness for the VULF agreement.
- Systematic and national discrimination in relation to the focus of IHCS's research is noted here

CONCLUDING RECOMMENDATIONS

Positive Features

IHCS has a number of notably positive features:

- There are a significant number of strong research outputs in the forms of peer-reviewed, international publications and externally-financed, highly competitive grants from EU and national funding agencies.
- The GPCC is a highly competitive nationally- and internationally-recognised centre for the advancement of research and knowledge on person-centred care.
- IHCS has worked systematically, and for the most part, very successfully in line with the recommendations from RED10.

- The visiting professor programme has attracted a number of internationally-recognised researchers who have strengthened the department in a variety of manners, including the internationalisation of doctoral studies with a unique possibility to receive a double doctoral degree from UGOT and KU Leuven.
- Both IHCS and GPCC are developing programmes for public and patient involvement. The development of a new vice-dept head position about two years ago is an important platform for legitimising and further advancing this.
- There is also a systematic and concerted effort to increase interaction between clinical practice and care needs and research and education, as evidenced by the approximately 30% of faculty with joint hospital/IHCS positions.
- Some research groups have strong links with researchers from other disciplines or groups; this should continue to be encouraged.
- There is impressive drive by PhD students to organise themselves and further develop systematic educational possibilities.
- Given the recent change in leadership and an ongoing reorganisation process, the evaluators were impressed by the constructive, enthusiastic and reflective attitude of nearly all those interviewed towards criticism and future possibilities.

Challenges for the Future

- The single most important challenge for continued quality and quantity of research conducted is the tension between the heavy demands of undergraduate education – necessary for the nursing workforce of the future – and the ability of staff to deliver on the research agenda. This tension permeated most discussions, and is to a large extent beyond the direct control of the IHCS, but also relates to decisions made on faculty and university levels.
- There is a relative lack of research infrastructure specifically tailored to meet the particular needs of IHCS. This includes the wide variety of methodological expertise needed, as well as relevant, accessible and specific support from existing university-wide offices.
- The increased teaching burden since RED10 has meant that even when external research funding is successfully procured, it is difficult to free protected time to deliver the research.
- There is a lack of systematic career development found at all levels.
- Limitations on protected research time for postdocs, lecturers, and senior lecturers makes it difficult to have the time needed to prepare large-scale competitive grant applications.

- There is a need to ensure that faculty-and university indicators for research quality are relevant for the research conducted at IHCS.
- There is also a need to ensure that collaboration and interaction between IHCS and GPCC continues to develop on all levels – from doctoral students to senior faculty.

Recommendations for the Department

- There is a need to provide more comprehensive and systematic career development from the doctoral level to the senior research level, including leadership development. It is important to ensure that line management and career development are separated, and that there is input from beyond the individual's own research group.
- Develop systems to ensure early access to methodological input needed for the development of high-quality research.
- Develop systems for quality feedback during the process of developing, conducting and delivering research.
- Ensure that the necessary and comprehensive organisational changes already under development are inclusive processes, which can lead to continuing future development. This should include ensuring that all researchers have a clear home, and that when formulated as research groups, they are viable with a critical mass.

Recommendations for the Faculty and University

- Given the excellent national and international scientific reputation of GPCC, as well as its function as a driver for research at IHCS, it is crucial that its funding be stable in the future, rather than diverted to other activities.
- Consider the extent to which the algorithms (e.g. 'activity funding', bibliometrics) used for financial rewards related to research performance are equitable across departments within Sahlgrenska Academy.
- Ensure that barriers to inter-and transdisciplinary collaboration across organisational units are minimised.
- Ensure that there are accessible systems and means for early access to input needed to develop competitive grant applications. This should be seen as an investment rather than cost.
- Systematic mentorship programmes across departments and faculties should be widely available at all levels.

INSTITUTE OF MEDICINE

816	Introductory Remarks
818	Section A – Background and Research Standing
818	A1. Background
820	A2. Research standing
821	Section B – Leadership
821	B1. Leadership
821	B2. Recruitment
822	B3. Career structure
824	B4. Funding
825	B5. Feedback and evaluation
827	Section C – Complete Academic Environment
827	C1. Collaboration
831	C2. Relevance and impact on society
835	C3. Research-teaching linkages
837	Section D – Academic Culture
837	D1. Academic culture
839	D2. Publication
841	D3. Facilities and research infrastructure
842	D4. Transverse perspectives
843	Section E – Support
843	E1. Internal research support
844	E2. Faculty and University-wide support
845	Section F – Other Matters
845	F1. RED10 evaluation
846	F2. Other matters
846	Concluding Recommendations

INTRODUCTORY REMARKS

This evaluation of the Institute of Medicine (IoM) is based on the self-evaluation and other background material provided to the panel. It is also based on the site visit at the institute on the 2nd and 3rd of April 2019. The quality of the provided material and the organisation of the site visit were excellent and the panel feels that we have been provided with all information and feedback needed to perform the evaluation. However, we recognise that there still are many things of which we do not have the complete picture and some of our conclusions and recommendations may therefore not be justified. The panel is grateful for the opportunity to review the Institute of Medicine. We hope that our recommendations will be helpful in the future development of the institute and we would like to acknowledge that the work has been a valuable learning experience also for the panel members.

Summary

The review panel was impressed by the high scientific quality of the research carried out at the Institute of Medicine. Much of the work is at the absolute international frontline and is not only published in high-ranking journals, but is also already being translated to clinical practice. The panel was very impressed by the quality and visions of the leadership of the institute. We were also impressed by the reforms made to improve the academic environment of the institute and to provide a better support to staff and PhD students in the short time that the institute has existed. We were happy to see that the institute realises that this development has only started and that there still are many challenges to address. We have identified a number of areas to which we suggest the institute should give special attention.

1. *Institute of Medicine and its academic environment* – the institute should continue to strengthen the efforts to develop thematic programmes across the different departments of the institute and to encourage the engagement of departments outside the institute in these programmes. This will increase the societal impact of the research and also increase possibilities for funding for example from the European Union. Special emphasis should be put on a better integration of the future School of Public Health in the scientific programmes of the institute. There is an imbalance in external funding between the departments that may have a negative impact on the academic environment. The institute also needs to further develop its engagement in the PhD programme to ensure that all PhD students at the institute receive the same level of high-quality training and are able to establish networks with other master's and PhD students as well as junior researchers. PhD students should be encouraged to develop international contacts and have an opportunity to do part of their work abroad. The institute should ensure that the teaching opportunities and duties are shared equally and fairly. There is also a need for further development of grant support particularly for grants at the EU level.

2. *Research facilities* – The fragmented and limited availability of research facilities represents a major threat to the future of the institute. It restricts collaboration, decreases the possibilities for successful external recruitments and represents a risk that groups with increasing funding and expanding activity will accept offers to leave for other universities. The faculty and university leaderships must take an active part in resolving this problem. The new “*Sahlgrenska Life*” building is one attractive solution to this problem. However, this project will not be ready in the near future and funding for its completion remains to be secured. The problem is acute and short-term solutions need to be established.

3. *Academic research within the health care* – The challenges of performing academic research within a clinical environment are well known. It is the impression of the review panel that the collaboration between Sahlgrenska Academy, the Sahlgrenska Hospital and other healthcare providers within the Västra Götaland region is well established and characterised by mutual trust and understanding of the needs of the respective parties. In spite of this, it is clear that the needs of the daily healthcare service often take priority over research. As one clinical faculty stated “problems in healthcare become problems of the university”. This can only be changed by establishing a more academic culture within the entire university healthcare system and by engaging healthcare staff in research aimed at promoting the quality of care provided by their own clinical departments. This will require significant changes in healthcare management beyond the responsibilities of the university. However, we recommend the faculty to engage in discussions with the Västra Götaland region on how this can be achieved. Ideas of how this can be implemented can be found in “Kunskapslösningen” that have been put forward by the Swedish Academy of Science of the Swedish Society of Physicians and that can be downloaded at <https://www.sls.se/globalassets/sls/dokument/kunskapslosningen-2018.pdf>.

4. *Recruitments and career development* – the institute should put more emphasis on international recruitments at all academic levels. For professorships, active recruitment using search committees and help from international scientific advisory boards is encouraged. The institute should also take more responsibility for ensuring the quality of the PhD programme, with a particular focus on the situation of clinical PhDs. The institute should also assist in establishing networks and joint activities for PhD and postdocs. More developed and individualised career development programmes should be established for junior staff. The availability of the university and Västra Götaland region core facilities provide excellent opportunities for young investigators to develop scientific independence and renew the research environment at the institute. The institute should ensure that young scientists are well informed about these facilities and assist in making them available for young scientists with more restricted

budgets. The institute should also stimulate the mobility of young scientists, for example by helping them to find postdoctoral positions in high-quality research groups outside Sweden. However, we recognise that changes in society and lifestyle have made mobility in its traditional sense more difficult and we encourage the institute, as well as the university, to find novel ways of mobility that vitalise science, for example via a postdoctoral fellowship in a different faculty or a different research field.

5. *Collaboration and impact on society* – enhancement of implementation research as a way to get research into practice will be of great value for the faculty. There is likely to be an increasing demand for research on implementation in the years to come and this will most likely also lead to new funding possibilities. It is also an excellent area for collaboration with healthcare and more widely with society at large. As part of this work, it will also be important to increase the involvement of outside stakeholders, such as patients and their relatives plus civil society in general. The support structure for innovation and technology transfer at the university level is fragmented and should be reorganised into a more user-friendly “one door” approach. The institute and faculty should work to influence the university management in this direction.
6. *Open science* – based on an EU directive the Swedish government has decided that open science should be implemented in Sweden by 2025. Open science includes a number of different but overlapping areas such as open access to scientific information, which includes both publications and research data; open educational resources; open source code; alternative ways to measure scientific influence; open peer review; and citizen science. The institute and the faculty need to start working on a strategy for this transition.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Institute of Medicine is the largest department at the University of Gothenburg (UGOT) with a faculty size of 142. The activity of the institute is closely related to the Sahlgrenska University Hospital as well as the Västra Götaland region. The institute includes four departments: Molecular and Clinical Medicine, Internal Medicine and Clinical Nutrition, Rheumatology and Inflammation Research, Public Health and Community Medicine. Three out of the four departments include groups that perform research in closely related topics. The Department of Internal Medicine and Clinical Nutrition includes a number of research groups representing a wide variety of disciplines, including translational osteoporosis research, clinical endocrinology, allergy, irritable bowel syndrome. This structure

did not evolve organically and thus may provide a challenge to establish close collaboration and interaction especially when they are located at separate sites (please see below).

The panel has observed that the Department of Molecular and Clinical Medicine, Department of Inflammation and Rheumatology as well as the Department of Public Health and Community do have a united physical space and this allows synergy among the groups, interaction between PhD students and postdoctoral scientists, as well as the ability to create an academic environment. However, this is not the case for the Department of Internal Medicine and Clinical Nutrition, which suffers from the physical fragmentation of its groups. Also, the panel observed that several groups are not able to expand and recruit additional PIs due to space limitation and in spite of their success in attracting funding for expansion. The panel thinks that there is a need for providing a physical platform that would allow more interaction between the groups and that would also allow successful groups to expand. For the Department of Internal Medicine and Nutrition, there is an acute need to establish a translational research laboratory/unit/centre along the line of the Wallenberg laboratory which has been an extremely successful platform to enhance metabolic research. The panel thinks that improvement in the physical space is very much needed to secure the future success of the institute. The plans to establish the new physical infrastructure: *Sahlgrenska Life*, are very impressive and will provide an excellent translational research environment. However, the expected date for establishing this physical infrastructure is around 2027 which means that a temporary solution to the “physical” limitation is needed.

The panel also thinks that the process started by the Institute of Medicine to establish new thematic research clusters is highly relevant and will enhance interaction between groups and may provide a temporary solution for the physical fragmentations of the departments. Among the attractive research themes is the initiative led by the Department of Rheumatology and Inflammation to establish a “Centre for Multi-Disciplinary Translational Research on Inflammatory Disease” that can bring several groups together e.g. allergy/asthma/exosomes, chronic obstructive pulmonary disorder, sleep disorder. The panel thinks that such a constellation will allow more efficient use of resources and provide a platform for interaction. The panel also suggests the use of other incentive instruments to enhance collaboration within the institute e.g. establishing a joint PhD student programme, joint postdoctoral scientist or junior faculty positions to be shared between the groups. Such initiatives can be initiated at the levels of institute leadership.

The new leadership of the Institute of Medicine has started up a process of integrating the four departments. A common administration has been established. At the level of the Department for Community Medicine and Public Health (DCPH), a plan for a School of Public Health has been launched, but not finally decided. Furthermore, the Unit of Innovation and Implementation has been merged into the DCPH.

A2. Research standing

The Institute of Medicine includes a number of research groups that produce outstanding science and several of the groups are very well known for their excellent science, both at national and international levels. Specifically, the research groups have excellent publication performance, they are able to attract external funding, are very well represented in national and international research and clinical bodies, and are able to attract excellent students nationally and internationally. However, the panel has also observed differences in impact and success among the groups, which may be related to a variation in teaching burden and the absence of protected time for research for some of the groups. Also, clinicians with joint appointments at the hospital are under pressure to be loyal to their clinical departments and thus their research time is used in clinical practice.

The vision for the future is realistic and sustainable. The institute leadership has a clear idea of how to materialise this vision. However, there are critical challenges in relation to the limitation of the space need for expansion and recruitment. The panel experienced that the groups are highly variable in their ability to have a shared vision with the clinical departments and the hospital research strategy. The Department of Inflammation and Rheumatology Research is an excellent example of integration between clinical practice and research, and the panel thinks that experiences from this department can serve as a model for other groups to be inspired by. The panel thinks that a common vision between group leaders, the leaders of clinical departments, and the head of research at the hospital is of vital importance. The panel thinks that there is huge and sometimes not very well utilised potential for attracting clinicians with combined positions (clinic/research), creating tenure-track positions for non-MD scientists, and utilising core-facilities at the hospital and Sahlgrenska Academy.

The Department for Community Medicine and Public Health (DCPH) has strong research groups and a long-standing record in Occupational and Environmental Health and Life Course epidemiological studies. DCPH research is clearly above average. The department is currently putting up a more comprehensive programme in Global Health and wants to integrate general public health issues with basic clinical science. The department has recruited two new professors for Global Health. It seems as if the department would benefit from including behavioural science, such as Occupational Psychology, more in their curriculum. This would seem important for studying implantation and utilisation of research from the department's different themes.

The research strategy is based on developing high-quality epidemiological and clinical research with a national and international impact, and they have an overall aim to be one of the top 10 European departments in Community Medicine and Public Health in 10 years. This fits well with the aforementioned plan for a School of Public Health and the ambition seems congruent. In addition, the emphasis on Global Health is highly relevant in the strategy and can probably be fulfilled.

In general, the panel thinks that the strategies and plans of the whole institute and its different departments are convincing and achievable.

SECTION B – LEADERSHIP

B1. Leadership

B1.2 Faculty/University level leadership

Strengths

- The university is well organised at several levels of leadership.
- A Research Board has been established to provide information to University Management and to strengthen strategic discussion around research issues.
- University and faculty leadership have adopted many procedures supporting research and teaching at the lower organisational levels, e.g. the faculty co-finances strategic activities and positions.

Weaknesses

- The university organisation, including the Institute of Medicine and Sahlgrenska Academy, is complex and hierarchical, with several organisational and decision-making levels. In a large university, this is a challenge for leadership.
- The new Research Board for strategic discussions is somewhat bureaucratic.
- The hierarchy and distance between the organisational levels and academic positions may cause difficulties in information flow and contacts, and these may equally affect the integration and motivation of the faculty and staff.

Recommendations

- The faculty, as well as university leadership, should actively take part in finding solutions to fragmented and limited availability of research facilities.
- The university is an expert organisation based on knowledge resulting from scientific research. This should be considered in leadership and organisation. Even in a large university, the organisation should be as simple and flat as possible.
- The hierarchy, and thus unnecessary bureaucracy, should be reduced where possible.
- The Research Board might have more general tasks in the university community. The strategic discussions and debates could be as open as possible and include the whole university and its faculty and staff.

B2. Recruitment

Strengths

- Overall, recruitment is given a strong emphasis. That is important, as recruitment is a basis for successful research and teaching.
- It is further recognised that recruitment is both multidisciplinary and multinational. International recruitment is encouraged and all faculty positions are announced internationally.

- Tailor-made positions are not used and candidates from within the department and units are not favoured against newcomers.
- Younger talented and promising scholars are sought among scholars who have received funding for their work.

Weaknesses

- At the institutional level, structured and strategic recruitment plans are missing.
- A fair coverage of recruitments to all established departmental research areas, as well as areas that are novel or more marginal, is challenging in a multidisciplinary environment.
- As recruitment is very critical for departments, units, centres and teams, even more emphasis can be given to it. Single recruitments following the department guidelines may be successful but a broader perspective to recruitment and recruitment policies should be in place.
- The lack of space is raised as a major hindrance for development. Insufficient space and fragmented locations restrict collaboration, integration and synergy, decrease the possibilities for successful external recruitments, and represent a risk that groups with increasing funding and expanding activity will accept offers to leave for other universities.

Recommendations

- The institute should continue the good work it has done in the recruitment of researchers.
- All open positions in all faculty levels should continue to be announced internationally.
- Recruitment should be more structured and the application of official recruitment groups would be helpful. Career plans and career development policies are needed.
- In recruitment, collaboration with healthcare (needs of healthcare system) should also be taken into consideration.
- Working in many places and lack of space is a problem that may even complicate new recruitments and challenge the quality of research. Urgent solutions for both a shorter- and long-term are needed. This is an issue for the whole university as well as SA, IoM and DPH.

B3. Career structure

Strengths

- International postdoctoral training is encouraged among the younger faculty. The measures taken strengthen the institute's research area and support research-based teaching. They also provide ingredients for a broader career strategy for the institute.
- International postdoc training is encouraged. This is good, and shorter and longer training in foreign universities and departments is recommendable, in general, and in top universities and departments, in particular.
- For public health researchers, the career development includes contacts with

national and regional stakeholders like healthcare, social security, and local public and private bodies.

- The link between research and teaching is emphasised, and all faculty should participate in both research and teaching. It is an inherent idea of university that teaching is based on research.
- Researcher-clinician careers, including young clinicians in primary health, are supported by special arrangements. This is justified and supports teaching given in primary health.
- The above arrangements are beneficial for adding the integration of DCPH to the Institute of Medicine and support the plan for a School of Public Health that has been launched.

Weaknesses

- There is a need to increase international PhD training and PhD students should be encouraged and supported to do part of their work in foreign universities and institutes.
- As for postdocs, personalised career-track development support should also be provided for PhD students. Although the institute's measures cover a range of important career issues, they do not yet constitute a full strategy for career structure.
- Young scholars are in need of special supervision in their career promotion.
- On the other hand, young talented scholars are natural supporters of their peers in research training as well as career development. This needs recognition and promotion.
- In addition to the clinician-researcher career and collaboration with local stakeholders, broader career developments should be considered. Scholars within public health and community medicine should seek expert careers also within local, regional and government positions, administration, international positions and global health.

Recommendations

- Departments can develop mentoring, arrange courses, seminars and visits that support young scholars' careers.
- Departments can be instrumental in developing peer supervision and support as well as career development among junior scholars.
- Arrangements to support junior scholars' expert careers within local, regional and government positions, administration, international positions and global health should be considered.
- The tenure-track route to promotion has proven a successful career instrument and needs to be continued and further developed. The institute has done good work in strengthening its career structure and this should be continued.
- PhD students' international training should be increasingly encouraged and supported as well as expanded. Personalised track development should cover all staff and faculty.
- For a good career structure, the institute needs to consider equally those who are on the professor track and those who are not. The career structure measures

taken so far cover several important issues and could be developed into a full career strategy in the future.

B4. Funding

Strengths

- The institute has been successful in acquiring external funding, which has increased substantially. This is a major support for research and academic work. In addition, internal funding such as ALF is important and provides opportunities for research and teaching. The success in funding translates into success in research, publications and academic development.
- The institute administration is being centralised; this will help department heads to focus better on funding strategies and increasing funding. External funding is a most important resource for successful research.
- The university and IoM safeguard salaries, but all other costs have to be covered by external funding. This is well recognised.
- IoM has seen a strong increase in external funding, of which the Department of Molecular and Clinical Medicine accounts for 70%.
- A substantial part of DPH funding, and its increase, is due to regional funding sources (Region Västra Götaland). This is successful and opens future opportunities. Regional projects also allow practical applications of public health research in the community around the university.
- DPH has also benefitted from ALF funding (medical education and research in healthcare).
- Support is given for the preparation of funding applications and research advisors and a professional editor have been hired by IoM and SA to increase the quality of applications and their chances for acceptance.

Weaknesses

- Despite the success in funding, there are underused funding sources, which could be better used. These include EU funding in general, Marie Curie fellowships and Horizon 2020 funding.
- Within the institute, the funding received is unequally distributed. One department has been particularly successful and accounts for a large part of the funding and its increase, whereas other departments have maintained their funding at a lower level.
- ALF funding is stably low for DPH compared to the Departments of Molecular and Clinical Medicine and Internal Medicine.
- Moving all financial management to IoM may also be taken as a sign of centralisation, which potentially affects collegiality and independence of teams negatively. In any case, the change is followed by new leadership challenges.
- Teams tend to save external funds, which should be used for research purposes.

Recommendations

- The funding success needs to be sustained and further strengthened to enable and increase high-quality research. Support for funding across all departments

would lead to a more equal distribution of resources and a balanced development within the whole institute. Such development would provide opportunities to further the level of external funding.

- Important and underused funding sources such as EU funding should be better considered in the future. The institute should make the most of the reorganisation of the administration to support department heads and seniors in focusing on increasing external funding.
- It is important to support departments and units with lower levels of research funding, such as DPH, in order to safeguard a balanced development of departments and the research and teaching within them.
- Departments and units can learn from each other. The stronger ones are in a key position to support and guide those with weaker external funding resources.
- Teams often save external funds for continuity and job security purposes. However, use of funds for research should be efficient and team leaders may need to learn better financial management. Professionals and experienced seniors can be helpful in teaching younger team leaders. Courses for project management are likely useful.
- More concretely, research advisors and editors are useful in the preparation of applications.
- Grant applications among women need special measures to be able to increase gender balance in funding.
- ALF funding is also at a low level in DPH and needs support to avoid the imbalance.
- The university, SA and IoM should strive to extend local and regional funding. This has been important for DPH, and regional funding should be strengthened further. Other departments may equally benefit from public and private regional funding sources.
- National research funding should be extended to cover better international funding from Nordic, EU and other multilateral sources.
- National and international collaboration between teams, including broader networking, is instrumental for cutting-edge research and international funding opportunities.

B5. Feedback and evaluation

Strengths

- The recruitment of a professional communicator has been an important step in improving the academic environment of the institute. It provides the institute leadership with excellent opportunities to inform staff of ongoing research and educational activities, possibilities for funding as well as any other matters of importance.
- The institute has implemented a system of annual development interviews to discuss individual development and support needs for staff.
- The significance of assessment, feedback and evaluation of research environments and outcomes is recognised.
- Feedback and evaluation are mainly provided by heads of department, who give

- direct feedback to individual scholars for their research and teaching.
- Feedback is also given in annual development interviews.

Weaknesses

- There is a tendency that feedback in staff assessment focuses only on the positive side and what is working well. Although this may be good for the self-confidence of staff, it may not always be optimal for individual career development or for the academic performance of the institute. This issue was brought up as a general problem for the university at the feedback session with the Vice-Chancellor during the site visit.
- Head of Department-employee feedback is important, but remains only individual. Feedback and evaluation are needed at all levels: individuals, teams, centres, units and departments.
- Feedback and evaluation are not one-dimensional processes, but go from management to staff and from staff to management.
- Topics of feedback and evaluation should be clear and have a broad coverage, including research outcomes, environments, leadership, recruitment, funding and staff satisfaction.
- Systematic procedures for feedback include both predefined topics and open topics as well as follow up.
- Feedback is not only a formal procedure, but also part of the academic culture and can be given informally in everyday occasions.

Recommendations

- The institute should continue developing the information platforms. There is still a lack of knowledge among staff of funding opportunities, availability of core facilities, possibilities for career development and many other matters.
- Much focus should be put on establishing web-based platforms where such information is easily available. Daily newsletters providing links to news articles related to the institute, important scientific publications and research policy is something that many large departments have and is much appreciated by staff.
- The institute should also review its routines for staff quality assessment and quality improvement to ensure that these are of international standard. Recognise that feedback and evaluation are important to the staff and faculty and, if successful, strengthen research, improve research environments, and contribute to the quality of research.
- Develop feedback and evaluation at all levels within the department, not just for individuals.
- Feedback and evaluation should not only concern individual employees and junior staff, but also seniors and the management.
- Feedback is a two-way process from top to down and down to top.
- In addition to face-to-face feedback and evaluation, electronic sites can be used as well as meetings and boards.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

There are a number of collaborations and networks within the University of Gothenburg (i), with other Swedish universities (ii), and internationally (iii):

- (i) GÖthenburg Cardiovascular RegisTry Studies (GOCARTs) is part of the VR-financed Swedish Initiative for Research on Microdata in the Social and Medical Sciences (SIMSAM), initiated at SA in 2014, and capitalises on the strong tradition of collaboration between clinical research and cardiovascular epidemiology in Gothenburg, including GUCH (Grown-Up Congenital Heart disease), heart failure, cardiomyopathies, atrial fibrillation, hypertension, diabetes, obesity, and several more. To date over 100 papers from this constellation have been published, many in high-profile journals.
- The Centre for Intellectual Property is an interdisciplinary development centre focused on knowledge-based business that provides a platform for the promotion of research, education and collaboration based on the strategic management of intellectual assets, and is jointly governed by Chalmers University of Technology, the University of Gothenburg, and the Norwegian University of Science and Technology. Its mission is to transform knowledge into wealth and welfare.
- (ii) An important national collaboration is the observational cohort study SCAPIS, which aims to increase understanding of cardiovascular epidemiology in middle-aged people by combining detailed imaging with functional analyses of the cardiovascular and pulmonary systems of 30,000 people. This collaboration has hitherto generated 15 papers since 2015 and many more are planned.
- The prospective Swedish Obese Subjects (SOS) study of health outcomes after bariatric surgery has generated a large number of papers in top journals. The findings have contributed to guidelines and treatment recommendations for obesity and type 2 diabetes, both nationally and internationally.
- (iii) An example of the development of international quality research is the PURE (Prospective Urban and Rural Epidemiological) study in collaboration with the Population Health Research Institute, McMaster's University, Hamilton, Canada. This collaboration on the incidence and clinical presentation of cardiovascular disease over time and geographical location has generated 40 papers since 2011, many in top journals such as *NEJM*.
- Several of the faculty have excellent tracks as national lead investigators for numerous large-scale international clinical trials. For example, several publications in high-ranking journals have resulted from the APPROACH-network, a global consortium of centres involved in research on adult congenital heart

disease. This network involves close collaboration both internationally and locally with the Institute of Health and Care Sciences.

- The Transatlantic Networks of Excellence “*Gut Microbiome as a Target for the Treatment of Cardiometabolic Diseases*”, funded by the Leducq Foundation. The aim of the project is to understand how microbes in the gut contribute to the development of cardiovascular disease. Subsequently, as a major goal of the network, they aim to develop therapeutic small molecules that might inhibit specific gut microbiome enzymes linked to human metabolic and cardiovascular disease.
- The large multinational Rome IV Global Epidemiology project will carefully characterise gastrointestinal symptom burden across the globe and assess factors of importance for these symptoms. This will be achieved through a population-based survey in 33 countries across all continents including data from 80,000 subjects.
- Scientists at the institute are, and have been, involved in numerous EU-funded projects including: RESOLVE; EMIF-Metabolic; Drug the Bug; Novel Mechanisms of Site-Specific Regulation of Bone Strength; PROMISS; Interreg-EnviSuM (Environmental Impact of Low Emission Shipping: Measurements and Modelling Strategies of the Interreg Baltic Sea Region); Metagenome and Bariatric Surgery: New Avenues to Treat Metabolic Disease; Mucus and Metabolism; HILYSENS II; NeuroGut: European Training in Neural Regulation of Intestinal Function; HealthPort; and Health 2 Market.
- The Department of Public Health and Community Medicine collaborates with several international partners and research networks, which have helped to produce a reasonably large number of publications, including high-level papers in top journals.

Weaknesses

- Overall, interdisciplinary and multi-disciplinary collaboration across departments has not yet reached its full potential. Groups and departments seem not to share many cross-cutting themes or research strategies; this leaves groups working in parallel or in separate silos. Especially clinical and medically-oriented research and more social science and human-oriented research seldom seem to be combined to solve practical or societal challenges and problems in creative ways.
- Informal collaboration with non-academic actors as well as co-creation with other societal actors seems to be in its early stages and mostly limited to some groups only. The new unit for Innovation and Entrepreneurship still seems to lack links and collaboration with the different departments and levels of the university; the concept of innovation from basic to clinical research to implementation and utilisation and further, via evaluative studies back to science, has not been operationalised yet.
- Further, co-creation or co-development activities related to health and wellbeing with special interest organisations such as industry, NGOs, and the public sector, is in its early phase.
- The rather limited scale of international collaboration is also reflected in the around 20% share of publications being co-authored with international partners.

Recommendations

- Initiate and support transdisciplinary collaborations and networks, such as between basic scientists and clinicians, and increase multidisciplinary collaborations.
- Further develop recent activities in the direction of increased co-creation with non-academic actors, NGOs, and potentially private sector actors.
- Continue to develop international collaborations, in particular, to increase research partnership, international research funding (e.g. EU and NIH) and co-authorship of publications.
- Continue to develop the unit for Innovation and Entrepreneurship. This has been awarded a dedicated grant directly from the Swedish government to broaden and increase knowledge in innovation, entrepreneurship and utilisation.
- Continue to develop both national and international collaborations, although the bibliometric data show good figures for this (70% of the institute's publications are co-authored with an external organisation, and approximately 20% are co-authored with international organisations).
- Support transdisciplinary collaborations and networks, such as between basic scientists and clinicians. Increase multidisciplinary collaborations.
- The department could further develop its recent activities in the direction of more co-creation with non-academic actors, NGOs, and potentially private sector actors. In addition, one may ask if 20% of publications with international collaborations is enough. It is not clear how much interdepartmental collaboration there is in the institute.

C1.2 Collaboration with external stakeholders

Strengths

The institute's research focus on human health is implemented by collaborating with external stakeholders to make new medical discoveries, diagnostic tools and treatment, with an aim of developing new preventive medicine. This is achieved through a close interaction and collaboration with healthcare, industry and small biotech, and relevant stakeholders in society.

Collaboration with health care and registries

- The institute has close and extensive collaborations with Sahlgrenska University Hospital and primary healthcare in Region Västra Götaland. It has 18 adjunct professors and 10 adjunct senior lecturers, most of whom have their main positions within healthcare.
- The institute also has a long-term collaboration with the Centre of Registers Västra Götaland, which supports the development of around 25 national quality registers that are used to improve healthcare. One example, the National Diabetes Register, is an important infrastructure for clinical research in diabetes at the institute.
- The Head of Department for Public Health and Community Medicine is concomitantly manager of Swedish National Data Service (SND), which is a national resource that facilitates access to new and existing Swedish research

data within and outside of Sweden. SND also provides support to researchers in Sweden throughout the data management process.

- Several of the faculty are members of steering groups at the hospital, and the co-head of the institute is a member of the Management Board of Sahlgrenska University Hospital.

Collaboration in global health

- In global health, the institute has established a successful collaboration with the National University of Rwanda. This has resulted in three PhDs for students from Rwanda (two are medical doctors). Even if these studies are not at the scientific front line, they are very important for promoting academic research in low-income countries.

Collaboration with industry and private sector

- Active collaborations exist with AstraZeneca within cardiovascular disease and obesity, and within asthma and chronic obstructive pulmonary disease, among others. The institute strongly encourages close collaboration with AstraZeneca, as well as with other pharmaceutical companies.
- The institute in general, and the section at “*Östra Sjukhuset*” in particular, has over the years seen several physicians – who received their clinical, scientific and leadership training at the university hospital and the institute – leave for distinguished positions and careers at AstraZeneca. This illustrates and enhances close interactions with industry. There are several adjunct professors and adjunct senior lecturers from AstraZeneca.
- Several groups have successfully established smaller companies for taking innovations in improving health for patients with acute and chronic disorders to market. These companies are actively involved in several clinical trials.
- Close collaborations and funding and/or research grants from BioGaia and Metabogen regarding probiotics studies.
- The Unit for Innovation and Entrepreneurship runs a large number of research- and company-based projects that serve as study material for research in utilisation. These have implications for future research at the department in general as expertise, methods and tools for utilisation are established.

Weaknesses

- One questions the independence of research when collaboration builds largely on working closely with only one private company. In addition, although collaboration with private sector and start-up initiatives are welcome in principle, one would expect an explanation of the structures, principles, and safeguards in place to protect independent research and publishing.

Recommendations

- Apply and engage in mobility programmes between the institute and pharmaceutical industry.
- Clarify the activities or plans related to potential mobility programmes, as well as the safeguards for guaranteeing independent research and research integrity

in collaborations with private sector actors, especially when concentrating collaboration largely on one private sector company.

- Continue development of platforms to facilitate clinical research in other diseases, with the Clinical Rheumatology Research Centre as a model.
- Expand epidemiological studies on population-based registries and cohorts to the Nordic countries but also internationally.
- Explore the funding opportunities in EU Innovative Medicines Initiative (IMI), a public-private partnership aiming to facilitate partnership funding for health research and innovation.
- Promote innovation and establishment of (small) business enterprises/bio-tech companies.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- Centralisation of the administrative staff for more efficiency and higher quality of issues related to e.g. economy, HR activities, as well as provision of appropriate resources to the leadership/chair of the institute, is a major advancement.
- Within the Department of Public Health and Community Medicine, intra-departmental management seems to function very well. New support structures, such as the Health Metrics Unit, have good potential to support research.
- The scientific editor recently hired is an asset in article and, potentially, grant-writing.
- The institute established the “Unit for Innovation and Entrepreneurship”. Recruitment of a highly merited and experienced adjunct professor to the unit is strategically a very important step for utilisation of research.
- The Department of Public Health and Community Medicine plays an active role in governmental work in investigations and commission.
- The institute supports the utilisation and practical application of research-based knowledge by the action-based education of students at the *Sahlgrenska School of Innovation and Entrepreneurship (SSIE)*. In a two-year course, theory is mixed with practical experience working with projects based on research from the university, but also from the public health sector and the private business sector. The second year consists mainly of practical innovation work on the projects.
- Since 2008, SSIE has driven over 125 projects and created an interdisciplinary learning environment via collaborations with multiple actors, including the regional innovation platform, Sahlgrenska University Hospital, Sahlgrenska Science Park, AstraZeneca BioVenture Hub, UGOT’s Grants and Innovation Office, Chalmers Ventures, Chalmers School of Innovation, UGOT’s School of Business, Economics and Law, UGOT’s Centre for Intellectual Property, and several big companies such as Philips, Nestlé, Parc, Novartis, Volvo and Ericsson.

Weaknesses

- Centralised support in grant acquisition, grant-writing (e.g. EU grants) and helping to form research teams across departments for multi-disciplinary grant proposals, does not seem to be in place or fully developed. It seems e.g. that the Health Metrics Unit does not have resources to serve the need for methodological consultancy on a daily basis. Further, there is a need for more work across groups and departments to exchange and share expertise, advice and support e.g. in research methods. Still, inter-generational transfer of skills could be strengthened to avoid gaps in knowledge.
- Many researchers may not be aware of the free opportunity, offered by the Unit for Innovation and Entrepreneurship within the institute, to test utilisation of their research. Strategies, policies, and rewarding mechanisms for utilisation of research-based knowledge could also be strengthened.

Recommendations

- Provide structures and internal policies for the availability of expertise throughout the institute, especially in the areas of methods expertise availability (including methods for qualitative research), grant-writing support, support for innovation development, implementation and utilisation, plus for evaluating the usefulness, acceptance and cost-effectiveness and impact of innovations.
- Promote a systematic approach to stimulate research utilisation. Ensure that utilisation is integrated in the culture of the institute.

C2.2 Research relevance and impact on society

Strengths

- In general, translational research is strongly emphasised and visible in the institute; this is especially true for the translation from laboratory to clinic. Further, initiatives such as the Unit for Innovation and Entrepreneurship at the Department of Public Health and the Sahlgrenska School of Innovation and Entrepreneurship (SSIE) offer very promising structures and channels for knowledge co-creation beyond the clinic, to wider society and stakeholders beyond academia and healthcare. The Department of Public Health and Community Medicine does highly relevant research and development work globally. This is also true for the Department of Internal Medicine and Clinical Nutrition, as well as the Department of Rheumatology and Inflammation Research.
- In addition, collaboration with the regional innovation platform, Sahlgrenska University Hospital, Sahlgrenska Science Park, AstraZeneca BioVenture Hub, UGOT's Grants and Innovation Office, Chalmers Ventures, Chalmers School of Innovation, UGOT's School of Business, Economics and Law, UGOT's Centre for Intellectual Property and several big companies show active interest in knowledge translation. Moreover, several small spin-off biotech companies have been successfully created by members of the institute (for example, Metabogen).
- There is an impressive activity at the institute, with participation in writing and defining national and international guidelines, and participation in consensus

groups for the treatment and monitoring of diseases within the areas of faculty expertise.

- Several RRCTs have been performed within the SWEDEHEART platform; VALIDATE-SWEDEHEART, iFR-SWEDEHEART, DETOX-SWEDEHEART, COMPARE-ACUTE. These studies have had an immediate impact on developing international clinical guidelines (ESC/ACC/AHA) and as such, have improved healthcare outcomes in patients with ischemic heart disease. Faculty from the institute have been involved in steering committees, generation of research hypotheses, proposing and prioritising RRCTs, and the inclusion of patients and analysis of clinical trial data.
- Within the Department of Public Health and Community Medicine, some of the UN's Sustainable Developmental Goals have high relevance in the research, including global health. Also, research in occupational health is of relevance to the UN goals. In addition, the department has developed a collaboration with the National University of Rwanda, with a mutual exchange of knowledge and research to encourage well-educated professionals in Rwanda to remain in their national healthcare and university system.
- Examples of practical applications based on academic research at the Department of Internal Medicine and Clinical Nutrition are: the Neurogastroenterology Research Group are aiming to establish infrastructure to facilitate collaboration with primary care facilities; the Clinical Nutrition Group has a strong national reputation in clinical nutrition and as well as very popular teaching programme for dieticians; the Clinical Endocrinology Group has a translational profile and broad portfolio of projects with priority for healthcare; the Clinical Allergy/Asthma Group are aiming to merge clinical epidemiological and registry data to expand current knowledge involving pharmaceutical industry; the Exosomes Group presents successful examples of clinical translation of basic science to the establishment of two companies related to respiratory disease and cancer; the Clinical Osteoporosis Group presents RCTs investigating the effect of probiotics on bone and its metabolism, identifies predictors for fall injuries and fractures, and by using multiple large and combined registries to study treatment outcomes with diabetes and osteoporosis medication; the Translational Osteoporosis Group have described genetic determinants for fracture risk, novel markers of fracture risk, novel fracture targets as well exploration of a novel field "Osteomicrobiology"; the Clinical Respiratory Medicine Group have a focus on sleep disordered breathing and COPD, with new pharmacological treatments in sleep apnea and cardiovascular monitoring.
- Examples of practical applications based on academic research at the Department of Rheumatology and Inflammation Research are: outcomes of disease and treatments in population-based registers for axial-SPA, RA and gout; biomarkers as risks for axial-SPA RA and gout; genetic risk scores and imaging by MRI as predictor of structural lesions in axial-SPA.
- The Department of Public Health and Community Medicine aims to improve public health at individual, institutional and community levels by translating research and new findings into policies and practice through close collaboration with society and stakeholders. Examples of practical applications based on ac-

ademic research at the Department of Public Health and Community Medicine are: research on health effects of air pollution, noise, and heavy metals; this is instrumental for decision-makers at national, European and global levels. In addition, brief interventions in alcohol consumption and mental health areas, as well as small spin-off companies which have been created, are good examples of applied research.

Weaknesses

- In general, the concept applied to translational research seems to end when the research knowledge has been delivered to healthcare. The full circle of knowledge management, from research to implementation, evaluation and feeding back to research, is not present in the institute programmes. Especially, active involvement of stakeholders: citizens and their sub-groups such as minorities, seems to be rare if not non-existing, except maybe in occupational health interventions.
- Active evaluation of the developed and produced guidelines in terms of adherence to the guidelines, their impact and cost effectiveness of changing practice and health outcomes, seems to be lacking.
- Communication about science with societal stakeholders seems to be a challenge. Research outcomes that are most important for generating a direct and indirect impact in society, such as reports, non-academic publications, disseminations and outreach items, instruments, infrastructure, datasets, software tools and designs, need further development. There are some examples of non-scientific publications such as “*Arbete och Hälsa*” and related highly-relevant lay language reports, but in general it seems that the institute relies on science/ scientific communication mainly.
- There is no mention of a follow-up of the adherence or impact of the guidelines produced based on conducted research. Non-academic publications, outreach actions or dissemination activities (with the exception of systematic reviews being distributed in *Arbete och Hälsa*) are not described in this section.

Recommendations

- The independence of strong research groups should be maintained. The most successful groups should be prioritised for additional support over less productive groups. The groups demonstrating high-impact research activity should be provided with the means to strengthen other missions of the university. Thematic areas of scientific opportunity that are consistent with the expertise of the institute’s faculty could be prioritised for strategic investments and development. Expand outreach to society e.g. by finding out how the produced guidelines have been adhered to and implemented in healthcare and what kind of impact they have had beyond healthcare in society, e.g. in improving health status, reducing costs, improving equal access to care etc. Increase the institution’s role in using research knowledge to advise decision-makers.
- Dissemination of non-academic research products could be enhanced. Then, maybe involvement of societal stakeholders such as lay people, communities, NGOs etc in the research needs mapping, planning and evaluation of research

impact on society, could be considered. Cross-disciplinarily and sectorial collaborations should be strengthened to implement (translate) research results not only in the clinic but also in society. Existing projects should be further extended into research and health-promoting projects.

- Promote a systematic approach to stimulate research utilisation. Ensure that utilisation is integrated in the culture throughout the institute (one door principle). Inclusion of utilisation in research, teaching, and on the management agenda, can change the culture and have impact in society. This requires an active effort and investment, as well as active support by the university. It is complementary that a new national knowledge organisation is now being formed for all disease areas and clinical specialties. The institute should encourage clinical researchers to actively engage in this work.
- The Department of Public Health and Community Medicine also has competence in human rights and health, which should be further developed to boost national and international research in areas of relevance for public health and reduced inequalities.
- A growing interest in migrant health should be further developed through collaboration with Angered Hospital and other stakeholders working with migrant public health.
- The workplace is a source of stress-related factors such as sleep disturbances, nutrition, physical activity, noise, job strain to mention a few. Existing projects should be further extended into research and health-promoting projects.
- Inclusion of utilisation in research, teaching, and on the management agenda, will in the long run change the culture, and impact will be a natural effect of all activities. This requires an active effort and investment, as well as active support by the university.
- The two positions of professor in global health that are under appointment should be given special attention.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Most teachers of undergraduate studies have a PhD and are active in research projects. In some courses, PhD students are also involved in teaching. Teaching in clinical courses is also done by clinicians at Sahlgrenska University Hospital without academic positions at the university. Most of these clinicians have a PhD and many are active in research, but to different extents.
- Senior members of the institute (senior lecturers and professors) take care of the management of education, including the development and improvement of educational programmes and courses.

Weaknesses

- There seems to be an imbalance between faculty members in the amount of teaching they perform; for some the teaching load hampers research tasks. Some high-profile teachers are not involved in undergraduate teaching. Further,

clinical teachers not employed by the institute do not have access to pedagogical development.

Recommendations

- Distribute teaching assignments more evenly between academic staff and encourage all staff to engage actively in research. All professors should, on a regular basis, engage in some way in undergraduate teaching. It is important for undergraduate students to meet highly merited academic role models.
- Find support for clinical teachers for their career pathways, including pedagogical training/ courses. Regular meetings for professors, which are planned to discuss e.g. this issue, might help; however, it is recommended to include different levels of staff in the planning of researcher-teacher work balance and career development.
- Further link research and educational activities for complete academic environments and better link research and education/teaching.
- Create opportunities in undergraduate clinical courses for high-profile research leaders and other non-clinical researchers to contribute to teaching.
- The link between research and teaching (=research-based teaching) needs higher profiling.

C3.2 Doctoral education

Strengths

- The institute has a rather large number of doctoral students; the majority of them at the Departments of Molecular and Clinical Medicine, Internal Medicine and Nutrition, and Rheumatology and Inflammation. Some are employed at the department, others outside academia and at the hospital, indicating fruitful research collaboration with healthcare.
- Most PhD students are part of larger research groups and in an active research environment. Here, research groups have regular meetings and journal clubs for the discussion of research results and methods. Some of the PhD students are also involved in national research schools, such as the National Research School of General Practice.

Weaknesses

- Clinical PhD students (majority of PhD students) may sometimes be distanced from the academic environment as they work mostly in the clinic under the supervision of one or two clinicians. Their education may be weaker in academic culture, methodology and critical thinking.
- There seems to be a need for more networking, club activity, writing clubs, mentor functions and in general, exchange and communication among/to the doctoral students. There seems also to be rather little mobility and exchange options and/or activities for doctoral students to learn from different environments, cultures and sectors.
- It is not clear how active the journal club is and other PhD student activities, especially when it is known how dispersed the research groups are geographically.

Recommendations

- Link doctoral students who are health professionals working in the clinical environment (in hospital or general practice) closer to the university academic environments by contacts within translational research centres.
- Encourage clinicians to perform part of their PhD studies in the translational centres, including engaging in laboratory-based work.
- Potentially joint PhD programmes could be built between academia and industry, public sector etc.
- Increase the meeting points and possibilities e.g. institute gatherings, workshops on selected themes and skills, e.g. PhD days, junior scientist lunches etc.
- Develop and build mobility opportunities for doctoral students outside the home departments, home institute, home country. In particular, PhD students should be encouraged to interact with and visit institutions abroad.
- Encourage PhD students to develop career plans early in the training period to be discussed with their superiors/mentors at the annual performance interview.
- Develop and encourage an early possibility for research training/exposure to science in the curricula for medical and other professional students. By this, recruitment of professionals to academia will increase. The system will also take advantage of the high motivation, energy and passion younger trainees often express.
- Develop a strong and comprehensive mentoring programme for PhD students and junior faculty. Such a programme could include training in preparation of research grant applications and enhanced communication skills.
- For Clinician PhDs a co-supervisor from the university should be part of the supervisor team to strengthen the academic influence. To encourage a tighter collaboration between academia-clinic a suggestion is to establish a Medical Students Research Programme with a PhD on top (medical faculties in Norway have established this with huge success).

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The academic culture seems to foster and support high academic excellence. The leadership has focus on the individual researcher and aims to coach and support the individual – research and education, to encourage senior well-established faculty to be “good citizens of the institute” and role models, and to encourage faculty to consider how they can contribute to the department/institute/university and not vice versa. The institute cherishes supporting leadership, and a transparent and supporting environment for all; it provides training and seminars, collegial examination of applications and mentoring, multinational staff, integrity of researchers and research.
- The institute aims to stimulate utilisation and translation of results to clinic;

it also supports close and trusting interaction with healthcare, including the Sahlgrenska University Hospital and primary healthcare.

- The leadership encourages young talented researchers to establish themselves as independent scientists. In addition, international recruitments are encouraged.
- The leadership nurtures a culture that is conducive to high-quality research and renewal, with regard to stimulating an interactive environment to achieve a collegial culture through seminar series, international guest professors, mentoring of junior researchers, common meeting areas, transparency and a culture of express one's own opinion, and celebrating the individual researcher's success.
- One of the best ways researchers can avoid and resolve ethical dilemmas is to know both what their ethical obligations are and what resources are available to them. The institute promotes an academic culture (at all levels, including decision-making) where results and findings are shared, good records of research activities are maintained, data is reported objectively, conflicts of interests are disclosed, animals and patients are treated with respect, ethical guidelines are adhered to, and contributions from other researchers are respected. The institute will also work closely with the new Ethics Committee at Sahlgrenska Academy.
- Work is underway towards finding a structure to better integrate research and teaching. The institute aims to stimulate utilisation and translation of results back to clinic, and will continue to stimulate a close and trusting interaction with healthcare, including the Sahlgrenska University Hospital and primary healthcare.

Weaknesses

- The institute does not have strong international mobility programmes or support for young researchers – neither for incoming nor outgoing mobility. Integration and balancing of research and teaching is not very strong either.
- Interaction between different disciplines and departments is not very active yet. There is also a lack of common research themes or research strategies, especially strategies to solve societal challenges by combining high-level research with implementation and involvement of societal actors and sectors in research planning and evaluation.
- Comprehensive approach to utilisation and translation of results not only to clinic but also to wider society is not very strong yet.

Recommendations

- Build (international) mobility programmes, balance research and teaching activities and duties, build multi-disciplinary and multi-sectorial research in collaboration with societal actors and stakeholders to solve health and social challenges.
- Support networking of junior and senior academics and provide opportunities for exchange across department borders; provide e.g. research methodology infrastructure and expertise and services so that they are easily available, provide access to necessary infrastructure such as registry and other data also for juniors.

- A better culture and strategies for utilisation and translation of results to clinic but also beyond clinic to wider society; more appreciation of applied science is needed.
- A better structure for integration of research and teaching is needed.

D2. Publication

D2.1 Publication strategy

Strengths

- The strategy is based on excellence and high-quality publications (high-impact journals) are promoted. By a pragmatic approach it is acknowledged that there is a balance and that not all publications can be published in high-impact journals.
- The institute is committed to providing resources to support high-quality publications and has employed a professional scientific editor. A key role is to provide constructive criticism at an early stage of the writing process, and to educate junior and senior scientists in the art of scientific writing and publishing e.g. via writing courses and with the support of a scientific editor.
- One-week courses in scientific writing are organised with three professional scientific editors. The course comprises lectures about the writing process each morning followed by interactive sessions in the afternoons in which the attendees work on their own partially prepared manuscript and receive feedback from the three teachers. The course is informal with maximum interaction (as it is limited to 12 course participants). In the future, the course will be organised for the entire institute.
- ‘Open access’ aims to make the findings of research freely available. As sharing new knowledge benefits researchers, the education sector, businesses and others; this concept is supported. However, the institute does not finance the open access fee for faculty or staff.

Weaknesses

- The institute does not have a system in place to financially support open access publications and open science principles are not integrated in the institute work.
- It seems that there is no alternative crediting system for publications that are closer to local practices and more applied science, for which high-impact journals are not always relevant publication channels. This kind of knowledge dissemination strategy is not explicit in the institute.

Recommendations

- Find ways to finance open access publishing and to make preparations for the open science future.
- Increase the awareness of PlanS and its potential implementation in 2020.
- Increase awareness (incl. identification policy) of predatory journals.
- A more realistic and comprehensive publication strategy is needed, rather than only targeting high-impact journals. In particular, different kinds of research (from well controlled basic science studies to locally tailored implementation and evaluation studies, including qualitative research when relevant) would be

necessary. The latter kinds of studies are important to solve practical problems and so enhance e.g. societal impact of research.

- The publication strategy should consider the whole career path and other work-related duties, such as teaching when enhancing manuscript writing and publishing.

D2.2 Analysis of bibliometric data

Strengths

- The bibliometric data analysis shows that there is both very high-quality but also (increasing) quantity of publications at the institute, even if there is variation between groups and departments; these differences can largely be related to the kinds of research and their salient publication channels – e.g. basic/clinical science vs. applied research.
- The analyses show that all departments have active international collaborations (with co-authorship) and that the publications are highly cited.
- Number of publications have increased from 2013 (around 200) to 2017 (round 280). In 2017, 200 of the publications are published in Level 1 journals, 68% of the publications co-authored with an external organisation and 20% with international organisations. The publications are highly cited (cf. (citations) value is 2.8).

Weaknesses

- About 20% of the publications are with international co-authors. This is a rather low percentage.
- No explicit publication strategy seems to be in place. Thus, it is not clear if there is any agreed policy or credit system (other than based on citations and high-impact journals) along the lines of the institute visions and goals e.g. in answering societal challenges and societal impact, including translational research, implementation and evaluation research, learning from practice etc.

Recommendations

- An important task would be to encourage interdisciplinary and inter-departmental, as well as international collaboration and themes that aim to solve wider societal challenges and generate added-value.
- It is also important to provide additional support e.g. in the comprehensive use of theory-based, research designs and methods, plus writing and communication skills to maximise the potential of high-quality research and ensure it is published in good and relevant publication channels for maximum impact.
- Studies have been published covering a wide area of research topics including basic and translational studies, epidemiology and registrar studies, public health and global health

D3. Facilities and research infrastructure

Strengths

- There are good facilities for research infrastructure such as biobanks, technological platforms, sample banks and registry data for clinical cohorts.
- Further, strong collaborative research networks give the opportunity to preserve, build and access “state-of-the-art” facilities, research infrastructure and biobanks.
- In addition, through the Impact Accelerator, the UGOT Grants and Innovation Office and GU ventures, there is infrastructure to facilitate the utilisation and commercialisation of research results.
- The lipidomics platform is linked to the national infrastructure for biological mass spectrometry (BioMS). The BioMS is hosted by Lund University with support from the Swedish Research Council and co-financing by Gothenburg and Lund Universities, Karolinska Institute, and Chalmers University of Technology.
- The Department of Rheumatology and Inflammation and the Rheumatology Department at Sahlgrenska University Hospital established a joint clinical facility in 2010 for both investigator- and industry-sponsored drug trials.
- Through the Rome IV Global Epidemiology Project there is access to global population-based data on GI symptom patterns in the population (33 countries across all continents, n=80,000) and factors of importance for these symptoms.
- In addition, there is access to a variety of specialised research premises, including a sleep laboratory and a noise laboratory, and strong infrastructures in epidemiology and health economy, a microbiome platform and a gnotobiotic facility.
- Strong external funding makes it possible to invest in new research infrastructure. The “state-of-the art” lipidomic platform is linked to the national infrastructure for biological mass spectrometry (BioMS). This excellent platform is well suited for research collaboration locally, nationally and internationally, as well as for multidisciplinary research and sectorial collaborations (healthcare and industrial).

Weaknesses

- Lack of space for translational and clinical research; many facilities are too old and non-functional for modern research, and lack of space prevents recruitment and expansion.
- The institute is located in a large number of places. This fragmentation prevents collaboration and synergies between research groups and between departments locally, but also in a multidisciplinary way.
- Centralised competence for bioinformatics and Big Data-handling seems to be lacking.

Recommendations

- Temporary solutions need to be developed until the more permanent buildings are ready. One such solution would be to establish a Centre for Multidiscipli-

nary, Translational Research on Inflammatory Diseases encompassing rheumatology, clinical immunology, gastroenterology, dermatology, asthma/allergy, chronic obstructive pulmonary disease etc.

- Establish a centralised core facility for bioinformatics and Big Data-handling.
- Consider establishing other centralised Core Facilities involving expensive instrumentations and advanced technical staff (could potentially be a faculty issue). Open and easily available core facilities are an important asset, making an institution attractive in connection with e.g. recruitment of academic staff.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The institute tries hard to keep equal opportunities and gender equality on the agenda. Since women are less likely than men to ascend to positions of power, a long-term objective is to give younger men and women the same chances to become the leaders of the future. Therefore, both men and women receive tasks and trust assignments. The institute tries to avoid overloading the (women) staff with too many assignments, which would be harmful to their research. When recruiting, a serious attempt is made to identify both successful women and men applicants.
- The institute adheres to the recommendation of the Science Europe Working Group on Gender and Diversity and it supports career planning for both genders.
- Career planning support for both genders seems to be in place; this should improve e.g. leadership opportunities for women.

Weaknesses

- The institute has a challenge since there is a tendency to lose excellent senior women.
- Women are less likely than men to ascend to positions of power. In total, the institute currently has more men than women as faculty members.
- Career development counselling and support for all juniors seems not to be explicitly announced.

Recommendations

- A more explicit strategy and good practice could be put in place to enhance and maintain gender balance and diversity.
- An explicit strategy and programme for career development strategy and counselling is needed for junior staff.

D4.2 Internationalisation

Strengths

- The institute encourages international recruitment and all positions are announced internationally and are open for free competition.

- International exchange is encouraged, by promoting international postdoctoral training and international Guest Professors.
- Several seminar series regularly invite international speakers.
- Involvement in EU projects and other international networks stimulates international exchange.

Weaknesses

- International exchange and mobility strategy and programmes are not very visible and strong.
- Only one fifth of the publications in the institute include international co-authorship.

Recommendations

- More international mobility programmes could be built, strengthened and financially supported for all academic levels from juniors to seniors, and both for incoming and outgoing mobility.
- Try to engage more in international research projects, e.g. EU-funded projects. Also, it is recommended to register as expert evaluator positions for EC research programmes; these tasks are excellent opportunities for learning and further motivating applications for international funding.
- The EU Marie Skłodowska-Curie actions should be fully explored for increased internationalisation and mobility of young researchers to strengthen their academic careers.
- Promote international exposure and experience for PhD students incl. financial support.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- It was the impression of the review panel that the institute takes this task very seriously and that it is actively working to develop internal research support. Several important steps have already been taken, including the organisation of courses on writing scientific manuscripts and grant applications, internal advisory boards, collegial review of applications from junior staff and running of a seminar programme at the highest international level. There are also plans to hire an additional scientific editor and a research advisor at the faculty level to provide support in the preparation of more strategic grants.
- Internal support is important to the faculty and the staff. Courses in writing, support for grant applications and mentoring, as well as a professional editor at the institute, are all helpful for the faculty.
- Departmental seminars with international participation form a part of general career support for research work.

- An emphasis on gender issues is justified to avoid male bias in various aspects of research work and environments.
- There is an awareness that the full potential of international research has not yet been reached.

Weaknesses

- Support for working on applications to EU framework programmes, ERC and the new European Innovation Council, could be improved; as could the support for handling the administration of approved EU grants.
- Particular measures and even programmes to support younger scholars, PhD students and postdocs, are important and helpful for their research work and career development.
- Aiming at gender balance in research environments needs support and continuous consideration.
- Department administration is a shared resource, and research staff and faculty should participate in administration as well. A balanced division of labour in administrative tasks is needed.

Recommendations

- The institute should work with the faculty leadership to improve the support structure for international grants, primarily those from the EU and NIH.
- A basic course package for new and junior scholars could be developed. Such a package could include research skills, like writing, article publishing and conference performance, but also methodological and technical skills, data management, as well as issues like starting and leading research teams, and ethics.
- Measures to address gender balance and supporting women in research environments should be continuously monitored and women's research careers promoted. Support for grant applications and funding is important, but also broader areas should be covered, such as recruitment, skill and career development, including publishing and establishing teams.
- To add staff participation in administration, clear and even written policies would help avoid imbalance and the risk of conflicts. Participation in administration also supports the flow of information and this should be considered in departmental policies.

E2. Faculty and University-wide support

Strengths

- There is a variety of faculty- and university-level support for researchers, teams and departments provided by special bodies in the faculty and university administration. In addition, research advisors and administrators have been hired for these purposes. The support aims to enhance the international competitiveness of research.
- The faculty and university provide access to several core facilities of very high quality.
- Grant-writing, as well as applying and managing funding from international

sources, such as EU and NIH, is supported. For example, SA and the university provide support for financing indirect costs for international projects. This helps project management and lowers financial risks after funding is granted.

- Legal and contractual advice is provided for international projects and is available for applicants.
- The university library is supportive and arranges, for example, popular seminars for students and researchers.
- Communication and new media have become part of knowledge utilisation and need to be considered within academia. Research can also be communicated to wider audiences by providing news, using press releases, debate articles, public debates and various digital media channels. Support for such communication is available, although this is a novel and quickly changing arena.

Weaknesses

- Information on support for research may not reach scholars and teams. The university and SA are very large, and the complex and multilevel organisation sets further challenges.
- Wider communication and digital media use are novel in the university environment and support is needed. This is particularly important since there are also problems and even risks for academic work. For example, the “news logic” may be problematic as only part of research leads to “big results” and “breakthroughs” to be easily communicated. Similarly, aiming at “branding” and “brands” follow a logic that may fit business, but not necessarily universities and research.

Recommendations

- Develop faculty- and university-level support, such as the Grants and Innovation Office and research advisors and administrators, to better reach the department and unit level.
- Support should be given to junior staff to stimulate their use of available core facilities.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The panel thinks that the department has responded adequately to several issues raised in RED10 and has developed areas that were pointed out. The organisation was assessed as requiring major development, and the panel thinks that the current new leadership of the Institute of Medicine is working along several lines that adequately deal with the issues raised in RED10. The full scale of organisational changes cannot be fully accessed now. The plans are very ambitious, but sound reasonable and realistic.

F2. Other matters

The panel thinks that a strategy regarding improving academic culture and supporting innovation should be included in the overall strategy of the Institute of Medicine, and these considerations have been pointed out in other sections of the report.

CONCLUDING RECOMMENDATIONS

Please see summary in Introductory Remarks.

NEUROSCIENCE AND PHYSIOLOGY PANEL 1 – PHARMACOLOGY; PHYSIOLOGY

848	Introductory Remarks
848	Section A – Background and Research Standing
848	A1. Background
848	A2. Research standing
849	Section B – Leadership
849	B1. Leadership
851	B2. Recruitment
851	B3. Career structure
852	B4. Funding
853	B5. Feedback and evaluation
853	Section C – Complete Academic Environment
853	C1. Collaboration
853	C2. Relevance and impact on society
854	C3. Research-teaching linkages
855	Section D – Academic Culture
855	D1. Academic culture
855	D2. Publication
856	D3. Facilities and research infrastructure
856	D4. Transverse perspectives
857	Section E – Support
857	E1. Internal research support
857	E2. Faculty and University-wide support
857	Section F – Other Matters
857	F1. RED10 evaluation
858	F2. Other matters
858	Concluding Recommendations

INTRODUCTORY REMARKS

The panel consists of Nicole Schmitt, Niels-Henrik Holstein-Rathlou and Hans Hultborn (chair), all affiliated with the University of Copenhagen.

Process: The panellists read the material individually. The panellists met in Copenhagen to structure the schedule of the site visit and discuss overall questions to raise at the site visit. The panellist met at the beginning of the RED19 site visit to develop a questionnaire for the interviews at the department. We discussed observations and drafted the report at the end of each day.

Preliminary feedback was given on April 3 for the Department of Physiology and on April 4 for the Department of Pharmacology.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The institute was established in its present form through fusion of several smaller departments in 2006. The areas physiology and pharmacology already co-existed in a preclinical institute before the fusion into the Institute of Neuroscience and Physiology.

The institute is highly fragmented. In the departments we evaluated, staff define themselves as physiologists or pharmacologists rather than as members of the institute. This perception of fragmented identity is consistent throughout career stages. Senior staff are familiar with the overall structure, whereas junior staff are not.

Researchers collaborate across departments individually and only when it is research-driven. There is a strong collegial discussion culture. The entire structure seems to a large extent to be determined by teaching requirements. Hence, teaching requirements seem to limit the recruitment potential at the expense of new innovative research fields.

A2. Research standing

Overall, the research profile seems to be strong with many good individual researchers/research groups. Whereas some groups produce many publications with lower impact factors, others contribute with high impact factor publications. Mean normalised citations are as you would expect for very diverse and teaching-intense departments.

Overall the departments of physiology and pharmacology are internationally competitive, also reflected in international funding.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Institute leadership (Neuroscience and Physiology)

Strengths

- Competent institute leadership embracing modern definition of leadership.
- Leadership team is fairly new with high potential for new initiatives and leadership approaches.
- Focus on work environment and staff development.
- Focus on involving staff from all areas and departments into committee work to generate high degree of engagement and fair distribution.

Weaknesses

- Limited mandate and power due to delegation of budget and recruitment responsibilities to the departments. This appears to be a result of faculty/university politics.

Recommendations

- Develop a vision and mission for the institute based on common ground across departments.
- Facilitate interaction to increase coherence across departments, for example through joint seminars, retreats with institute leadership to discuss common ground, active engagement/ working groups to develop action plans following the RED19 evaluations, etc.
- Retain some funding at institute level with the purpose of allocating funding to specific activities that create new and innovative research and/or to integrate the fragmented departmental landscape by building research and teaching bridges between the departments.
- Develop transparent guidelines and policies for the possibility to relocate funds across departments when it becomes available (e.g. through retirement).
- Facilitate more synergies and collaboration between the departments with respect to teaching.
- Increase transparency about teaching/teaching load, e.g. through overview of teaching activities/load for the different departments and divisions.

Section leadership – Physiology

Strengths

- Due diligence and focus on creating synergies, especially with respect to interaction between endocrinology and metabolic physiology in the light of upcoming retirements.
- Due diligence to accumulate reserves to cover possible cuts when some senior staff are retiring and money may be withdrawn to faculty.

Weaknesses

- All economy is delegated to divisions/group leaders giving little space for innovative initiatives within or across departments.
- Structure and recruitment seem almost completely defined by teaching requirements.
- Unclear which initiatives are taken to integrate the different themes/physiology divisions.
- Unclear structure and transparency with respect to mandate and tasks of division leaders.

Recommendations

- Continue developing initiatives that can gather staff across divisions, e.g. joint seminars (as already planned at the time of the interviews).
- Engage actively with division and group leaders to define responsibilities and increase transparency.

Section leadership – Pharmacology**Strengths**

- High degree of staff involvement and ownership.
- High degree of oversight of teaching activities.
- Focus on fair distribution of academic services and faculty work.
- Environment where staff take responsibility and pride in faculty work.
- Consensus on new recruitments.

Weaknesses

- Structure and recruitment seem almost completely defined by teaching requirements.
- Teaching needs (large degree of teaching in Swedish) have negative impact on internationalisation, especially at senior staff level.

Recommendations

- Facilitate development of scientific interaction, e.g. through joint seminars/journal clubs.
- Recruit more clinicians and other resource persons (e.g. from within the institute) for teaching in pharmacology to reduce teaching load.

B1.2 Faculty/University level leadership**Strengths**

- Numerous initiatives within researcher support, e.g. mentor programme for junior staff, support from Grants Office, etc.

Weaknesses

- Unclear roles and mandate for faculty vs. institute functions.

Recommendations

- Increase number of truly open positions to encourage applications by researchers in innovative research areas that can complement and inspire existing fields.

B2. Recruitment

Strengths

- Strategic initiatives to revive or create themes, especially within physiology.
- Division “circulation” has been strengthened considerably, likely as response to RED10 evaluations.

Weaknesses

- Static, conservative and oriented to finding suitable teachers, especially in pharmacology (“*finding the best researcher among applicants that cover the teaching*”).
- Senior staff almost exclusively Swedish (one problem that was mentioned was non-competitive salaries and conditions, e.g. lack of possibility to provide start packages and alike).
- Cumbersome recruitment process (imposed by faculty and/or university) with large administrative burden, e.g. mandatory open announcements even for very short-term positions of less than a year, starting from periods of > 2 months.

Recommendations

- Stronger focus on establishing new cutting-edge research areas, cross bridging/integrating research themes/departments/divisions.
- Focus on an international environment also at the more senior level.

B3. Career structure

Strengths

- Well-functioning mentor programme for PhD students and postdocs, however organised at faculty level.

Weaknesses

- Institute suffers from “tenure-track” path (assistant lecturer) that leads to tenured positions at a very early career state (senior lecturer to professor). Evaluation of tenure-track, though external, does not seem to focus on competitiveness and potential for research excellence.
- The above implies that there are few open positions for senior lecturers and professors.
- Institute suffers from the ever-changing job structure and regulations put up by political stakeholders.
- Not all junior staff are aware of the faculty mentor programme.
- Lack of formalised career advice organised by either the institute or faculty (if there is, the staff appeared not to be aware of it).

- At the Department of Physiology, little information seems to be available about upcoming positions.

Recommendations

- Develop functional descriptions of job categories to define expectations towards tenured staff with regards to research production, teaching, external funding, academic citizenship and dissemination.
- Work more actively with outlining career pathways within and outside academia, e.g. organise a symposium where some of the institute's alumni present their work (and how they got there) to PhD students and postdocs.
- Increase transparency regarding teaching activities thereby generating a tool to enable junior staff at departments with lower teaching activity to teach at other departments with high teaching activity to warrant equal career chances across the institute.

B4. Funding

Strengths

- Reasonable amount of external funding, based on individual research quality.
- Collaboration with clinics allows for interdisciplinary grants, e.g. ALF grants.

Weaknesses

- Increasing challenges to obtaining external funding in some fields (general trend).
- Challenge of dependence on the focus of private foundations (general trend).
- Increase in governmental funding in the last years does not cover the increase of salaries, so implicit deficits.
- Vulnerable dependency on teaching budget, especially considering upcoming changes in the medical curriculum.
- Vulnerable dependence on teaching budget in the light of increasing drop-out rates (as we understood a general phenomenon in Sweden's higher education programmes).
- Possibly unexploited interdisciplinary and/or translational funding opportunities due to fragmented structure.
- In the physiology department, budget is very vulnerable to possible withdrawal of a research professorship fund by Sahlgrenska Academy.
- Enforcement of fixed amounts of overhead even when funder does not (or only limited) include OH, while the institute does not have any reserve to compensate and support, so problem is enhanced due to the decentralised budget.

Recommendations

- Reconsider the complete delegation of budget responsibility to departments and divisions to build up a reserve that in turn can be used to e.g. compensate overhead fluctuations, support research groups upon acute challenges, provide start-up packages, and alike.

B5. Feedback and evaluation

Strengths

- Training available for PDR-responsible staff from the university/faculty.
- For PhD students a feedback system is in place, organised and monitored by the Grad School.
- Regular leadership meetings with departments and divisions.

Weaknesses

- Formalised performance and development reviews (PDRs) have not been implemented.
- It appears that there is an inappropriate blending of PDRs with salary negotiations, which should in fact not be connected.

Recommendations

- Implement PDRs that are a valuable tool for personal and career development (and ensure sufficient training on how to conduct PDRs).

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- All groups appear to have collaborations on individual, research-interest driven basis.
- International mindset, state-of-the-art.

C1.2 Collaboration with external stakeholders

Strengths

- A number of researchers at the Department of Pharmacology seem to be involved in various public committees, contributing to guidelines.
- Large extent of collaboration with industry at Department of Pharmacology.

Recommendations

- More visibility of this type of collaboration, as it might have role model function for younger staff.

C2. Relevance and impact on society

Strengths

- Seemingly high degree of engagement of individual researchers in public debate,

guideline papers and dissemination activities, often supported by the faculty communication office.

Weaknesses

- Lack of a somewhat more formalised channel to get into contact with the public.

Recommendations

(None.)

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- The Departments of Physiology and Pharmacology are highly engaged in training students from several study programmes at the University of Gothenburg.
- The Departments of Physiology and Pharmacology host a high number of medical students in the competitive research assistance programme (*Amanuens-programmet*), thereby attracting students to research and assisting in teaching.
- The Department of Pharmacology has regular teaching meetings with different topics within didactics, course development etc.
- The Department of Pharmacology encourages formation of teaching teams for peer-feedback of teachers and course development.

Weaknesses

- Vulnerability to upcoming changes in curricula.
- In physiology, there seems to be an uneven distribution of teaching across the divisions, detailed updated teaching records were unavailable.
- Tendency that research-intensive groups contribute less to teaching.
- High teaching load seems to leave little capacity and resources for updating the curriculum and/or developing courses to embrace modern teaching and learning concepts.

Recommendations

- Increase transparency of teaching activities as mentioned in sections B1.1 and B3.
- Exploit in-house (institute-level) competences and expertise.

C3.2 Doctoral education

Strengths

- Departments host several PhD students enrolled in the promising and competitive PhD programme for pre-clinical research, including a focus on teaching.
- Inclusive environment.
- High degree of social interactions across groups and divisions and (to considerably lesser degree) departments.
- Faculty mentor programme.

- Close integration of teaching into this career stage, most PhD students seem to fully embrace their teaching (at least those we spoke to).

Weaknesses

- Lack of consequences upon a negative assessment of a PhD project course.
- Lack of joint seminars (journal clubs and alike) and communication across divisions /departments.

Recommendations

- Facilitate seminars to increase networking and collaboration, possibly establishing a PhD network within the institute, where PhD students can determine the programme themselves with topics within career development, funding, etc.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- At the Department of Pharmacology there seems to be a high degree of co-worker involvement, functional collegial governance and good working environment.
- At the Department of Physiology: a high degree of shared lab spaces and equipment, and willingness to mutually help each other within (and across) divisions.

Weaknesses

- Fragmented structure and culture across the two departments with rather strict borders between fields, hindering interdisciplinary and translational mind-set.
- Lesser degree of contact across divisions within physiology.
- Introduction of new co-workers seems to rely on local initiatives (within the research group) and faculty (incl. e.g. the international office for foreign staff).

Recommendations

- If there is a consensus for promoting neuroscience, then establish regular seminars within neuroscience spanning topics from basic neuroscience to clinical neurology, psychiatry and rehabilitation.
- A formalised introduction to the institute/department, e.g. a regular 2–3 hours introduction seminar might increase coherence and networking across departments.

D2. Publication

D2.1 Publication strategy

Strengths

- State-of-the-art.

D2.2 Analysis of bibliometric data

Strengths

- Overall, the research profile seems to be strong with many good individual researchers/ research groups. Whereas some groups produce many publications with lower impact factors, others contribute with high impact factor publications. Mean normalised citations are as you would expect for very diverse and teaching-intense departments.

Weaknesses

- Very little information on research standing provided by the RED19 project team. Overall it looks fine, but bibliometric information was suboptimal: poor benchmarking, neither to correct research topics nor institutions, not corrected for number of researchers. We feel that for valid data, we would have to look up all groups ourselves.

Recommendations

(None.)

D3. Facilities and research infrastructure

Strengths

- Overall, laboratory equipment seems to be state-of-the-art.
- Efficient use of space.

Weaknesses

- Little flexibility with respect to recruitment of larger research groups.
- High costs related to animal facility (differently handled in the two departments).
- Vulnerable should problems in animal facility occur (e.g. infections as happened in the past, current constructions in neighbourhood).
- Capacity of animal core facility seems to have reached its limit.

Recommendations

(None.)

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- Awareness exists.

Weaknesses

- No focused activities.

Recommendations

- Consider working with gender-neutral language in job announcements to increase applications by underrepresented gender.

D4.2 Internationalisation

Strengths

- High degree of international staff at junior level.

Weaknesses

- Very low number of international staff at senior level.
- Few openings at senior level that could be interesting for foreigner researchers.
- Tight connection of recruitment and teaching renders international recruitment difficult.

Recommendations

- As in recruitment section

SECTION E – SUPPORT

E1. Internal research support

Strengths

- At the Department of Pharmacology: collegial agreements on sharing costs.

Weaknesses

- As far as we understand, there is little money available for internal research support.

Recommendations

(None.)

E2. Faculty and University-wide support

The panel has not separately addressed this question.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Physiology: Strengthened different divisions to some extent (e.g. higher activity in circulation, establishment of a centre for renal physiology, negotiations with faculty regarding metabolic physiology).

Pharmacology: active denial.

Generally, it looks like there has been little action on recommendations from RED10.

F2. Other matters

The panel has not separately addressed this question.

CONCLUDING RECOMMENDATIONS

Overall, the Departments of Physiology and Pharmacology are very good to excellent. However, they appear very fragmented. They have a rather traditional construction that focuses to a large extent on teaching and less on research, foremost with regard to recruitment. The areas are rather reflecting the teaching needs, not research opportunities.

The structure does not favour an interdisciplinary approach. The strict delegation of teaching budgets to the departments limits synergistic potential within both teaching and research. Put to the extreme in a hypothetical scenario, this could mean that clinicians would not be invited to teach in pharmacology or physiology (and vice versa) due to the fear of losing the income from teaching, hence affecting the quality of education.

- Take action to increase coherence within the institute, i.e. larger collaboration and less fragmentation across and within departments that will ultimately foster interdisciplinary research.
- Establish meaningful seminars to increase scientific coherence (seeing the joint opportunities instead of infighting regarding budgets).
- Revise traditional set-up and the focus of departments on teaching.
- Revise budget to allow for more open recruitments.
- Take initiatives to make career paths more transparent.
- Develop career coaching at all levels.
- Involve staff in developing functional descriptions of job categories to define expectations towards tenured staff with regards to research production, teaching, external funding, academic citizenship and dissemination.
- Work with culture around performance and development reviews (PDR) so they become meaningful tools for career development and coaching.

NEUROSCIENCE AND PHYSIOLOGY PANEL 2 – CLINICAL NEUROSCIENCE; PSYCHIATRY AND NEUROCHEMISTRY

860	Introductory Remarks
860	Section A – Background and Research Standing
860	A1. Background
861	A2. Research standing
862	Section B – Leadership
862	B1. Leadership
863	B2. Recruitment
864	B3. Career structure
865	B4. Funding
866	B5. Feedback and evaluation
866	Section C – Complete Academic Environment
866	C1. Collaboration
868	C2. Relevance and impact on society
869	C3. Research-teaching linkages
871	Section D – Academic Culture
871	D1. Academic culture
871	D2. Publication
872	D3. Facilities and research infrastructure
873	D4. Transverse perspectives
874	Section E – Support
874	E1. Internal research support
874	E2. Faculty and University-wide support
875	Section F – Other Matters
875	F1. RED10 evaluation
875	F2. Other matters
875	Concluding Recommendations

INTRODUCTORY REMARKS

The expert panel consisted of Leif Gjerstad, professor emeritus of neurology, Morten C. Moe, professor of ophthalmology and Lil Träskman-Bendz, professor emerita of psychiatry. During the month of January, we contacted each other via email and decided that Gjerstad and Moe would study the self-evaluation of Clinical Neuroscience while Träskman-Bendz would take care of the Psychiatry and Neurochemistry self-evaluation. We then moved onto looking at both departments within the Institute of Neuroscience and Physiology and decided to meet in Oslo on the 18th of February. The meeting ended with us wanting more data concerning departmental finances and on research groups concerning their production of papers and dissertations and patents and also their finances in short.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Clinical Neuroscience

- A strength of the organisation is that very competent researchers and clinicians are working together with both broad and highly-specialised patient populations. We are impressed by the broad research focus of the department. However, the multitude of different topics might present a challenge to maintaining a high level in all research.
- Administrative support regarding writing research applications (not EU) should be considered either at institute or department level.
- We support the idea of a highly-specialised centre for epilepsy. However, the financial situation is not yet settled when it comes to university positions.
- A better transparency of research projects and collaboration between researchers, both at the department and institute level, is recommended.
- A postdoc forum and even a PhD forum with heads present are recommended.
- The highly-specialised centre for epilepsy in the hospital setting should be utilised to develop a leading centre of epilepsy research at the University of Gothenburg (UGOT). However, the financial situation is not yet settled when it comes to university positions and administrative support for research within this centre.
- Moving translational ophthalmological research to Mölndal will increase translational integration with the clinics and make it easier to recruit clinical staff to research.
- It could be considered whether the department should be merged with psychiatry and neurochemistry to create a complete world-leading organisation in neuroscience.

Psychiatry and Neurochemistry

- Well-functioning organisation with strong collaboration between research groups (especially concerning registries and longitudinal studies of different populations followed by a broad panel of tests).
- Highly significant, numerous and important research output, especially related to dementia disorders, ageing, neurodevelopmental and bipolar disorders.
- Broad expertise of clinical trials in different fields of the department, ranging from anorexia-obesity research, suicide research, criminals, addiction research, bipolar disorders (lithium), ageing (young and old) to dementia.
- There is a direct access to patient cohorts for competitive clinical psychiatric research. Recently a new unit for studies of patients with anorexia and obesity has been established.
- The Centre for Psychiatry Research and Education is important from a national point of view, and included units also have an international outreach.
- This centre could be strengthened by further support from the faculty/institute.
- It is important to find support for a future and even stronger collaboration between the different centres of psychiatry, especially as their innovative research mostly concerns dimensions rather than categories.
- Even though AgeCap is involved in the SRC-sponsored National e-Infrastructures (NEAR), its important research merits more specific governmental funding.
- We suggest a future structure of professorships related to specific research fields rather than conventional ones, for instance creating professorships in dopaminergic systems and biomarkers in neuroscience.

A2. Research standing

Clinical Neuroscience

- The aim of RED19 is not to grade the research of different groups. In RED10 the different research environments received various grades, and our impression is that impact of the research performed still is variable within the department.
- We find it important to develop a uniform research strategy for the department for the next 5–10 years.
- We were very impressed by the high quality of the research by the department's postdocs who were interviewed. We recommend a further strengthening of support for these intermediate-stage researchers. A collaboration between them could further strengthen the research standing of the department.
- We support the ongoing action of having a full professor in neurosurgery to increase the research standing in this field.
- The MedTech West (MTW) platform is a great asset of the department and can be used to increase collaboration even further with other departments such as Psychiatry and Neurochemistry.

Psychiatry and Neurochemistry

- The department has strong research centre structures to continue being world-leading in the field, including neurochemistry and modern neuroimaging.
- The department aims to continue focusing on clinical research related to its expertise and cohorts, and aims to include novel aspects in epigenetics, deep sequencing, single-cell analysis of CSF cells and to further strengthen translational research.
- To merge psychiatry research/clinical psychiatric units is of outmost importance for future development.
- Future plans are relevant and convincing. However, to succeed in doing this, it will be important to focus on recruiting future leaders and to succeed in acquiring continued funding.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Clinical Neuroscience

Strengths

- We are satisfied to see that the leadership consists of researchers with different clinical backgrounds; one specialist in rehabilitations medicine, one recently recruited neurologist and one neurophysiologist. The leaders create a good working climate and offer regular meetings on different levels.

Weaknesses

- At the site visit, we got the impression that no user representative forum was involved in supporting strategic decisions by the department leadership.

Recommendations

- Establish close discussions with leaders of Psychiatry and Neurochemistry.
- If not present, consider a user representative panel for supporting strategic decisions and research focus.

Psychiatry and Neurochemistry

Strengths

- We are satisfied with the leadership, consisting of one man and one woman, both highly enthusiastic. In their strategic planning, they should have in mind that they are more or less from the same research environment. A “free” leadership style has so far been a successful approach, as reflected in the excellent publication rate, and the huge amount of increasing grants and international prizes won by researchers in the department.

Weaknesses

- The department is almost exclusively dependent on external grants.

Recommendations

- Clarify the role of the Centre for Psychiatry and define how funding by the department/ institute is allocated to the centre.

B1.2 Faculty/University level leadership

Clinical Neuroscience

Strengths

- Good support from the Dean, who is well acquainted with research matters in the department, is reported. There is also strong faculty support for med-tech collaboration on the MTW platform.

Weaknesses

- Room for improvement regarding administrative support.

Recommendations

- Administrative needs of the department must be met.

Psychiatry and Neurochemistry

Strengths

- The freedom of the research groups includes responsibility, which seems to work fine in relation to creating good and creative research environments.

Weaknesses

- The ability to make strategic decisions at the institute level is limited by the relatively restricted budget by distribution of most of the budget to the periphery.

Recommendations

- If possible: to put aside some strategic funding at the institute level from overhead money for strategic funding.

B2. Recruitment

Clinical Neuroscience

Strengths

- Good researchers/clinicians recently recruited.

Weaknesses

- There is no full professor of neurosurgery.
- Recruitment relies partly on external grants. Little seeding money/strategic

funding at the institute level makes it difficult for the institute to make strategic plans for the future.

Recommendations

- Important to have a strategy for further recruitment related to research standards with themes other than conventional clinical specialisations.
- Put away some of the overhead for seeding money/strategic funding?

Psychiatry and Neurochemistry

Strengths

- The larger research centres seem to have good resources for recruiting new researchers.

Weaknesses

- Limited financial resources on the department level for strategic strengthening of research.

Recommendations

- Strengthen the Centre for Psychiatry and support recruitment into the smaller research groups in the field of psychiatry.

B3. Career structure

Clinical Neuroscience

Strengths

- Postdocs have been recruited from other universities in order to strengthen innovative research within the department.

Weaknesses

- Lack of collaborative network between postdocs to support new and collaborative projects between the different research groups within the department.

Recommendations

- Stimulate own postdocs for visits abroad.
- Support contact between future research leaders, including talented postdocs. Also support them with administrative help for grant-writing and economy during the building of new groups.

Psychiatry and Neurochemistry

Strengths

- In general, we got the impression that the larger research groups/centres have been able to recruit many talented researchers at different career stages.

Weaknesses

- There is a gap in age between the leaders and future leaders in some of the research groups.

Recommendations

- Stimulate postdocs to go abroad.
- Secure the best senior researchers coming in with longer periods than two years.
- Help with housing for postdocs.

B4. Funding

Clinical Neuroscience

Strengths

- Research groups/centres within the department have been able to secure large external funding. Recent important funding (for ROP, the Sahlgrenska Centre for Paediatric Ophthalmology Research) was from the Wallenberg foundations.

Weaknesses

- A current difficult economic situation at the department level takes focus and possibilities away for further development and expansion.

Recommendations

- With help from the institute, clarify the financial situation and make a realistic economic plan for the coming years.

Psychiatry and Neurochemistry

Strengths

- The PIs of the department have been very successful in getting large external grants (national and international).

Weaknesses

- The Centre for Psychiatry as a structure does not have current centre-funding.
- We learned that this year one large private research funding will end at the Gillberg Neuropsychiatry Centre (GNC).

Recommendations

- Aim to secure specific governmental funding of AgeCap.
- Improve centre funding for the Centre for Psychiatry.
- Support the GNC in obtaining more regional (Västra Götaland) economic support.

B5. Feedback and evaluation

Clinical Neuroscience

Strengths

- When interviewed, the institute leaders gave the impression of being well acquainted with researchers and their projects in the department.

Weaknesses

- No regular follow-up regarding research projects between Heads of Department and research groups.

Recommendations

- Establish a postdoc forum and regular follow-up between Heads of Department and research groups.

Psychiatry and Neurochemistry

Strengths

- During the site visit, we got information about regular meetings between Heads of Department and research groups, and between Heads of Department and the institute.

Weaknesses

- Bi-annual follow-ups of projects mostly deal with economy.

Recommendations

- Important to discuss strategies for maintaining the high impact of current research in the future.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Clinical Neuroscience

Strengths

The department consists of strong centre structures collaborating within and outside Gothenburg, even internationally:

- MedTech West (R&D interaction with Chalmers University of Technology);
- Stroke Centre West/Stroke rehabilitation;
- Paediatric ophthalmology centre.

The department should aim to secure long-term funding and administrative support for these centres.

Weaknesses

- During the site visit we recognised several potential research collaboration areas, not yet recognised.

Recommendations

- Support the academic part of the clinical epilepsy centre.
- The research strategy of the department should play a more important role in the different centres, especially when related to MTW (Chalmers).
- Further increase neuroscience collaboration with Psychiatry and Neurochemistry.

Psychiatry and Neurochemistry

Strengths

- Most of the centres/groups have strong collaborative networks locally, nationally and internationally.

Weaknesses

- Some research groups have less collaboration on the institute level.

Recommendations

- The department needs to focus on internal collaboration in all the research groups.
- Improve collaborations between this department and the department of clinical neuroscience within the institute.

C1.2 Collaboration with external stakeholders

Clinical Neuroscience

Strengths

- There are several adjunct teachers supported by the SUH. Stroke and epilepsy researchers are scientific advisors for the National Board of Health and Welfare and one is also engaged as a WHO expert. Several researchers have participated in the development of national and international guidelines. There is much collaboration with patient organisations on different levels.
- There are ongoing pharmaceutical trials.

Weaknesses

- At present, limited EU-funded research within the department.

Recommendations

No further recommendations.

Psychiatry and Neurochemistry

Strengths

- There are several examples of successful collaborations outside the academy: the healthcare system, general society, the National Board of Health and Welfare, and the Ministry of Health and Social Affairs.

C2. Relevance and impact on society

C2.1 Management and support

Clinical Neuroscience

Strengths

- The research focus, as explained by the department leadership, is both highly relevant for society and for clinical care given in the hospital setting.

Weaknesses

- As pointed out earlier, administrative support could be strengthened especially for younger research talents/postdocs, and this responds also to relevance and impact on society.

Recommendations

- Spread knowledge about the university's Grants and Innovation Office.
- We suggest establishing a user panel at the department level that also could be utilised by younger research talents/postdocs to increase relevance and impact on society.

Psychiatry and Neurochemistry

Strengths

- The department is well acquainted with existing support routes for assessments of potential commercialisation and utilisation aspects within the university and Sahlgrenska University Hospital.

Weaknesses

- Not all units are familiar with UGOT or hospital support routes in UGOT.

Recommendations

- Within the department one could further improve the knowledge of excellence in grant-writing in all research groups.

C2.2 Research relevance and impact on society

Clinical Neuroscience

Strengths

- There is a relevance of ongoing research in this department, especially as neuro-disorders are common among elderly persons.

Weaknesses

- The standing of research on neurological illnesses *per se* (e.g. Parkinson's) were not dealt with in the self-evaluation and not mentioned during the interviews.

Recommendations

- Important to keep attention on ongoing strong studies of neuro-disorders, as they are common among elderly persons.
- Experimental Neuroscience in laboratories of the department is not necessarily of relevance for society and should be evaluated separately.

Psychiatry and Neurochemistry

Strengths

- Research activities are very relevant and have high impact on all levels of society.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Clinical Neuroscience

Strengths

- Clinical researchers all participate in teaching on the undergraduate and some on master's levels.

Weaknesses

- Heavy workload concerning education of several student categories – not only medical students.

Recommendations

- Important to sort out the amount of teaching obligations in relation to the need for research.
- We highly support the new orthoptics education, as this will also possibly increase research within this field.

Psychiatry and Neurochemistry

Strengths

- Employees at the department are leaders in their fields and are constantly

involved in educating the next generation of students with a multidisciplinary approach.

Weaknesses

- The smaller units e.g. in psychiatry have a heavy teaching load.

Recommendations

- Important to sort out the amount of teaching obligations in relation to the need for research.

C3.2 Doctoral education

Clinical Neuroscience

Strengths

- Fairly well-structured educational system in the academy. MD-PhD students are offered a clinical research school.

Weaknesses

- In recent years the department has organised few PhD courses. There is sparse financial support for PhD courses.
- Limited room for meetings between younger PhD students.

Recommendations

- Unify PhD education for students, regardless of their background and possibly across borders of neuroscience.
- We suggest a changed balance between the numbers of PhD students (fewer) and postdocs (more).

Psychiatry and Neurochemistry

Strengths

- Innovative approaches for research education e.g. the AgeCap greenhouse and the Psychiatry Research School, which are open to PhD students in laboratories and clinics. There is a well-developed summer research training course in some of the groups.

Weaknesses

- Dispersed location of some of the psychiatry research groups/PhDs may weaken supervision and interaction between the students.

Recommendations

- Replacing PhD students with postdocs may strengthen the recruitment of future leaders.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Clinical Neuroscience

Strengths

- The department has been able to recruit excellent postdocs from outside (e.g. KI, Finland, Norway, Estonia, the US). There is one visiting professor in the newly-founded Centre for Spinal Cord Injuries and yet another in rehabilitation research.

Weaknesses

- No common strategy for the department.

Recommendations

- The leaders of the department should regularly meet the PhD students and postdocs to discuss, among other things, how to improve the academic culture.

Psychiatry and Neurochemistry

Strengths

- Excellent scientific results linked with good academic culture. Journal clubs and get-together infrastructure in the larger research groups. There are several international visiting professors in this department.

Weaknesses

- Some of the research groups in psychiatry are small and dispersed, also in relation to clinical activity.

Recommendations

- Support the development of the same kind of academic culture also within the smaller research units of the department. Find a strategy for developing cooperation between more of the research units.

D2. Publication

D2.1 Publication strategy

Clinical Neuroscience

Strengths

- The strategy is to strive for publications in high-impact journals and journals read by relevant scientists/clinicians, and to aim for open access.

Psychiatry and Neurochemistry

Strengths

- Excellent publication strategy and output in most of the groups. Open access publications are preferred.

Weaknesses

- In order to finalise PhD theses, it might be difficult to aim for the highest-impact journals.

D2.2 Analysis of bibliometric data

Clinical Neuroscience

Strengths

- Ophthalmology (the ROP centre), Stroke (rehabilitation) and Neurophysiology present a large number of refereed publications and citations together with other research groups. A couple of postdocs also present good bibliometric data.

Weaknesses

- There are several small clinical and preclinical research groups within the department, which have comparatively smaller numbers of publications and citations. One reason could be small cohorts for publications aimed at PhD theses.

Recommendations

- Close collaboration between research groups and labs within and outside the department is recommended. Stronger access to national and quality registries is warranted.

Psychiatry and Neurochemistry

Strengths

- Uniquely productive researchers and several known researchers (PIs) are extremely highly cited.

D3. Facilities and research infrastructure

Clinical Neuroscience

Strengths

A broad range of research groups and infrastructure with relatively new technology platforms in many groups.

Weaknesses

- As the research centres at the department are mainly virtual (not located within the same building), there is a risk of missing everyday collaborative ideas and synergism.

- Ophthalmology labs and clinical research sites are separated.
- There is also a problem concerning the building (house) of rehab research.
- Furthermore, most of the research equipment is bought/supported by research grants.
- There is little/no collaboration between the laboratories for basic neuroscience and the other groups at the department. Should these laboratories be part of Physiology?

Recommendations

- Develop meeting points, both scientific and social, continuously for different groups and research centres.
- Merge ophthalmology clinic and laboratories.

Psychiatry and Neurochemistry

Strengths

- Most of the big research groups have very good facilities and research infrastructure.

Weaknesses

- Smaller research units, especially in the field of psychiatry, need to have better research infrastructure/facilities.

Recommendations

- Evaluate and strengthen the Centre of Psychiatry. Support the wish of researchers to merge clinical facilities.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Clinical Neuroscience – Gender equality is fine.

Psychiatry and Neurochemistry – Good gender balance.

D4.2 Internationalisation

Strengths

Clinical Neuroscience – There are both incoming PhD students and visiting researchers from different countries and also some recruited staff at different levels including postdoc-researchers/professors.

Psychiatry and Neurochemistry – Wide collaborations internationally within the entire department, especially concerning Neurochemistry and GNC (professorships), but also among psychiatry sub-specialities.

SECTION E – SUPPORT

E1. Internal research support

Strengths

Clinical Neuroscience – Economists are to a large extent helpful with budgeting.

Psychiatry and Neurochemistry – The department is highly dependent on the successful attraction of external grants.

Weaknesses

Clinical Neuroscience – There is very little internal administrative research support. Problematic economic matters might have hidden the need for other administrative support.

Recommendations

Clinical Neuroscience – Improve administrative support for grant-writing, especially for postdocs. Better information on existing UGOT support structures is needed.

Psychiatry and Neurochemistry – Support smaller units with collaborative projects and grant-writing.

E2. Faculty and University-wide support

Strengths

When relevant, support from HR, administration, core facilities and the university's Grants and Innovation Office was reported.

Weaknesses

The support services are not always used or even known among all research facilities in the department. The difficult economic situation of the department (Clinical Neuroscience) has not been given enough attention.

Recommendations

Clinical Neuroscience – As the Dean is well-aware of the department's difficult economic situation, the contact between them should deal with solving it.

Psychiatry and Neurochemistry – These support services need to be known about and used across the entire department.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

Clinical Neuroscience – We got the impression that the RED10 evaluation had only to some extent been used to improve and change the department. However, many of the key points had been improved over the years between RED10 and RED19.

Psychiatry and Neurochemistry

The research groups are well aware of the results of the RED10 evaluation, which were briefly discussed during the interviews.

In some of the research centres/units, recommendations like the exchange of PhD students for postdocs have not been successful

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

Clinical Neuroscience

- We find it important to develop a uniform research strategy for the department for the next 5–10 years, including a discussion on how many research activities there should be in this department.
- Moving translational ophthalmological/cell culture research to Mölndal will increase translational integration with the clinics and make it easier to recruit clinical staff for research.
- The specialised centre for epilepsy in the hospital setting should be utilised to develop a leading centre of epilepsy at UGOT. However, the financial situation is not yet settled when it comes to university positions and administrative support within this centre.
- We were very impressed by the high quality of research by postdocs in the department. A further strengthening of support for these intermediate-stage researchers and collaboration between them could further strengthen the research standing of the department.
- We support the ongoing action of having a full professor in neurosurgery, or alternatively, an adjunct professor connected with SUH.
- The economic situation within the department needs to be settled with a future realistic plan.
- It could be considered whether the department should be merged with the department of Psychiatry and Neurochemistry to create a complete and world-leading organisation in neuroscience!

Psychiatry and Neurochemistry

- We are satisfied with the leadership.
- Well-functioning organisation with highly significant, numerous and important international research outputs.
- Broad expertise in the field of clinical trials in different parts of the department.
- The importance of the AgeCap research justifies specific governmental funding.
- The Centre for Psychiatry and education is important for collaboration between psychiatry research units. It should be possible to put aside some strategic funding for this centre on the faculty/institute level.
- We suggest a future structure of professorships related to specific research fields rather than patient categories.
- The department aims to continue focusing on clinical research related to their expertise, but aims to include novel aspects and further strengthen collaboration with translational research, which seems to be a sound strategy.
- Future plans are relevant and convincing. However, to succeed in doing this it will be important to focus on recruiting future leaders and to succeed in acquiring continued funding.
- The main research groups seem to have good resources for recruiting new researchers.
- During the site visit, we got information about regular meetings between Heads of Department and research groups, and between Heads of Department and the institute.
- The department needs to focus on collaboration in all research groups locally, nationally and internationally.
- A development of the same kind of academic culture and infrastructure, also within the smaller research groups of the department, must be supported.
- It could be considered whether the institute should merge, or significantly strengthen an interaction between the Department of Clinical Neuroscience and the Department of Psychiatry and Neurochemistry to create a complete world-leading organisation in neuroscience!

NEUROSCIENCE AND PHYSIOLOGY PANEL 3 – HEALTH AND REHABILITATION

878	Introductory Remarks
878	Section A – Background and Research Standing
878	A1. Background
878	A2. Research standing
879	Section B – Leadership
879	B1. Leadership
880	B2. Recruitment
880	B3. Career structure
881	B4. Funding
881	B5. Feedback and evaluation
882	Section C – Complete Academic Environment
882	C1. Collaboration
882	C2. Relevance and impact on society
883	C3. Research-teaching linkages
884	Section D – Academic Culture
884	D1. Academic culture
884	D2. Publication
885	D3. Facilities and research infrastructure
885	D4. Transverse perspectives
886	Section E – Support
886	E1. Internal research support
886	E2. Faculty and University-wide support
887	Section F – Other Matters
887	F1. RED10 evaluation
887	F2. Other matters
887	Concluding Recommendations

INTRODUCTORY REMARKS

The expert panel together with the department planned the site visit, programme and interviews. The panel divided the four units so that two of the panel members together evaluated two units (Audiology, AU, and Speech and Language Pathology, SLP) and one panel member evaluated the other two units (Occupational Therapy, OT, and Physiotherapy, PT). The panel had an extensive and detailed schedule allowing interviews and meetings with all types of staff, from undergraduate students to leadership (including institute leadership). Together, the panel observed and discussed their findings, and the evaluation and analysis are based on a consensus between the panel members. For the Concluding Recommendations, we formulated a set of eight bullet points that would be useful for the department for future development of high-quality research and research environments, and at the same time understandable, concrete and contextually appropriate. These recommendations, together with the observations and analysis (section A–F), were shared with the leadership at the closing meeting on day two of the site visit.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The department is relatively new and the four units, with different backgrounds, came together in 2014. With regard to research, it is carried out through established research groups as well as by single researchers. Research, including joint positions and PhD students, is linked to different levels within the medical service (regional medical and healthcare, primary care, municipal care and social service), and to different research centres. Research is also population- and workplace-based, in collaboration with different organisations and public authorities in society. Teaching is a major part of the department's assignment and takes up quite a large section of the leadership commitment, as well as a large proportion of the workload at all levels of staffing.

Even though the department comprises four different units that are rooted in specific healthcare professions, they have found a pragmatic balance of governance that ensures stability in the day-to-day running of the department. In addition, and perhaps more importantly, there is a clear, shared agenda, namely human health, disease and its prevention, and human participation in society, across the life-span. It would therefore strengthen the department's role and responsibilities, and identity, in a wider sense if it can present its research agenda in a more cohesive and unified fashion.

A2. Research standing

Despite being a fairly new department, research in the four units has been ongoing for quite some time, for three units several decades (OT, PT, SLP) whereas one (AU) has only existed for less than a decade. As a department, research is highly

relevant with a strong clinical orientation. There is within the department a solid scientific foundation, with clear visions and high productivity. For a department of this size, research output and quality are clearly above average. They produce annually a large number of high-quality publications in their respective fields and have a high number of graduated PhD students, many of whom are from the healthcare sector (so-called ‘industry students’).

Collaboration with outside external funding agencies is strong, which leads to many PhD students graduating and then going back to their clinical positions. There is, however, a lack of intermediate research positions for younger researchers, which is a threat to long-term continuity and sustainability within the department. Therefore, there is a need for solid long-term financial support to bridge the retirement of senior researchers.

There is a realistic balance between ongoing projects, which are a majority of the work, and the proposed new ones. However, the gradual growth of the department depends heavily on external funding, for younger researchers as well as new PhD students. Several senior researchers will approach retirement over the next decade, and solid long-term funding to secure succession is vital to the department, both with regard to research, but also to guarantee continuity in teaching.

Aspirations presented are linked to separate units. As previously stated, the department would benefit from cultivating a more cohesive, overarching identity. This could include developing a common strategy based on the similarities; e.g., ageing as part of all units’ programmes, children also, as well as adults in working life, and women. If the department can develop such a long-term cohesive identity, it is likely that it will be more successful in securing funding for staff to balance research and teaching.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- There is strong representation of each unit in the management, and a balance between experience and new visions. There is a strong identity within each unit.

Weaknesses

- As it is a fairly new department, it still needs time to develop all aspects of its new leadership. The physical organisation and resulting logistics somewhat impede ease of communication and the growth of cohesion, as the units are spread over several separate buildings.

Recommendations

- It is recommended that there is expanded time for leadership to develop strategies and consolidate the department's role within the institute and outside. This could be done by increasing the time allocated for departmental management from 20% to 40% of a full-time position for a period of 2–3 years.

B1.2 Faculty/University level leadership

Strengths

- There are clear visions, solutions and wish lists, a reasonable view of their strengths and weaknesses, and time set aside to run the institute.

Weaknesses

- The broad range of areas, subjects, and traditions gives an inherent limitation for more strategic decisions.

Recommendations

- It is recommended that communication between the department and institute be strengthened to ensure a constructive and productive dialogue so that the Heads of Department can obtain support for strategic decisions.

B2. Recruitment

Strengths

- There appears to be a clear process for recruitment, in particular for temporary staff. There seems also to be availability of persons to deliver basic teaching, which ensures time off from teaching assignments for permanent staff who have secured external funding.

Weaknesses

- In the long term, a threat to the department is the availability of vacant positions and academically qualified staff.

Recommendations

- There is a need for a long-term strategy so that the department is less vulnerable in terms of maintaining high-quality research and programme delivery. This will ensure that it can accommodate grants (which involves needing to free staff from parts of their teaching duties) and thereby secure mid-term sustainability.

B3. Career structure

Strengths

- A strength of the department is that they produce many PhD graduates. There is also a clear path from undergraduate to postgraduate positions.

Weaknesses

- There is a lack of intermediate postdoc positions. There is also a need for a plan to accommodate senior scientists who retire. Diversity of staff with regard to gender, ethnicity etc. has been emphasised by the department in their self-evaluation.

Recommendations

- A recommendation for the department is to develop a common strategy for mentorship for PhDs within the department, as well as those from outside who graduate within the department. This should also include postdocs. For the faculty and university, a recommendation is to develop strategic support earmarked for health and rehabilitation to allow for intermediate positions as well as succession for senior staff retirement.

B4. Funding

Strengths

- The department has been successful receiving grants nationally.

Weaknesses

- Often funding is not long-term (beyond three years), and there is limited stable faculty support.

Recommendations

- A recommendation is to develop a strategy from the university/faculty to allow for fluctuations in funding, also to ensure specific university/faculty funding for health and rehabilitation, and to increase funding for research time for junior researchers through strategic temporary positions.

B5. Feedback and evaluation

Strengths

- Individual research groups have been successful in their self-evaluation.

Weaknesses

- There is seemingly no systematic internal research evaluation at department level.

Recommendations

- A recommendation is to develop a strategy for annual feedback and performance improvement regarding research projects, and develop that as part of PhD mentorship.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The department has strong and successful collaboration both in Gothenburg and nationally.

Weaknesses

- There is room to expand collaboration internationally. However, too much external collaboration may be a barrier to further development of the department's identity, as the work involved may result in more recognition for the external partners (for instance, established research centres at the University of Gothenburg outside of Health and Rehabilitation) than for the department.

Recommendations

- Formulate a strategy to ensure that external collaboration receives due recognition for the work done within the department. Also, it would be advisable to develop international collaborations that could be used as part of the department's medium-term development.

C1.2 Collaboration with external stakeholders

Strengths

- There is strong and successful collaboration with external stakeholders in Gothenburg and nationally. This has been a very important part of the development of the younger units.

Weaknesses

- The collaboration with external stakeholders may not be long-term enough for stable development.

Recommendations

- A recommendation is to broaden collaboration with health authorities to create and implement a long-term research agenda. This could ensure long-term funding and also position the department as the main provider of well-educated future academic leaders.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- The department has been successful in attracting PhD students from healthcare that work in clinically relevant areas.

Weaknesses

- There is limited evidence of a departmentally coordinated research agenda for long-term impact on society.

Recommendations

- A recommendation is to broaden collaboration with health authorities and other institutions to create and implement a long-term research agenda at the department level that impacts society. This could ensure long-term funding and also position the department as the main provider of well-educated future academic leaders.

C2.2 Research relevance and impact on society

Strengths

- All four units make a significant contribution to the evidence base in their respective disciplines.

Weaknesses

- The four units have not been visible enough with regard to the department's impact on university and society.

Recommendations

- It is recommended that the department identify and promote its role and responsibilities to impact university and society. This can be done with support from the communication and PR unit within the faculty/university.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Each degree programme has strong links to research. Most teachers are involved in research, which enhances research-led teaching.

Weaknesses

- The department does not have resources for research-led teaching in all areas of the different programmes' scopes of practice. There is no clear structure for master's students' progression through their education.

Recommendations

- It is recommended that the department formulate a strategy for research-led teaching in all areas of the programmes' scopes of practice, and create a coordinated inclusive academic environment and network for all master's students (internal and external).

C3.2 Doctoral education

Strengths

- There is a clear strategy to promote doctoral education and a clear plan for supervision. There is also a strong research base in all four units which stimulates new PhDs, and strong collaboration within the university (i.e. different centres) which secures funding.

Weaknesses

- There is very limited faculty support for PhD programmes and therefore the department relies almost entirely on external funding. There is a partial lack of coordination from the department regarding the many external PhD students, to enable them to feel more included in the department's overall identity.

Recommendations

- It is recommended that the department create a coordinated inclusive academic environment and network for all PhD students (internal and external). This can be a small, but specific, assignment for junior scientists, which would also be part of their academic leadership training.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- There is a strong research base in all four units that stimulates a visionary culture.

Weaknesses

- There is a lack of departmental resources for academic growth for junior scientists.

Recommendations

- It is recommended that the department expand the formal academic mentorship of junior researchers. Also, it is strongly recommended that the faculty/university increase resources to allow for expanded research time for permanent staff.

D2. Publication

D2.1 Publication strategy

Strengths

- There is a clear and concise publication strategy, which is in line with the university strategy.

Weaknesses

- We could not identify any weaknesses in the publication strategy.

Recommendations

- It is recommended that the department continue to publish along their publication strategy.

D2.2 Analysis of bibliometric data

Strengths

- There has been continuous growth in all four units with regard to the number of publications over the past five years, well in line with the department strategy.

Weaknesses

- We could not identify any weaknesses in the bibliometric data.

Recommendations

- It is recommended that the department continue to publish along their publication strategy.

D3. Facilities and research infrastructure

Strengths

- Facilities and research infrastructure related to office space, IT etc., appear to be sufficient at parts of the department. AU and SLT have a lack of office space and the staff share offices and sometimes desks as well.

Weaknesses

- There is no immediate departmental infrastructure regarding statistics support, health economics and other areas that may strengthen the four units' research. Support for audiology equipment relies heavily on external stakeholders.

Recommendations

- It is recommended that the department formulate a strategy to support stability and growth of infrastructure, equipment and internal and external funding.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- There are strong possibilities for clinically-active professionals to enter research education and master's or PhD programmes.

Weaknesses

- There is an inherent gender imbalance, which is not unique to this department,

and also found in similar departments in other universities, both nationally and internationally.

Recommendations

- It is recommended that the department continue to foster equal opportunities and diversity.

D4.2 Internationalisation

Strengths

- There is good interaction with international colleagues that provide collegial input at all levels.

Weaknesses

- There is room to develop formal international research collaboration, which could be part of the department's growth and development for junior staff.

Recommendations

- It is recommended that the department develop a programme and implement procedures that facilitate international exchange and collaboration.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- There is strong support in all four units from area representatives.

Weaknesses

- There is no clear articulation of a department-wide structure related to internal research support.

Recommendations

- It is recommended that the department, based on a shared vision, mission and values statement, strategically employ internal resources to strengthen internal research support.

E2. Faculty and University-wide support

Strengths

- There is strong support from the university with regard to, for example, its Grants and Innovation Office and the university library.

Weaknesses

- There is a lack of faculty funding for stable internal research support.

Recommendations

- It is recommended that the department work towards increased faculty/university funding for stable research support.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The RED10 evaluation was difficult to apply to the current department structure. For the separate units, there has been continuous work to expand in terms of all aspects of an academic department.

F2. Other matters

[No other matters to comment on.]

CONCLUDING RECOMMENDATIONS

Based on our overall observations and analysis we provide the following recommendations to the department, faculty and university for the department's future development of high-quality research and research environment:

- Formulate a shared vision, mission and values statement to strengthen the identity as a unified academic department;
- Identify and promote its role and responsibilities to produce future academic health profession leaders;
- Broaden collaboration with health authorities to create and implement a long-term research agenda;
- Allocate faculty financial support to realise the department's development of its identity and academic role in society;
- Increase faculty resources to allow for expanded research time for permanent staff;
- Create a coordinated inclusive academic environment and network for all master's and PhD students (internal and external);
- Expand formal academic mentorship of junior researchers;
- Encourage the faculty to allocate resources to secure medium-term sustainability and succession planning.

INSTITUTE OF ODONTOLOGY

890	Introductory Remarks
890	Section A – Background and Research Standing
890	A1. Background
894	A2. Research standing
896	Section B – Leadership
896	B1. Leadership
897	B2. Recruitment
898	B3. Career structure
898	B4. Funding
899	B5. Feedback and evaluation
900	Section C – Complete Academic Environment
900	C1. Collaboration
901	C2. Relevance and impact on society
902	C3. Research-teaching linkages
903	Section D – Academic Culture
903	D1. Academic culture
903	D2. Publication
904	D3. Facilities and research infrastructure
905	D4. Transverse perspectives
906	Section E – Support
906	E1. Internal research support
906	E2. Faculty and University-wide support
906	Section F – Other Matters
906	F1. RED10 evaluation
907	F2. Other matters
908	Concluding Recommendations

INTRODUCTORY REMARKS

Panellists: Dag Ørstavik, Pekka Vallittu, Vibeke Baelum (chair)

The observations made in the following are based on the background information provided to the panel by the RED19 project group as available on the RED19 website. In addition to this, information has also been obtained from the Institute of Odontology (IO) website, including <https://odontology.gu.se/forskning/Forskare>. Based on this material, each panel member has independently filled a panel report template. The questions emerging from studying the background material were used to determine the contents of the site visit to the Institute of Odontology, which took place on 2nd–3rd April 2019. Here, the panel met with the IO management (*Prefekt, propprefekt*, as well as the former *prefekt*); the heads of sections; several discipline heads; representatives of the research and researcher education committee, the dental hygienist education, and the dental technician education; persons in charge of the PDS student clinics, and the PDS research coordinating officers. The panel also had a tour of the facilities for clinical research.

The present account represents the joint and unified observations of the panel. We have noted that departments have been *'encouraged to be open, and to address both their strengths and weaknesses'*, and that the panel should *'reflect on the department's capacity for critical self-reflection, including the ability to bring deficiencies to the surface'*. Moreover, the panel was asked to *'assess the department's readiness to deal with perceived weaknesses'*. In this context, it should be noted that two of the three panel members also participated in the RED10 evaluation of the Department of Odontology.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Institute of Odontology (IO) considers the existing 13 disciplines/clinical specialties to be the main 'building blocks' of the institute. The total staffing comprises 32.6 senior level FTEs plus 4.8 researcher/postdoc FTEs, 15 PhD FTEs, 8.4 lecturer FTEs (employed for undergraduate and special education) and 1.8 externally funded FTEs.

A discipline is typically led by a professor or a senior lecturer, and is additionally staffed by a senior lecturer and a part-time secretary. In two disciplines the total research FTE (including doctoral students) approaches 9 FTEs, whereas many other disciplines are down to just one or two FTEs.

A considerable number of PhD students (44 in total) are registered as doctoral students with IO, but have their employment elsewhere (typically with the Public Dental Service), and are doing their PhD part-time, extending study time from the

stipulated four years full-time to eight years part-time.

The number of staff members has been constant in 2013–2017, but there is a considerable shortage of postdoc positions despite a considerable number of doctoral students per year. Thus, the availability of these positions is not in balance. The ratio of professors to other academic staff follows the current trend in the Nordic countries.

The existing 13 disciplines represent the traditional curriculum-based compartmentalisation of educational needs into clinical/technical subspecialties, such as Cariology, Periodontology, Endodontics, Oral and Maxillofacial Surgery, Prosthodontics and Dental Materials Sciences, Orthodontics, Paediatric Dentistry, Orofacial Pain, Oral Medicine & Pathology, Oral and Maxillofacial Radiology, Behavioural and Community Dentistry, just as a few basic science disciplines (Oral Microbiology & Immunology, Oral Biochemistry) have been retained.

The institute considers research and education as integrated activities and sees this integration as a prerequisite for high-quality research. Although the institute is relatively large in a Scandinavian perspective, the research conducted within the specialty equivalents (disciplines) may narrow the understanding and development of multidisciplinary research, just as competitiveness may be compromised. Moreover, while 13 disciplines may be adequate for educational purposes, research groups comprising 1–4 researchers are too small in size for the international level of research, where considerations regarding ‘critical mass’ and opportunities for cross-fertilisation would be more important. Discipline boundaries are only infrequently overstepped and only 20% of IO publications in the period 2013–2017 had co-authors from different disciplines within the institute. Also, internationally co-authored publications seemed not to be highly favoured.

The institute seems aware of some of these issues, as it is stated that “*It is possible that reorientation and strengthening of the sections would provide conditions for better control of the IO’s research activities*”. However, the institute does not seem to really believe in the possibility of such changes: “*Over the years, attempts have been made to form stronger research groups, by joining closely related disciplines, so as to increase the critical mass of each research area. However, the IO feels that all disciplines, where the majority represent clinical areas within the field of odontology, are important from both the research and education perspectives*”. This might indicate that smaller, less effective units fear being engulfed by the larger and more successful groups, and/or that the successful groups do not make themselves sufficiently attractive to others.

The institute is trying to foster more collaborative science across disciplines by concentrating the research infrastructure. This would indeed seem a feasible approach, particularly if it could be accompanied by a physical reorganisation of the staff and equipment within the IO premises. The ‘*Odontologen*’ building is very large and researchers are dispersed within the building to the extent that they rarely

have a chance to meet. The majority of the academic staff met during the site visit stressed the need to be physically brought together to increase the possibilities for informal meetings between colleagues. Joint core research facilities, joint lunch rooms and coffee machines could thus be instrumental in bringing researchers together in an informal and therefore non-threatening way to promote research cross-fertilisation and collaboration.

The expected change in research staff due to retirements of senior researchers may present a natural opportunity to reorganise and strengthen research environments by these informal means.

Currently, the institute hosts no faculty or university research centres or infrastructures, and existing IO research facilities are rather scattered across disciplines; facilities hosted by one discipline are not clearly accessible to researchers outside this discipline. This absence of sharing research infrastructures (core facilities/joint research facility platforms) will most likely cause problems for the long-term development of specific methodologies and expertise of research areas, which currently have chiefly dental objectives. On the other hand, research areas closer to medicine and biomedicine may benefit from being not too strongly linked only to IO research laboratories. Even so, interdisciplinary research with medical, biological and technical research groups and institutions is not prominent.

From an outside perspective, it appears self-evident that a strengthening and concentration of research environments is necessary, and that the creation of a common platform for research facilities could be instrumental for the definition of overriding and clinically and biologically interesting/relevant areas/topics of research that could lead to more effective research strategies, improve the overall research quality and give an even stronger basis for external grant applications to major funders, such as the Swedish Research Council (VR), EU or the US National Institutes of Health (NIH). A common platform for research facilities would also enhance and promote research cross-fertilisation and collaboration of researchers at different career levels. Such a reorganisation would require a significant change in the strategic efforts of IO leadership. Major and less active players in IO research must see the need for this change and the opportunities it provides. All parties involved may have to accept a short-term reduction in productivity, especially the established grant acquirers. The latter could, however, see their role as future coordinators/leaders in a larger and more renowned research centre.

The 13 constituting disciplines are organised in three sections, each comprising 3–6 disciplines. Each section is led by a section-head, whose mandate towards the constituting disciplines is chiefly administrative/managerial. This is at variance with the impression held by the panel until the site visit that section heads would also exert some form of research leadership. The actual grouping of disciplines into sections has chiefly been dictated by their in-house physical location, as the disciplines constituting a section are located in vicinity of each other, making possible the sharing of administrative resources such as secretaries. Section heads are

appointed by the IO *prefekt* (Head of Institute/Department), together with the IO *proprefekt* (Assistant Head). The *prefekt*, *proprefekt*, and the three section heads form the Institutional Management Team, making an IO management group of only five persons.

The *prefekt* and *proprefekt* are appointed as a team on the basis of support from the academic staff, and their role is chiefly one of taking care of administrative and managerial issues, rather than exerting research leadership. The directors are supported by an external Advisory Board acting as a support for decision-making and by a Committee for Research and Research Education, whose roles seem chiefly advisory. There is currently no joint IO vision and strategy for research carried out in the institute, and it is entirely up to disciplines/research groups to follow their individual research interests, and ‘make it on their own’. Some research support facilities exist at the faculty level (Sahlgrenska Academy), but these might be strengthened through professional fundraising/grant-writing support.

The institute collaborates with the Public Dental Service (PDS) through the TUA agreement (*tandläkarutbildningsavtal*), which governs both undergraduate dental education and support for clinical research. A joint PDS/IO board exists – the Odont-Sam – which handles cooperation issues relating to this agreement. TUA has existed since 1989 and applies to the odontological institutions in Gothenburg and Umeå, but not in Stockholm or Malmö, and this may preclude collaborations with the latter institutions. The TUA agreement has led to a reduction of staff in each IO discipline from typically more than 20 to fewer than five persons, as the undergraduate clinical education is handled by the PDS.

The TUA agreement dictates that IO researchers holding combined positions (which applies to most academic IO staff) must spend 25% of their time working with PDS patients. This clearly reduces the time to run high-level research for the academic staff. It is difficult to see the rationale for the agreement of 25% patient work inside an agreement of education and research funding. It seems that the IO/university obtains TUA funds for research at the expense of giving off 25% of their researchers’ time. In the self-evaluation, the institute suggests that this time would be better spent carrying out developmental or clinical research projects or health technology assessments. The panel would agree with this proposition and finds that the TUA rule of 25% clinical work by researchers represents an untoward use of the special expertise held by IO researchers.

The IO self-evaluation expresses the view that it is difficult to engage the PDS in clinical research activities, owing to a lack of competence on the part of the PDS and economic governance being stringently applied by the PDS. However, it is the panel’s impression that such constraints do not apply; instead, there seems to be a limit to the number of clinical research projects that can be run simultaneously within the PDS. The view was also expressed that IO researchers planning a clinical research project would benefit from planning in collaboration with the PDS, just as some ‘marketing’ of the project towards the PDS clinics involved might be beneficial.

The teaching load of IO academic staff is quite considerable owing to the twice-yearly intake of dental students. It would seem a matter chiefly of reorganisation to make an annual intake fit with the premises for teaching within the institute, and thus somewhat reduce the teaching load.

The institutional management (*prefekt, proprefekt* and section heads) have considerable administrative duties, whereas the administrative chores are less pronounced among the academic rank and file, and the administration of the institute would seem pleasantly slim. Overall, it is stipulated that the average IO researcher would spend about 30% of their time doing research, which, however, is no guarantee for a competitive level of research.

A2. Research standing

The overall IO view is that the institute is the sum of its constituent parts (disciplines). This points to a relatively weak institute management *vis-à-vis* the constituting disciplines, and it is therefore not surprising that research strategies and plans for the future at the institute level are few and sketchy. It is quite clear that initiatives for new interdisciplinary collaborations chiefly come from the research groups/disciplines, and are not part of an overriding strategy at the level of the institute. While this ‘budding’ strategy ensures a large degree of freedom in the choice of research topics and methods within each discipline, it also underpins the continued fragmentation of research, a problem that was also pointed out in RED10.

One institute-level initiative mentioned is the creation of a new research environment in information technology. This initiative has been made possible owing to a grant from industry, and carries certain provisions regarding the mutual benefits to academy and to the healthcare sector and industry. The creation of a novel research field in IT is a positive development, although the impact of such may take years to materialise. The adaptation of this new initiative should be carefully considered in the framework of attempts to create larger research groups and environments. It would thus be unfortunate if this new research area (IT) would form yet another small discipline paralleling the existing 13 disciplines. The IO self-evaluation also mentions “*new initiatives from the research groups are new interdisciplinary collaborations, analysis of registry-based data, and investigations of the link between oral and general health/diseases*”. These seem additional good examples of how overriding research strategies could help define and support research that could fall into the categories of most, if not all disciplines.

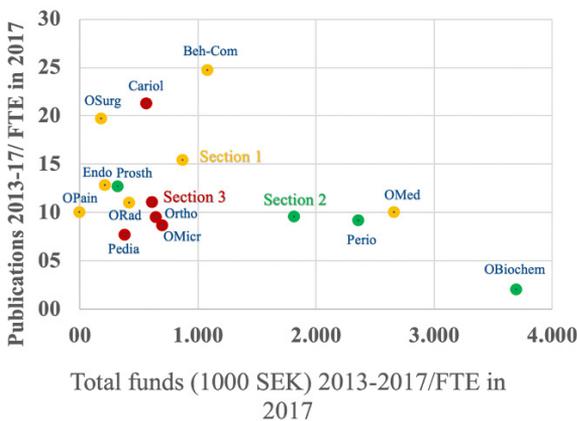
Overall, the research standing of the institute would appear quite strong relative to that of comparable institutions. The institute ranks very high on the Shanghai ranking list, being no. 1 in a Scandinavian perspective, and no. 21 in a global perspective in the year 2018, which indicates a high degree of international visibility. This could be seen a strong point, and it may be appropriate to be somewhat humble in proposing major changes to an institution that has been so successful in its research activities. However, it is also noteworthy that the high degree of

international visibility has not translated into more international collaboration and – not least – international researcher exchanges and recruitments.

Over the period 2013–2017, the annual research income of the institute has amounted to an average of SEK 56 million, with an average of SEK 33m retrieved in the form of block grants, and an average of SEK 13.6m in the form of external grants. This external contribution is split almost equally between funds granted on the basis of external competition or through commissioned projects (annual average of SEK 5.8m), and grants won in internal competition through the TUA funds available only to IO employees (annual average of SEK 6m). Overhead percentage of 35 % is acceptable to attract starting externally-funded projects.

Statistics relating to the ability to attract external research funds, the ability to acquire internal funds, and publication rates may be used to characterise the research productivity of the disciplines. It is clear from the data provided in the self-evaluation that ‘success breeds success’ and the ability to attract external research funds goes hand in hand with the acquisition of internal TUA grants. The figure below shows, for each discipline, the relationship between the number of publications (2013–2017) per FTE (2017) and the research funding attracted (2013–2017) per FTE (2017).

In terms of the ability to attract research funds, three disciplines stand out, and among these, Oral Biochemistry seems in its own league, followed by Oral Medicine and Pathology, and Periodontology.



In three disciplines, the publication rates (number of publications 2013–17/FTE (2017)) appear particularly high considering the amount of funds available (Behavioural and Community Dentistry, Cariology, Oral and Maxillofacial Surgery).

While the success of individuals/disciplines is an example of how personal engagement is decisive for research advances, the impact/influence of overriding research

strategies is not apparent from the self-evaluation. The self-evaluation leaves the impression that monetary success is a primary indicator. This entails the danger that funding to individual researchers is credited to their discipline, which may be good for the short term, but not necessarily in the longer perspective. This risk is particularly relevant for manufacturer-supported research, where money may be readily available for research that may have little lasting interest.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The chiefly ‘managerial’ role of the department leadership means that research groups have a very high degree of freedom in their choice of research topics and methods.

Weaknesses

- Department leadership appears weak in relation to the research disciplines and is somewhat estranged from the research groups, leading disciplines to act rather independently.
- Role of the Advisory Board, Directors of the Institute and Professors in the leadership is unclear.
- Teaching and clinical duty workload limits the time available for research. IO staff members are distributed to different wings and floors of the building, which makes leading the institute challenging.

Recommendations

- Clarification of the roles of leadership for 1) general administration, 2) education and 3) research and infrastructure.
- The leadership function, which is to ‘create possibilities in relation to personnel and facilities’, should focus on the creation of common research platforms and physical concentration of academic staff within ‘*Odontologen*’. CAVEAT: Faculty should assist in clarifying ASAP the physical premises allocated to IO during and after the new SA buildings that are planned.
- Department leadership should work to relieve researchers of their 25% clinical work duty as per the TUA agreement.

B1.2 Faculty/University level leadership

Strengths

- Discussions to promote research collaboration with medicine are supported by the faculty.

Weaknesses

- The faculty presence is not felt. Many policies/traditions are local (IO), and not emerging from the faculty/university (e.g., internal promotion 'rules', lack of international recruitment).
- Little attempt to extend research collaboration for a mutual benefit across the borders from dental sciences to medical, natural and technical sciences.
- Interactions with the faculty seem to be at the 'discussion' level and mainly centre around the use of common core facilities. Other institutes working in areas closely related to the field of odontological sciences, e.g., biomaterial sciences, have only limited collaboration with the institute.
- Self-evaluation focus is on purely administrative issues.

Recommendations

- Create an overriding policy for the definition of strategic areas for research focus.
- Better utilisation of Swedish dental and general health records. These are probably among the world's best sources of cohort data, and some have already been used for epidemiological and demographic studies.
- More efforts to open the expertise of dentistry to other science fields.
- Ensure reciprocal commitments among different faculties.
- Define dental science contributions to medicine and technical sciences.
- Create an 'infrastructure' in which relevant researchers from other departments at Sahlgrenska/Chalmers present 'state-of-the-art' research in their field. Mandatory participation for (IO) PhD students.

B2. Recruitment

Strengths

- Good reputation and attractive working environment of the institute has made good recruitments possible.
- Starting grants for new research employees.

Weaknesses

- The institute maintains that it is important to find staff with a strong background in all aspects (research, teaching, and clinical work) – this limits the research scope of the institute, as well as the possibilities for bridging to related fields in Sahlgrenska and other institutions.
- There is very limited international recruitment. It limits international recruitment that academic teaching can apparently only be given in the Swedish language.
- Trying to combine clinical and research competence of recruited persons is not necessarily resulting in an optimal end-result, clinically or scientifically.
- Postdoctoral training abroad is seldom the case with present staff members.
- Internationally-recruited staff members are too few.

Recommendations

- Consider recruiting researchers who can bridge the gaps between the institute and Sahlgrenska/Medical/Biological/Biotechnical research groups in general.
- Increase the number of internationally-recruited research staff members to the tailored positions of “Guest Professors” or “Collegium Scientists”.
- Well-paid guest professorships of 1–3 years’ duration might be a way to attract international competence and ensure international input.
- Staff members should be encouraged to go for international postdoc periods.

B3. Career structure

Strengths

- The institute has a lot of PhD students (15 FTEs with a studentship and 44 students without).
- Attempts to improve researchers’ careers is made in all undergraduate programmes.
- Job security.

Weaknesses

- Recruitment into research positions seems the most imminent problem. Most PhDs seem to ‘vanish’ into the Public Dental Service.
- Most recruitment is internal, and promotion often ‘automatic’, which entails the risk of scientific inbreeding.
- International PhDs are not recruited.
- Postdoctoral positions do not exist or are very few in number.
- No overall IO strategy for the retention of PhDs.
- Very little researcher mobility – both in terms of other Swedish institutions and in terms of international research stays with other groups/labs.
- Combined (clinical/research) positions: The few most gifted in such positions may generate and conduct good research, the majority may at best be collaborators. But it is a vent for those either not willing or competent to pursue an academic career.

Recommendations

- Make sure postdoc positions are available at institute level for retention purposes.
- Programme for researcher mobility.
- Stipends covering travel and accommodation for up to (e.g.) a three-month stay with research groups abroad.
- Make research stays abroad a mandatory component of the PhD programme – certainly for those financed by the institute.

B4. Funding

Strengths

- Some disciplines hold considerable external grants, and are sufficiently exter-

- nally competitive to be able to win new grants.
- The TUA funds may ensure some stability in funds for research for all IO research staff through internal competition.
- Basic university funding seems to have been stable during the period reviewed.

Weaknesses

- Annual external funding (average: SEK 5.8 million) (+ TUA funding: SEK 6m) could be considerably higher.
- No funding from the EC or ERC has been received.
- Limited tradition of IO management in devising strategic research initiatives to promote funding.
- TUA agreement promotes internal competition – not necessarily conducive to cooperation.

Recommendations

- More efforts and motivation to apply for international-level research funding.

B5. Feedback and evaluation

Strengths

- Disciplines enjoy almost total freedom in terms of their strategies for research development. This is undoubtedly a key motivation for staff.

Weaknesses

- Apart from annual follow-up on individual researcher performance (publications, funding) performed by section heads, there is no real IO-level hand on the development of research environments – the institute is the sum of its constituent disciplines.
- Performance in competing for external funding has not been systematically evaluated.

Recommendations

- Motivation and support for evaluating research outcomes should be actively started.
- The annual salary review process would seem like a potentially potent stimulator for research and recruitment.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Some disciplines are very strong in international cooperation, and in cooperation with other national and local institutions.
- There is an ongoing collaboration with Chalmers University of Technology.

Weaknesses

- TUA research funds can only be used within the Västra Götaland region (VGR), and this limits the possibilities for collaboration outside VGR.
- Collaboration with other Swedish universities, especially within dentistry, is lacking.
- Global academic collaboration is limited.
- Most of the institute's prestige relies on research in implant-related problems.

Recommendations

- The institute is encouraged to actively search for research collaboration with other Swedish universities.
- It could be of interest to single out another area of research, which could piggy-back the resources and experiences of the implant success story. This might be industry-related (Bennett), public health (Skapa) or similar.

C1.2 Collaboration with external stakeholders

Strengths

- The TUA agreement provides substantial research funds for internal use and enables clinical research.
- The adjunct positions for non-academic stakeholders.
- Strong collaboration with dental products industry – implants in particular.
- Strong history of and ongoing research collaboration with implant companies.

Weaknesses

- Underutilisation of the PDS cooperation as a research resource for clinical projects.
- Industry-commissioned research a possible threat to scientific integrity.
- External stakeholders as collaborative partners for the institute represent limited fields of industry.
- The financial and organisational integration of the PDS and university may have its advantages, but it is largely perceived as a disadvantage.

Recommendations

- Broaden adjunct position programme to encompass international academic and non-academic stakeholders.
- The institute is recommended to search industrial collaborative partners outside of dental industry, and more internationally within the dental industry.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- The university and institute have followed societal signals by enabling the evolution of the practical profession of dental hygienists into an academic discipline. A similar process can be seen in dental laboratory technician education.

Weaknesses

- There seems to be little institute-level effort to promote interaction with society, in order to increase utilisation and application of research results –this interaction is taking place at the discipline/individual researcher level.
- No current rewarding system for activities within the “third task” of the university.

Recommendations

- Management should consider methods of supporting staff members in becoming more active in the utilisation and dissemination of research results for society.
- The institute is recommended to support the development of dental hygienist education towards an oral health-promoting discipline, e.g., by doctoral training.
- Special attention should be paid to the global change and development of dental technology, which could have a similar impact to the evolution of the dental technician profession, as is seen with the dental hygienist profession.

C2.2 Research relevance and impact on society

Strengths

- Attempts are made to disseminate research findings to a broader audience through dental peers, and with significant impact on public dental services.
- The institute has generated some intellectual property rights (IPR), which have been transferred to the dental industry.

Weaknesses

- Attempts to impact society have focused on the dental profession.
- Activities to impact other fields of science and society have occurred only to limited extent. More attention should be paid to supporting the transferral of scientific results to inventions.

Recommendations

- The institute should pay more attention to actions by academic staff members, in order to be more active in disseminating the expertise of dental researchers to the wider research community, industry and society.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Students are taught by researchers.
- Having teachers working both in research and in clinics promotes transfer of recent scientific information to the teaching activities.
- Monthly APT meetings ensuring transfer of research results into standard operating procedures.
- Some scientific training of undergraduates through their master's thesis.
- The amanuensis programme, enabling students to work in research within the disciplines during their studies.

Weaknesses

- By agreement, IO researchers spend 25% of their time doing clinical work that is neither teaching nor research related. This may seem a waste of their special competences.

Recommendations

- Renegotiate agreement to ensure that more of the researchers' time is devoted to tasks related to clinical teaching or research.

C3.2 Doctoral education

Strengths

- IO-employed PhD students are integrated into research environments.
- Non-IO employed PhD students offer the possibility of introducing research into the clinic.
- The retention and involvement of emeritus professors.
- Access through NorDoc to doctoral training courses given in other Nordic universities.

Weaknesses

- Part-time PhD students who are not employed by the institute miss out on the academic environment, and there is a sense that the quality of their theses is lower than that of IO-employed PhD students.
- Long PhD study duration.
- Lack of socialisation of PhD students.
- Although doctoral studies are key activities of the institute, little attention has been paid to organise a "dental/oral health postgraduate school/doctoral programme".

- No collaboration exists with doctoral programmes in other institutes and universities.
- The institute has not organised a systematic doctoral training programme for oral sciences. There is no such programme on the national level either.
- Doctoral students are selected to start doctoral studies by acceptance of the discipline head, without a transparent selection process where research and study plans are evaluated.

Recommendations

- Reduce part-time PhD studies – part-timers do not become academically integrated, and they seem mainly to fill a role as ‘research assistants’ to supervisors.
- Make a 3–6 months’ research stay abroad a compulsory part of PhD training to strengthen outlook and international collaboration.
- The institute should rapidly organise doctoral training in an “oral health doctoral programme” which coordinates and supports doctoral studies, and provides regular courses and seminars for the students. By this, part-time students may also become more involved in systematic doctoral training.
- Doctoral programme for oral sciences on the institute, or preferably the national level, needs to be organised.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- Monthly research seminars organised by the institute, open to all staff.
- Attention has been paid to knowledge transfer, and the expertise of senior researchers and emeriti to younger academic staff members.

Weaknesses

- It seems that most academic activities take place only at the discipline level.

Recommendations

- Strengthen the academic culture by creating informal meeting places for IO researchers and doctoral students. Joint lunch rooms, coffee machines, lunch seminars, joint research facility platforms.

D2. Publication

D2.1 Publication strategy

Strengths

- Publication in dental journals – results may reach target audience.

Weaknesses

- Publication mainly in dental journals – overall little ‘outside’ impact.
- There is no strategy for encouraging publication in journals of other fields. The present actions to promote publishing benefits dental society, but the visibility of dentistry and impact of dental research in a wider perspective is limited.

Recommendations

- The institute should pay more attention to promoting publishing not only in good quality dental journals but also in journals of fields which may benefit research by dental scientists and increase the visibility of dental science.

D2.2 Analysis of bibliometric data**Strengths**

- Publication activity high for many disciplines – overall impact above average.
- Publications in open access forums have increased over the period.

Weaknesses

- Publications lists indicate underreporting to the GUP system.
- Similarly, the number of doctoral theses is underreported.
- Although the total number of refereed publications annually is quite high (85–130), one could expect to see an even higher number of publications based on the number of academic staff members.
- Internationally co-authored publications are few in number.

Recommendations

- Increase the number of internationally co-authored publications.

D3. Facilities and research infrastructure**Strengths**

- To a large extent disciplines have their own facilities, including a 0.5 FTE lab technician provided by the institute.
- Sahlgrenska Academy can provide good infrastructure for biomedical research, which does not require specific dental research infrastructure and expertise from the assisting personnel.

Weaknesses

- Poor sharing of resources. It is not clear how/to what extent Sahlgrenska Core Facilities are used – having core facility platforms within the institute could promote internal collaboration.
- This is according to the international trend of building large core-facility laboratories, and one field of research which has suffered from this trend is dental research.

Recommendations

- Promote the creation of joint facilities and platforms.
- The importance of specific dental research laboratories, including disciplines covering e.g., biomechanics of dental tissues and materials, digitalised processes and imaging systems, needs to be highlighted to the faculty/university, and initiatives for creating such laboratories need to be taken.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- There is focus on this aspect.
- Attempts to promote more women professors.
- IO attention to women obtaining the necessary qualifications (supervision etc).

Weaknesses

- Not clear how a gender balance is defined, e.g., 50/50? proportion to gender distribution in student mass?

Recommendations

- Formally define meaning of 'gender balance'.

D4.2 Internationalisation

Strengths

- Availability of funds allowing visiting researchers/professors.
- The institute is an attractive place for visiting scientists in certain fields of dentistry.
- Good collaboration with dental industry creates international research visibility.

Weaknesses

- Internationalisation is mainly in the form of international collaborations among researchers.
- There is no organised system for inviting visiting distinguished professors ("guest professor" or "collegium researcher") to the institute to conduct research for periods of 1–2 years.
- No attempts to promote stays for doctoral students with collaborating international labs/research groups.

Recommendations

- Recruit staff internationally.
- Make stay in research lab/group outside Sweden a mandatory part of the PhD programme.
- Institute should consider starting a distinguished visiting professor programme to enhance the multidisciplinary understanding of scientific problems and solutions in dentistry.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- The availability of TUA funds for internal research grants.
- Support and positive attitude by the PDS to carry out clinical research.

Weaknesses

- Little internal research support.
- Grants office exists at Sahlgrenska but no IO dedication.
- Little administrative research support.

Recommendations

- Employ a dedicated ‘fundraising/grant-writing’ assistant.
- Explore strategic avenues for the acquisition of larger, European or international grants.

E2. Faculty and University-wide support

Strengths

- Availability of certain core facilities (animal house, library, legal advice, grants office).

Weaknesses

- Expensive facilities.
- Methodological help in study design and analysis could be closer to the institute.

Recommendations

- Make sure that all new PhD projects are qualified, statistically and design-wise, before commencement.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The institute has attempted to address the ‘fragmentation of research’ by initiating more core facilities to promote collaboration between its disciplines. On the one hand, it is reported that this initiative is successful, on the other hand comments are also made on how difficult it is to make disciplines cross-fertilise each other, and the institute finds it difficult to initiate such interdisciplinary collaborations. Even so, it would seem that the institute could play a stronger role in fostering and supporting this development, for example by condensation of research staff, creation of joint research facility platforms, and by recruiting internationally or at least outside University of Gothenburg (UGOT). The OMI (oral microbiology

and immunology) professorship, which by necessity was taken by a non-dental researcher specialising in inflammation, shows a way to address the issue. It is clear that the internal competition for TUA funds and perhaps historical scars may counter collaboration and cross-fertilisation between IO disciplines. Therefore, more resources could be put into aiding disciplines in acquiring external research funds. Moreover, the tight correspondence between the educational need for specific disciplines and the matching research lines/groups might be rethought; this tight link seems to be a limiting factor given the 'below-critical-mass' number of staff in some disciplines; and it is probably more important that students are taught by a researcher with a good basic researcher training than by a researcher whose research is devoted precisely to the particular educational/clinical topic. It is clear that the staffing situation does not allow this principle to be upheld. The same could be said about the requirement for a clinical (dental?) specialisation for academic work. It would seem that the institute is actually putting considerable resources into the PDS by training PhDs who have no intention of working in academia, but remain in the PDS. One might suggest that these should not lead to full PhDs but perhaps to licentiates.

Many of the issues pointed out by the panel in RED19 were also identified in RED10. This calls for an internal discussion at UGOT on how to implement recommendations. Management attention to this is required.

F2. Other matters

It is clear that if the meaning of 'complete academic environments' is that research at the institute is carried out by a dentist who has completed a PhD as well as a clinical specialisation, research candidates may wonder why so much education should be so relatively poorly remunerated. However, the incentives to engage in research are typically not financial, and some form of 'mentoring' particularly interested and engaged students at the pre-graduate level would seem a more feasible way of making prospective undergraduates interested in pursuing a research career.

International recruitment is another path to follow. Given the strong international reputation of the institute, it would seem that the barriers are internal (though not given by law), and could therefore be broken down, pending a change in philosophy and mindset.

The remarks about an increasing 'split' between the PDS and institute in terms of clinical education are worrying, in that clinical education may be approaching a lower common denominator, set by ever-changing clinical staff at the PDS. It remains to be seen whether the planned University Dental Care initiative can be used to counter this development.

CONCLUDING RECOMMENDATIONS

Overall, the issues identified in the preceding sections remain essentially the same as identified in the RED10 report, and the recommendations of RED10 remain valid and relevant. A crucial question, therefore, is how to equip the departmental and faculty leaderships so that the issues identified are truly addressed.

**PART II
PANEL REPORTS**

**SCHOOL OF BUSINESS,
ECONOMICS AND LAW**

SCHOOL OF BUSINESS, ECONOMICS AND LAW

912	Introductory Remarks
912	Section A – Background and Research Standing
912	A1. Background
913	A2. Research standing
913	Section B – Leadership
913	B1. Leadership
914	B2. Recruitment
914	B3. Career structure
915	B4. Funding
915	B5. Feedback and evaluation
916	Section C – Complete Academic Environment
916	C1. Collaboration
916	C2. Relevance and impact on society
917	C3. Research-teaching linkages
918	Section D – Academic Culture
918	D1. Academic culture
919	D2. Publication strategy
920	D3. Facilities and research infrastructure
920	D4. Transverse perspectives
921	Section E – Support
921	E1. Internal research support
921	E2. University-wide support
921	Section F – Other Matters
921	F1. RED10 evaluation
921	F2. Other matters
922	Concluding Recommendations

INTRODUCTORY REMARKS

The panel has reviewed the self-evaluation report of the School of Business, Economics and Law, and held a brief meeting with the faculty leadership during the RED19 site visit. We also had a separate meeting with some doctoral students and young researchers.

We find it a little difficult to give an evaluation of the faculty, as it is our impression that the responsibilities and tasks at the faculty level are not clearly defined by the university. As a unit, however, the School of Business, Economics and Law is a strong institution with a deserved highly recognised place within the Swedish academic environment.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The School of Business, Economics and Law (henceforth “SBEL”) is a faculty within the University of Gothenburg that comprises four departments; Economy and Society, Business Administration, Law, and Economics. Furthermore, SBEL also hosts an interdisciplinary research institute, the Gothenburg Research Institute, and a number of research centres.

SBEL is the only triple accredited business school in Sweden, that is, the quality of its work in teaching and research is simultaneously recognised by EQUIS, AACSB and AMBA. On the school’s website it is claimed that this “Triple Crown” accreditation is valuable proof that education, research and collaborations maintain an internationally high quality. This degree of accreditation is not easy to achieve and has to be a signal that confirms the standing of the school internationally. This is something to be highly commended and an achievement that the school is entitled to be proud about.

The research centres appear to have a key role in the infrastructure that underpins the research activities of the school. These are partly set up on the initiative of the university centrally and partly by the faculty. They are multidisciplinary and functionally defined, and are related to a specific societal occurrence that must be studied using a range of disciplinary approaches. The centres are evaluated every three years. All researchers are employed by their departments in order for them to keep their disciplinary ties and their administrative affiliation. The centres have reference groups involving external actors. They also have substantial amounts of external funding, both from external parties and from research councils. Additional funding may be obtained by involving the central university administration.

The centres are in principle time-limited. A central policy limits their term to six years, but the policy does not determine what should happen after the expiration

of the six years. In most cases the centres are prolonged. The structure that is established does not, however, seem to stand in the way of the faculty making strategic decisions to close down a centre. The centres are evaluated every three years by external assessors. However, it is not clear from the self-evaluation report how this is carried out.

A2. Research standing

We believe that as well as organisational structure there are also important issues of identity and the brand that contribute to the overall coherence of the school as a collective entity for successfully carrying out its core activities in line with its mission, goals and values. As such, the school has a dual identity in terms of being both a faculty of the University of Gothenburg (UGOT), as well as being a business school and a law school. Is there a tension between these identities and, if so, can this tension be successfully managed? The answer to this probably entails developing a carefully constructed brand. There is also a historical legacy in the different brands of UGOT and SBEL. But this was no longer seen by our respondents as a contradiction. The Swedish name “*Handelshögskolan*” could be a little misleading. This raises the question of how the brand works and what it does to the perception of the school and its constituent parts. The faculty is working on its dual identity and on turning it into a strength.

In terms of overall strategy, the school has been working to leverage research both in terms of quantity and quality for a number of years. The self-evaluation report stresses the importance of a strong research culture, promoting high-quality research, promoting sufficient research breadth, establishing close relations and collaborative spaces surrounding society (e.g. through the research centres), setting research priorities, as well as working with key performance indicators (KPIs) for research.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Faculty leadership

When it comes to faculty leadership in relation to the departments, the principle of subsidiarity prevails. There are however, matters dealt with at the faculty level that have important implications for the departments’ research and research education. The Recruitment and Promotion Committee makes the necessary preparations for decisions for recruitments, promotions and appointments of academic staff and appointments of expert reviewers. The main tasks of the Preparatory Committee for Research and Research Education are to contribute to the faculty’s quality management in research and research education issues and to spread information and experience on these issues within the faculty. Based on the recommendations from these committees, important decisions are taken at the faculty level that may affect research at the departments.

Strengths

- The background material and the interviews give the impression that the departments are in general satisfied with their relations to the faculty.
- Faculty leadership has been instrumental in promoting department research initiatives.

Weaknesses

- The differences between departments are great, in particular when it comes to the Department of Law, which with its different research traditions has difficulties in obtaining recognition for the research and publication strategies that pertain within the field of law.

B1.2 University level leadership

The panel has not separately addressed this question.

B2. Recruitment

Recommendations

The Visiting Professor Programme (VPP) was created at the faculty level and seems to be effective and popular with departments. But could it be more flexible and open in terms of e.g. attracting rising stars and offering shorter terms? The programme is funded by corporate sponsors, which must be convinced that the programme attracts “top stars”. For the third round of the programme, the faculty had to approach new companies. This resulted in scaling down the programme and supplementing funds with the faculty’s basic funding. The faculty is now working to make this a permanent part of the activities of the faculty. During the programme’s renewal, it might also become more targeted towards junior scholars. Much emphasis is put on maintaining the contacts that has been established through the visiting programme.

Recruitment and the academic appointment board: The labour market for academics is increasingly international and changing, and the faculty has been successful in recruiting internationally, particularly the Department of Economics. The other departments are encouraged to follow this lead. The number of international applicants is increasing, particularly over the last 10 years. Positions are posted internationally. This puts demands on the system for simplification of the process. For formal teaching positions, national legislation and the university’s regulatory framework set firm limits to such a development. Nevertheless, the faculty tries to reduce red tape without losing the rigour of the assessment of merits. We encourage the faculty to further investigate how to make the recruitment process more efficient.

B3. Career structure

Career structure and planning is stimulated mostly at the department level. However, the faculty also makes positive contributions, particularly in the field of internationalisation, by providing stimuli through the VPP and travel grants.

Recommendations

- The faculty should determine the promotion criteria for researchers, and in this way incentivise researchers to take on academic responsibilities in the discipline.

B4. Funding

The power to make decisions concerning research matters is mainly decentralised to the department and according to the faculty's strategy for 2017–2021, research priorities shall be based primarily on bottom-up processes. The Faculty has a model for allocation of research funding to departments that is based on an algorithm of fixed and performance-based parameters.

Recommendations

- The departments are not happy about the way the basic funding is allocated within the faculty, and the necessity of external funding varies between the departments. The system of basic research funding at university level is based on outdated criteria and determines allocation of funding across faculties. The faculty works to change this at the university level, and there is a consensus building at the university that the old system is no longer defensible.

B5. Feedback and evaluation

The faculty provides feedback to the departments through the monitoring of KPIs and discussions with the department management. The KPIs are less relevant for the monitoring of activities at the Department of Law. Legal science is predominantly normative, based on the positive legal norms of the legal order where it operates, in this case Swedish law. Legal research requires publication both in national and international outlets. The task for all academic legal institutions in Sweden and abroad is to increase the scientific elements of the legal system in order to increase and protect the rule of law. There are some international publications for the fields of more general legal theory and for international law, but the main academic publishing outlets are national and specific for each legal order. This entails that legal science is not adapted to be measured by bibliometric standards adopted for more empirical or general theoretically based sciences but must be assessed according to criteria related to these tasks. At the same time, it must be recognised that law is becoming more international, and that comparisons are needed in all fields of legal science. Legal science must also relate to an international theoretical discourse.

A similar situation applies to other departments as well. Economic History, a unit within the Department of Economy and Society, is for example a discipline with relevant research topics about Swedish business history. That does not imply that the research is irrelevant for the international academic community. But it is important to be evaluated in relation to the special character of the discipline.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The research centres are a clear strength of the school, allowing for collaborative spaces and inputs from practice to new research initiatives (see discussion above). In addition to these, the school benefits from joint research centres and more informal networking not least with other academics both national and internationally.
- A further strength is the Visiting Professors Programme which was seen in overwhelmingly positive terms by the respondents in our visits to the departments at the school. These facilitate possibilities for collaboration on a broader footing with the visiting professors' home institution.

Weaknesses

- One possible weakness is the absence of clear mechanisms for closing down research centres and other sites of collaboration that might have outlived their usefulness.

Recommendations

- We strongly suggest that the school continue with the research centres (subject to regular evaluation and review) and the VPP. In terms of the latter, however, it might be worthwhile reflecting on whether the programme is designed optimally, and whether it could allow for more flexibility. This is also an area where decisions can be made to leverage a greater presence of the underrepresented gender at the professorial level.

C1.2 Collaboration with external stakeholders

The panel has not separately addressed this question.

C2. Relevance and impact on society

All of the departments and groups are active in different contexts, particularly towards regional actors (municipality of Gothenburg, NGOs, regional business (Maritime cluster, Volvo etc.) and research partners). Other output consists of e.g. contributions in government and committee reports, assignments for public authorities, and society at large including media.

It is clearly a strength that the school has effective links and collaborative spaces with key actors in the surrounding society, notably larger private and public sector organisations, via the research centres. These provide opportunities for ongoing dialogues on matters of concern and interest 'in the field' that can provide an important input and inspiration for new research projects. Moreover, such links can simplify the challenges of gaining access to conduct empirical work both for

senior researchers engaged in larger projects and master's students. In some cases, the work of the centres can open up possibilities for additional external funding. The relative success of the centres is testified by the fact that the lifespan of the centres is not infrequently extended when they are evaluated.

On the other hand, a clear weakness is that the notion of societal impact is not clearly defined or operationalised. Moreover, collaboration is not an end in itself and neither can it be equated with impact. Whilst there are certainly measures in place to recognise scientific impact in the school's incentive structures for faculty, these are less clear-cut for practitioner and policy impact.

The school might usefully consider carefully examining the literature on impact internationally with a view to agreeing a definition of the term and how it might be operationalised. This isn't easy as there is no single accepted definition of the term. Moreover, it is generally accepted that the mere diffusion of new knowledge (from research) is insufficient as an indicator of impact. Genuine societal impact is usually understood as actual change in society in some format. The difficulty here is that such change can often take many years to materialise and not be evident within the timeframe of a research project or even the next research evaluation or accreditation exercise. It would be more realistic, therefore, for the school to talk about potential impact of research outputs – on both practice and policy – as well as the pathways and mechanisms for achieving it. This can be judged alongside scientific impact which is easier to assess through for example journal rankings and citations.

Sustainability is approached through seminars and encouraging groups to work interdisciplinarily. When initiating new full professors, sustainability issues are considered as part of the position. The second VPP was directed towards competence involving sustainability issues. There are otherwise no incentives or activities to influence research, but the faculty encourages sustainability issues to be included within study programmes. The faculty is aware that they educate students to take positions of power in society, and CSR and sustainability are important dimensions for them to be conscious about.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

The administration of the master's courses has by some departments been seen as too distanced from the teaching staff. The graduate school has now been reorganised with the Heads of Department on the board. This has reduced the problem, but we still encourage the faculty to act to increase the flexibility of course administration, e.g. to be able to more freely use visiting professors in teaching.

C3.2 Doctoral education

It is a strength that there are ongoing dialogues on how to support PhD students in their preparations for the job market. This is reinforced by a well-established

career service that focuses on motivation, strengths and career planning, including workshops on personal and professional development.

A weakness of the PhD programmes is their relatively low intake, not least in the absence of stipend financing and the obvious implication this has on the viability of courses. Different departments have responded in different ways. The response at the Department of Business Administration has been to limit the intake to every other year, which has the advantage of reducing administrative outlay. This response however carries the danger that the department may miss out on recruiting some of the best talent on to the programme. Another weakness, which the school shares with most Swedish institutions, is that many PhD students do not complete their PhD studies on time.

Although the digitalised individual study plans have been developed as an attempt to keep PhD students on track with their studies and thereby finish on time, their impact hasn't necessarily been seen as a success. The students are supposed to use individual study plans, but many see them just as an administrative burden. They do not use them in the way that they are intended and therefore do not get the full benefit from them. Perhaps the school needs to consider in more detail what it can do to support PhD students who are unable to finish in time and perhaps explore what other preventative measures can be taken. In many cases part-time teaching contracts are provided, but this is very ad hoc and can't be a standard solution. Is there anything more that the faculty could do? Further pedagogical training of supervisors with regular updates could be a possibility. Engagement of supervisors is also important. The quality of the pedagogy courses for teachers and doctoral supervisors is not seen as good enough and is much too focused on theory. More is needed on dealing with typically problematic practical situations facing teachers and supervisors.

The faculty is disadvantaged here compared to other universities in Sweden in that they cannot provide the special scholarships to PhD students in economic disciplines. There are benefits that could be obtained by cooperating with other institutions in Sweden or Scandinavia. There is nothing from the faculty level that prevents this, but it is also not promoted by the faculty.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

As part of the faculty's strong commitment to fostering sustainable development, the Deputy Dean has a special responsibility for sustainability and the work environment. She also chairs the Council for Sustainable Development, which provides departments with training and strategic support on sustainable development issues, and whose members consist of researchers and a student representative, Sustainability is approached in a dual way, both through seminars and encouraging groups to work interdisciplinarily, and by supporting a sustainable campus.

The faculty is strongly committed to research on sustainability, meaning that sustainability issues are considered as part of the position when initiating new chairs, especially in relation to the second VPP, where this was directed towards competence involving sustainability issues. One example of this is the initiative that has been made to raise funds for a professional chair in Ocean Governance Law and the establishment of the multidisciplinary research centre in Global Human Resource Management.

Besides this, there are no direct incentives or activities to influence research, but the faculty encourages sustainability issues to be included within study programmes. The faculty is aware that they educate students to take positions of power in society, and CSR and sustainability are important dimensions for them to be conscious about. Sustainability is not just about environmental issues, but also about social and economic sustainability. The subject in the broad sense is treated differently at the faculty's departments. At the Department of Economics and Society, sustainability research is an explicit issue in most of the research projects in human geography, both in their academic progress and in relation to their collaboration with external stakeholders.

D2. Publication strategy

It is a strength that there seems to be a clear emphasis on publishing articles in highly ranked journals. There will of course be slight variations of the significance of this across and perhaps even within disciplinary fields, but the overall direction of travel is clear and there are incentive structures in place that reflect this. This can perhaps be understood as isomorphic pressure from publishing practices elsewhere not least the Research Excellence Framework in the UK.

On the other hand, there are weaknesses in this approach. Whilst the ambition and efforts of the school in this regard are to be commended, there are perhaps reasons to ask whether a more balanced approach to publications might be more consistent with the expressed research aims of the school, given that it covers disciplines with very different traditions for publication and assessment of excellence.

It is clear that publishing in highly ranked journals downplays the importance of other forms of publications, for example monographs or teaching cases. Indeed certain types of research, for example ethnography, do not lend themselves well to publication in the journal article format. Another difficulty here is that publishing in top journals inevitably prioritises mode 1 knowledge outputs at the expense of mode 2, despite the express desire of the school to engage in applied research. Put differently, there is a danger that the publication strategy of the school has too strong a tendency towards, in the words of UK researcher Hugh Willmott, 'journal ranking fetishism'. There is now a plethora of work not least in the management field that has argued that such a narrow approach to publication does not serve well the ambition to do cutting-edge research that genuinely moves the field forwards. Rather, it cements a rather safe and conservative approach to publishing. A consequence of this view, if it is accepted, is that the school requires a deeper

discussion of a more balanced approach to publishing including what it means to produce applied (i.e. mode 2) research of high quality. We would accept, however, that the precise balance of outputs within a desired publishing portfolio – and the relative significance of basic and applied research – may vary somewhat across scientific disciplines.

D3. Facilities and research infrastructure

There may be new rules for accessing data and for holding data. There are questions regarding the need for computing capacity and for labs. There are issues regarding making payments to conduct experiments. The plan is that all the bid data collection initiatives will be put on state action units and will be the open repository of the university. When it comes to infra-structure hardware, the faculty has obtained some external funding to finance particular equipment. In some cases, this has not been feasible.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

The faculty works with gender issues within the general university framework. The Department of Law has been a pilot department, and the experiences from this department are to be disseminated to the other departments. When it comes to numerical equality, recruitment is based on merits, and the policy is for gender blindness.

The faculty emphasises fundamental values to combat harassment and scientific misconduct. There is a regulatory framework at the university level which is well communicated and well known by everyone. This framework presupposes that conflicts of interest are recognised and dealt with at the level where the complaint initiates. Issues of scientific misconduct are dealt with by a special misconduct board at the university.

Strengths

- There is a horizontal network between the Heads of Department and the administration, and discussions between the faculty and department leadership, where this topic is discussed.
- The university has initiated a support programme directed toward young female researchers, which has been implemented at the faculty level.

Weaknesses

- The programme to support female researchers for promotion had some unintended failures. Women hesitated to participate in the programme, perhaps because of suspicions of being questioned about their skills.

Recommendations

- The faculty should not hesitate to continue to initiate gender equality programmes as long as the imbalance prevails. The importance of improving gender equality must be serious and ambitious, regardless of certain failures.

- Ensure that the gender blindness policy lives up to its purpose and does not promote informal structural inequality.
- In order to succeed in projects that promote underrepresented gender, it is necessary to be very careful with the communication about and the argumentation for the programme, and to make use of qualified competence at the university, at management level or at other departments for this purpose.
- Take advantage of the experiences of the pilot project at the Department of Law.
- The faculty should request qualified support from the central university level on issues of equality, harassment and misconduct.

D4.2 Internationalisation

The panel has not separately addressed this question.

SECTION E – SUPPORT

E1. Internal research support

Financial support, such as grants for researchers and doctoral students, is offered at both faculty and university level. This is valuable support and the researchers at the Department of Law have been successful with their applications. To facilitate the process, information about recurring grants and deadlines should be gathered on the faculty's website.

E2. University-wide support

The panel has not separately addressed this question.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The panel has not separately addressed this question.

F2. Other matters

The PhD student experience may differ between the departments. Overall, the faculty offers a welcoming environment to doctoral students. The departments are inclusive and welcoming in their approach. The staff make efforts to accommodate the individual needs of students. But sometimes PhD students are not given the possibility to teach, which can hamper them in their career-building. Also, the physical environment can be a challenge with long distances between the doctoral students and other parts of the department.

The tenure track requirements can be difficult to assess, and more security could be provided by for instance a mentoring programme. PhD students are connected to the departments, and there are few activities directed towards them at the

faculty level. There could be a source both for academic and social events across the departments.

In cases of harassment or misconduct there is a lack of information, but the level of confidence varies. There is a lot of information and there are people responsible to take care of such issues who are active and easily approachable.

In many cases PhD students do not finish before the money runs out. In many cases part-time teaching contracts are provided. Is there anything the faculty could do? Maybe a bonus system to supervisors when PhD students finish on time. Pedagogical training of supervisors with regular updates could also be a possibility. Engagement of supervisors is also important. The quality of the pedagogy courses for teachers is not good enough and is much too focussed on theory.

The students are supposed to use individual study plans, but many see them just as an administrative burden. They do not use them in the way that they are intended and therefore do not get the full benefit from them.

CONCLUDING RECOMMENDATIONS

The panel has not separately addressed this question.

DEPARTMENT OF BUSINESS ADMINISTRATION

924	Introductory Remarks
924	Section A – Background and Research Standing
924	A1. Background
926	A2. Research standing
928	Section B – Leadership
928	B1. Leadership
931	B2. Recruitment
932	B3. Career structure
933	B4. Funding
934	B5. Feedback and evaluation
936	Section C – Complete Academic Environment
936	C1. Collaboration
939	C2. Relevance and impact on society
940	C3. Research-teaching linkages
942	Section D – Academic Culture
942	D1. Academic culture
943	D2. Publication
944	D3. Facilities and research infrastructure
945	D4. Transverse perspectives
946	Section E – Support
946	E1. Internal research support
946	E2. Faculty and University-wide support
947	Section F – Other Matters
947	F1. RED10 evaluation
947	F2. Other matters
947	Concluding Recommendations

INTRODUCTORY REMARKS

Owing to the late withdrawal of one of our originally appointed panel members, the newly composed panel did not commence its work until rather late in the process. Following an initial read through of the self-evaluation report written by the department and the various other documents, we convened three Skype meetings in preparation for the site visit. In the first meeting, we discussed the self-evaluation report and associated documents in broad terms with a rather sceptical eye not least because of a possible tendency for window dressing in these sorts of exercises. At the second meeting we discussed, in a more focused way, what we thought were key weaknesses and gaps in the report and thereby areas where we would need to concentrate our lines of enquiry during the site visit. One key insight shared across the panel was that the self-evaluation was overwhelmingly a document drafted from the perspective of the Head of Department and his immediate collaborators in the management team. We felt that further investigation at the sub-unit level would be an essential element of our work and, following the second Skype meeting, we proposed a schedule for the site visit to the department to reflect this.

During the final meeting, we firmed up our lines of enquiry for the site visit and agreed a division of labour, based around the thematic structure of the report template, both for asking questions during the visit and for drafting the report subsequently.

During the site visit we arranged meetings with representatives of the following constellations: the Head of Department and the management team; the Management (and Economic Geography) sub-unit; the Industrial and Financial Management and Logistics sub-unit; the Accounting sub-unit; the Marketing sub-unit; PhD students; and, finally, a summary and preliminary report back to the Head of Department and the management team. Each session lasted approximately 1½ hours and notes were taken of the discussions on a laptop by each member of the panel in rotation.

Following the site visit, each member of the panel wrote up the section of the report that they were allocated and the final report was collated by the panel chair.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The current organisational structure of the department can largely be traced back to a reorganisation in 2010 when four core sub-units were established, namely Management, Industrial and Financial Management and Logistics, Accounting, and Marketing. Each of these has a Head of Section with wide ranging responsibilities including HR matters and teaching planning. The sub-units are answerable to the Head of Department and a central management team. The section heads have

no budget of their own and are expected to allocate teaching hours according to course budgets determined centrally. Each sub-unit also has a lead professor who although formally assigned with overall scientific responsibility for the research in the sub-unit, nevertheless has an unclear role in the organisational structure.

Research funding originating from the faculty is allocated by the Head of Department in terms of time assigned for research via a process known as 'Assigned Research Time'. In force since 2016, this has meant that to receive assigned research time, faculty members are required to teach a certain number of hours and report activities of earlier received assigned research time. Individuals with external funding can hence receive assigned research time if they are teaching the requisite hours. The department leadership consider assigned research time mainly as an assurance for individuals to conduct research without disruptions, and to support the idea of "academic freedom". The guaranteed element in their post for research (this varies between Assistant Professors, Associate Professors and Professors) does not apply to individuals who have access to external funding or have banked overtime.

Since 2012 a group of economic geographers has been subsumed within the Management sub-unit of the department. The rationale behind this was that a decision was made by the university centrally to reduce the total number of departments and put into effect a series of mergers. The economic geographers in question had scientific interests, notably on a master's programme, closely aligned with the international business scholars in the Management sub-unit and it was felt at the time that there was a natural fit within the sub-unit.

The school also has a number of Research Centres that cut across the core structure. Six of these are hosted by the department including the Centre for Tourism, the Centre for Retailing and the Centre for Global HRM. Each is headed by a Director and Steering committee and function as a collaborative platform that enables cross-disciplinary activity (both research and teaching) as well as enduring links to external organisations. Many (but not all) of the faculty are actively engaged in the work of the research centres. The idea behind research centres is strongly supported by the university centrally who have published guidelines on how they should be run. The centres broadly facilitate the research in the sub-units but do not lead it or detract from it. The centres vary in terms of the intensity of their activities for example holding seminars. Intriguingly, the management team see that the centres have stronger brands than the department centrally.

The department also has an administrative structure and two preparatory committees – one for educational matters and one for research and PhD education.

It is unclear whether the organisational structure of the department is a historical legacy or has been systematically designed to optimise research. One suspects that the latter is not the main driver here and that the requirement to follow administrative pressures may be more significant in this respect. For example, the increasing

emphasis in the sector as a whole on transparent HR processes including appraisal interviews, salary dialogues and performance management more generally has rendered it impossible for these functions to be carried out by a single Head of Department in large departments. Accordingly, a more decentralised structure at departments such as Business Administration has been inevitable. Other changes that have increased the managerial workload over the last 10 years are new practices such as applying salary criteria, promotion routines, monitoring and mapping gender inequalities, international recruitment processes and administering the assigned research time.

Overall, the fact that the School of Business Economics and Law is the only triple accredited business school in Sweden must be a positive indicator of the research standing of the department, not least that it is the biggest department in the faculty (SBEL). In particular, we are struck by the positive role of the research centres in leveraging the possibilities for inter-disciplinary work and collaborations of various types. That said, the core formal structure of the department doesn't necessarily seem to us to be research-driven.

But a central question we have concerned ourselves with on the panel is how much of the organisation/management structure is luggage and heritage from the past (from being mainly a teaching driven department) that might be hampering a new path (transition to a research driven department)? We suggest that the department reflect on itself with a broad and open mind on whether the current organisational structure is really able to support excellence in both research and teaching and to do this in a cost-effective and transparent manner.

We would therefore recommend the department to be open-minded and reflexive in the future on the appropriateness of the structure when it comes to supporting and promoting research excellence (however that is defined). A possible downside of the current structure and the role of the research centres is that the research profile can become somewhat fragmented not least because there appear to be no mechanisms in place to determine research priorities in the department. Are there more optimal solutions to organise, lead and allocate resources for instance by dividing sub-disciplines and research centres differently and according to alternative strategies and funding models?

A2. Research standing

The department has a clear research strategy codified in a document from March 2016 (Appendix A7 to the self-evaluation report). The overall goal is for research of 'high quality in an international perspective' and that this should comprise 'a significant part of the department's total operations, shall contribute to the department's educational activities and be independent but strategically coherent at the departmental level'. In concrete terms these aims are to be achieved through a high share of articles published in well-established scholarly journals and a high number of applications for external research funding. Further elements here are a high number of research-active teaching faculty and strong research environments.

Although the strategy is clear, one could question the basic assumptions underlying the notion of research quality inherent in the document and thereby the practices that have emanated from it. There is an inevitable bias in the strategy towards mode 1 (i.e. basic, in-discipline) research. This is driven by the institutional logic of scientific publishing. This sits uneasily, however, with the claims in certain parts of the self-evaluation (e.g. p.33 and table 6) that the department also performs 'practice-oriented' research. This is mode 2 in nature (i.e. applied and inter-disciplinary). Does the department value the latter or not? If so, how is this reflected in the publication strategy?

Moreover, the incentive structures, notably the salary criteria, strongly emphasise publication in top-ranked journals. Whilst this is commendable, it also has limitations as a means of defining and putting into practice a coherent research strategy. The dangers of such a focus have been well-documented in the recent literature: safety-first, conservatism and formulaic texts that might tick the boxes of rigour but do little to move the field forward. The latter requires a willingness to undertake high-risk publications to which journal reviewers might not necessarily be readily and positively receptive. Moreover, a strong emphasis on the AJG list in particular rather downgrades the scientific potential of good quality monographs. Using the Cristin list rather than solely relying on the AJG list to some extent offers a corrective here. But the department might still reflect on the benefits of a more rounded research strategy that values both the production of high-risk publications, quality monographs, mode 2 outputs and possibly even teaching cases as well as the traditional mode 1 outputs implicit in the research strategy. In any event, in some disciplines such as logistics the notion of journal rankings has little historical purchase or relevance.

Overall, we would assess the output of the department as being of at least average quality, probably higher. However, in terms of performance it is extremely difficult to make synchronic comparisons with other, similar departments as departmental constellations are rarely if ever like-for-like from one location to another. There are, for example, no readily available data on citations on a faculty-by-faculty basis. It might be rather more useful to make diachronic comparisons instead, that is, assess the research performance of the department with itself over time.

As stated, on one level the Triple Crown accreditation speaks for itself on the issue of research standing. But a deeper and more nuanced assessment of research standing requires in our view an understanding of how research initiatives emerge and are managed. There is currently a rather ad hoc mixture of both bottom-up and top-down approaches. There is a strong belief in the natural curiosity of individual researchers and research teams as being the primary driver for new initiatives. This is laudable and entirely in line with notions of academic freedom and the Humboldtian ideal. In this respect, strong leadership, at least at the departmental level, may not be as appropriate as is often claimed. There are, however, occasions when the departmental leadership can, and do, intervene to shape the strategic direction of the department notably on making commitments to co-funding of

research projects, promoting collaboration and through key recruitment processes.

On the other hand, there are occasions when research direction and thereby content are steered by top-down initiatives not least from the university centrally. Although there is much to be said for this dual approach, it is hard to discern systematic patterns of renewal here. We were unable to focus specifically on the research centres as a discrete unit of analysis and it does seem that the trajectories and fate of these are somewhat bound up with the interests and agendas of key external actors (e.g. Volvo and IKEA). These agendas may or may not be of relevance for the wider community. Either way, the priorities and futures of the research centres can't be easily predicted. In other words, this model, which as we have said, has much to commend it, does not lend itself well to medium- and long-term planning. Perhaps for this reason the panel got no clear answers from our respondents in the department on research vision (for example on key strategic issues and priorities) over the next 5–10 years.

The management team likened their role on leading research to that of 'herding cats'. This underscores the rather low level of managerial agency and scope for strategically intervening on research. Nevertheless, the significance of having a clear strategy is understood as is the need for some stability if the ambition of being a research-intensive department was to be realised. This also meant being an attractive employer. The team also recognised that it was desirable to develop areas of strength in the future, but there is little basis in the routines currently in place to assess which areas to focus activities and which to let go. After all, it's probably impossible for even the larger university departments to have expertise at everything.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The leadership of the department is in general characterised by inclusiveness through decentralised structures based on a bottom-up approach to research. Although there are plenty of strategy and policy documents for steering the direction toward a research-driven organisation, there seems to be a healthy awareness of the risk of "over policyfying" this development at the expense of curiosity-driven research of single researchers, research groups and sub-units.
- The operational review makes it possible, however, for the management and appointed professors with "special responsibility" to monitor and link the work of co-workers and sub-units to an overall strategy. In spite of this, there seems to be a very high degree of freedom for sub-units and research centres to develop their own research agendas as long as it results in decent output.

Weaknesses

- The strength of the open-minded atmosphere noted above can be contrasted with a couple of weaknesses or problems that need further attention. Some of these have very little to do with the leadership per se but are related to the organisational structure and its rationale. In many respects the organisation is still based on how to organise the large teaching assignment most efficiently. The crucial role of the sub-unit (section) leaders reminds us more of a director of studies than the character of a complete academic leader. The role is mainly dedicated to planning teaching, securing quality of courses and programmes and allocating teaching hours to co-workers. In addition, it is almost formalised that new positions should be identified and motivated from teaching needs. In comparison, research-related matters seem to be organised in a parallel and less formal organisational structure based on the activities in research centres and by strong professors. This gives the impression of a fragmented organisation and calls into question where the real power is located and if the current organisational structure and the way leadership is executed is well suited for promoting excellence in both teaching and research.
- Another concern is the strong gender imbalance, particularly in leading positions. Concrete measures to deal with this are not clearly spelt out.
- Finally, the long-term vision and goals for the department are missing. We have come across very few reflections on what implications a further transformation to a research-driven department will have on future leadership, relations between teaching and research, and the division of labour between different units and positions. We believe these questions are of a particular interest for a department with such a strong and important tradition in teaching.

Recommendations

- Most probably, the department will have large batches of students in generic or basic courses also in the future. Are there limitations to how research-intensive a department with a substantial teaching load can be before it becomes counterproductive for teaching and outreach? These overarching concerns should be included when formulating future strategies, policy documents and implementing policies. Otherwise, there is a risk that these documents deviate too much from what is possible to achieve, and thus risk creating tensions and frustration in the organisation.
- According to the department leadership, the allocation of research time is not designed to act as an incentive (see discussion in A1). However, in our discussions with the sub-units, we detected that the model does have incentive effects. Either way, this is a potentially good idea but it needs to be carefully evaluated.
- Career development support for female faculty needs to be specified and expanded. (see also B2 and B3).
- The department should investigate whether the performance-related salary scheme actually has the desired effects. Do those punished by lower wages step up and produce more? Alternatively, are they demotivated further? Do those rewarded by higher wages feel encouraged to produce at higher levels or would they have performed well anyway?

B1.2 Faculty/University level leadership

Strengths

- The faculty consists of only four departments, which probably is one reason why there is widely reported good cooperation, trust and successful integration, with many examples of cross-departmental activities and a close interplay between the departments. Another, and more important, reason is the triple accreditation that gives brand recognition and legitimacy to the school and thus strengthens the organisational identification and the attractiveness of its departments when recruiting students and new co-workers. Well-established school-wide quality criteria and committee structures, commitment and acceptance of the faculty model for allocation of faculty research funding to the departments are a further indication of a well-integrated faculty. The strong commitment to the school was also clearly expressed at the site visit – as explained in one of the sessions: “I’m at Gothenburg Business School not at Gothenburg University”.

Weaknesses

- In general, the “rest” of the university is rather absent in the mind-set of the school and the department, very few lines in the faculty strategy documents or the department’s self-evaluation touch or elaborate on possible strengths/weaknesses of belonging to a broad and fully-fledged university. This is an untapped possibility that potentially could further strengthen research quality and brand recognition compared to many other business schools that lack this opportunity.
- The faculty model seems to be constructed and agreed upon with a strong consensus by stressing the weight of parameters and the performance of the departments. It promotes stability, but at the expense of distributional effects based on differences in research output. In addition, according to the evaluation of the model, it has failed to reach its main goal to increase high-ranked publishing and funding from competitive research funders (report 2016).
- Furthermore, it is unclear whether the faculty strategy is any more than a desk product. At least it has so far not been thoroughly implemented and operationalised at department or sub-unit level.

Recommendations

- We suggest the faculty and the departments revisit the evaluation report of the faculty model (2016) and its question marks, in particular the more painful ones. Are there reasons to change the balance between the fixed and the incentive elements? Should other parameters and weights be in play, e.g. between different publications or grants as suggested by the Department of Economics? Should there be maximum and minimum levels regarding how much a department can gain or lose in the model? Perhaps the model should provide lowest baselines for keeping an acceptable academic environment at department and sub-unit level. These kinds of questions should be embedded in a strategic discussion about overarching policies regarding what disciplines/research/teaching areas the school needs to defend from an academic perspective and what is

needed for staying competitive in the long-run. This includes crucial reflections on how to find a balance between stability (heritage and tradition) and the need for creating/saving spaces and resources for renewal. The question should be open on whether a quantitative model is better equipped to settle which areas to promote, support or close down than informed “political” decisions at the faculty and department levels.

B2. Recruitment

Strengths

- Based on the self-evaluation report, additional documentation, and the site visit, we found a number of steps and measures concerning the recruitment strategy, which points in the direction of a stronger focus on research activities at the department. There is clearly an increasing awareness of the necessity for international and external recruitment, a strict policy to announce all positions openly to avoid internal appointments (*inlasning*) and an ambition to balance between promotions and external recruitment.
- Recently, rather late compared to other big universities, the department has started to recruit associated senior lecturers and postdocs. In addition, the number of professors has increased. By using the combination of promotion and external recruitment, the department has tried to find a middle way to gain external talent as well as retain in-house talents. If this combination is used with caution and in a balanced way, the department will possess a competitive advantage over Swedish universities where internal promotion has been blocked for years. All in all, this shows that the shift to a stronger focus on research at the department has also had an impact on recruitment strategy.
- The visiting professor programme is an additional factor reinforcing this picture, not least through how they act as role models, for capacity building and identifying potential international talent for future recruitment. As expected, all formal policies and plans for how to organise recruitment processes, and announce and evaluate new positions, are updated and in place both at the department and faculty level.

Weaknesses

- Against this rather positive development, we have identified a couple of weaknesses, not least based on the discussions during the site visit. Firstly, there is still a very strong focus on teaching needs when new positions are motivated and announced. There is too much focus on the ability to teach and work in Swedish depending on the number of courses in Swedish. These conditions make it harder to deploy non-native faculty with a strong interest/profile in research. Secondly, and more troublesome, the right to promotion to professor (see also benefits above and below) results in a shrinking space for external recruitment and an increased risk of lock-in. In particular, this is problematic if it leads to reproducing or reinforcing the existing skewness in gender balance on senior positions. Thirdly, the lengthy recruitment processes seem to be a problem of the same dignity as elsewhere in academia.

Recommendations

- We recommend putting more emphasis on strategic and long-term research needs in recruitment policies. Avoid starting only with teaching needs (in particular short-term needs), skip expectations on proficiency in/or learning Swedish when advertising positions. Develop the recruitment policy further by differentiating between short-term needs (often urgent teaching-related or project-based) and long-term strategic research and teaching needs. Short-term and long-term needs hardly ever go hand in hand. Teach all courses in English and develop/expand the master's level in order to make the department more attractive for international research-intensive faculty.
- Continue the strategy of increasing the number of research-intensive junior positions, such as associate senior lecturers and postdocs, in order to expand the research base of the department. Use pooled resources (mix of funding sources) for both categories and be flexible with associate senior lecturers in terms of sharing teaching and education. Increase risk-taking.

B3. Career structure

Strengths

- We have noticed a number of strengths regarding the career structure (partly overlapping with B2). Promotion rights for professors give credible career progression possibilities. This will probably also make the department attractive in external recruitment processes. Further on, if the promotion right is framed and used strategically it gives very strong incentives for in-house senior lecturers to publish, apply for grants, and supervise PhD students. Hopefully, it will also lead to strong commitments in teaching, leadership and in the development of the sub-unit/department in general.
- As mentioned above, the promotion right is in some senses a competitive advantage when it comes to retaining in-house talent at the university. Tenure track for associate senior lecturers shares some of these benefits, and gives the possibility to “school” young teachers into an academic climate where one is supposed to invest in both research and teaching, where the latter is not subordinated by the former as is the case for a full senior lecturer. The age structure, with rather many upcoming retirements in senior positions, is of course a challenge for the department but it also contains an opportunity for renewal and increased external recruitment. The low turnover of faculty and staff suggests a good working environment and high commitment to the department. One reason for this could be the tenure track and promotion rights, another is probably related to extensive routines and systematic measures for promoting the working environment.

Weaknesses

- The weakness regarding the current career structure at the department could be summarised in tendencies or risk of different forms of lock-in, due to low inbound and outbound mobility. The first and most serious of these is that promotion risks reproducing and even reinforcing existing skewness in gender

balance in the most senior positions. There is also, in combination with the overall low turnover of staff, a risk of lock-in content-wise leading to a lack of renewal capacity. The VPP is important for infusion of external knowledge and impulses for renewal, but cannot substitute for externally-recruited permanent staff when it comes to the long-term dynamics of research and teaching at the department.

Recommendations

- Again, we recommend restricting professorial promotions and further strengthening the possibilities for women to have more research time, stronger female representation in top admin/leadership positions at the expense of their teaching load. In addition, the sabbatical programme for outbound international mobility should be transformed in a way that staff really have the opportunity to use it (considering all the different barriers that come into play when spending part of a semester outside Sweden in particular that are related to women's possibilities for taking part).

B4. Funding

Strengths

- The department shows a good ability to attract external research grants in general and there are strong incentives in place at the faculty level (the faculty model) as well as at the individual level (salary schemes and promotion criteria) to apply for external funding. These hard incentives are combined with softer initiatives (e.g. the annual research day) where the focus is on how to cooperate and integrate different parts of the department in application processes and how to improve applications in general.
- The mix of very different funding sources in the portfolio is probably one reason for the success in terms of the rather high external funding share and the department's ability to balance shocks and downswings from single sources. Well established commissioned funding leads to strong incentives for outreach to local society, industry and policy circles. The faculty funding is rather stable (but decreasing, see below) which facilitates long term planning for the department.

Weaknesses

- Although the total level of external funding is high and rather stable the department is in general not that successful when it comes to competing for "advanced" grants. This could depend on a weak culture for applying from competitive funding organisations due to abundant other sources with less competition. During the site visit, one of the participants labelled this situation as "*the fat cat syndrome – why go for these tough grants when you can get easy money from other sources?*" This is understandable but there might be a conflict with the department's strategic goal of increasing the number of highly-ranked publications and basic research. There is a risk that "easy money" leads to "easy or light-weighted publications" (reports, policy briefs etc. – good for outreach and the third mission, but in many cases generate no high-end publications).

In this light, the low level of (and decreasing) faculty funding will most likely further reinforce the barriers to conducting basic research and stepping up the quality of publications.

- The panel is not clear about the department's strategy for using faculty money, and the principles for how it is allocated between units and research centres, or between professorial salaries and PhDs or other uses. The possibilities for creative pooling of different funding resources to create new and larger spaces for research seems to be underexploited and deserves more attention from the department leadership.
- Finally, the very successful and well-established commissioned funding needs strong awareness about ethical considerations. This seems already to be partly in place but should be expanded to all research groups at the department.

Recommendations

- Evaluate if there is any correlation between different funding sources and type of publication output and if there is a variation between different sub-units. Analyse if there is a tendency for commissioned funding to crowd out the propensity to apply for grants with strong competition.
- Develop a strategy for the allocation of faculty research funding to the sub-units that is more sophisticated than the present one (based on counting heads and students per sub-unit), and that allows for a pooling of resources from different sources in a more dynamic way related to the overall vision, in order to enhance the total platform for successful research.
- In addition, more attention should be paid to the importance of maintaining an academic culture and support structures instead of creating additional hard incentives in models for resource allocation and salary adjustment. This implies further investments in application seminars and systematic "green light reading" of application etc. Finally, we underline the importance when recruiting or promoting to new positions to put even stronger emphasis on the potential ability of the candidates to generate external funding from competitive grant holders.

B5. Feedback and evaluation

Strengths

- There are several evaluation mechanisms/processes regarding research quality in place that give rich opportunities for feedback and improvement. Evaluations are conducted externally and internally, as well as at different levels at the department. As part of a business school, the department is regularly assessed externally through the accreditation systems for business schools that among other parameters review the strengths and preconditions for research. It also provides valuable suggestions for improvements. In addition, evaluations like RED10 and RED19, focusing solely on the research component, provide further external views on research quality and on improvement processes.
- Internally, evaluation takes place on a yearly basis at department level through the faculty model and operational review, and at the individual level through

appraisal talks, the salary scheme and evaluation of research time. Research performance is included as an important parameter in all these evaluation models. The general impression from the site visit and interviews was that the evaluations contributed to increasing transparency and visualising what was expected of the department in general and for individual co-workers in terms of research output.

Weaknesses

- While the extensive number of evaluations might have a positive impact on the transformation to a more research-driven department, they are also connected to possible negative externalities. Firstly, there is a risk of “over-evaluating” things that cannot necessarily be evaluated in e.g. quantitative models. Evaluations are, moreover, often very time- and resource-consuming exercises and should be used with care (when there is an option to choose). The accreditation system is at the heart of most successful business school and represents an important cornerstone in the branding of the school. However, it is an assessment that takes into account many other parameters than research excellence. Some of the demands in the accreditation process may even be counterproductive or shift the focus away from excellence in research.
- Secondly, it is difficult to judge if the different forms of evaluation, incentives and feedback lead to increased dynamism in research activities. Correlation does not necessarily indicate a causal relationship. The faculty members were largely sceptical about the salary scheme as an incentive for increasing for instance international publications. A uniform picture from the interviews was that there are other driving forces behind publishing in good journals than salary increases. Factors like prestige, academic satisfaction and pure joy were put forward as much more important for successful publishing. The faculty model seems to promote stability rather than redistribution of funds between the school’s departments. According to the documents (*Utvärdering av fakultetsmodellen 2016*), no obvious increase in performance in terms of top-tier international publications and “advanced” external funding could be found at the school level. The result is partly the other way round, and in that respect, the model so far has failed to meet its main purpose.
- Thirdly, while the macro (department) and micro (individuals) levels are in strong focus for different forms of evaluation, there is no assessment of the sub-unit level. We found a very strong resistance, among all groups during the interviews, to evaluate or even discuss the performance of the sub-unit level. Although we understand the fear that this could potentially create tensions between different sub-units, this was a bit surprising since it is at this level where macro and micro processes unfold and the preconditions for doing research become visible. The absence of operationalised mid- and long-term academic strategies/goals at the sub-unit (discipline) level makes, however, such an evaluation problematic.

Recommendations

- Evaluation at macro and micro levels seems to be in place in a systematic manner, but there is no evaluation at the meso level – the sub-discipline level. The sub-unit is probably the core unit for understanding the performance of and the preconditions for the academic environment at the department. Are they doing what they are supposed to do? Do they get proper and fair resources in relation to their performance? Are they under/overfinanced? Are core academic areas covered by each sub-unit? Is there space for renewal, experimentation and path-breaking? Given that there are such large departments at the school, this level needs more attention for understanding the performance and the potential for the future. Start by testing the faculty model at the sub-unit level!
- Revisit, revise and sharpen the faculty model together with the faculty and the other departments. Evaluate the performance management process and analyse whether individual salary reviews really are successful. Check for unintended consequences.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths – Research Centres

- The department has a relatively rich and multi-faceted Complete Academic Environment. The central vehicle through which these collaborations are organised seems to be the research centres, which play a pivotal role in organising most non-teaching related activities at the department. Collaborations and networking with other parts of the University of Gothenburg seems to happen largely through the research centres, especially those that are cross-disciplinary in nature. The research centres are also a vehicle through which collaborations with external stakeholders, and relevance and impact on society happens, so some of the issues that pertain to sections C1.2 and C2. are also covered here.

Weaknesses – Research Centres

- The faculty members were largely positive towards the centres, but concern was also voiced that collaborations within the centres were given such priority that other types of more spontaneous, ad hoc collaborations were de-prioritised. In order to foster a rich complete academic environment, it is important not to let such formalised structures stand in the way of other types of activities that might be of a more ephemeral nature. There was very little mentioning of the complementarities, synergies and benefits (and maybe also drawbacks for a business school!) of belonging to a broad, traditional and fully equipped university. Perhaps this is an untapped potential for the department to make more out of its rather unique position as a triple-accredited business school within a university setting.

- Another concern with the research centres is that their management consumes time and energy that could otherwise have been used in doing actual research. We are referring here to firstly the administrative task of running the centres and communicating with various stakeholders, e.g., by writing reports geared to these audiences rather than to the academic community. More than one of the faculty members we interviewed indicated that they were so caught up in these kinds of activities that they found little time for their own research. They thus played an active role in the research community of the department, but not as productive researchers in their own right but rather as highly skilled academic support staff. Secondly, some of the centres organised around specific business interests in the region might also foster a type of applied research focus that might run counter to the goal of increasing publication in top journals. More on this below.
- A final concern regarding the research centres is that the management group seemed to have a rather different view on the importance of the research centres in comparison to the faculty. The management team downplayed the importance of the research centres, whereas the faculty representatives described them as very important and seemed unable to talk about research activities without constantly referring back to the research centres. It is unclear to us why these views diverge, but it is probably good to align the two views and carefully consider what role(s) the centres should be allowed to play in shaping the future of the department.
- Collaborations with other HEIs in Sweden also seemed to be largely organised through centres of various kinds. This appeared to be a well-functioning system that also gave the PhD students in some of the subfields a broader base from which to take PhD-courses and attend seminars.

Strengths – Visiting Professor Programme

- One of the key tools used to network internationally is the Visiting Professor Programme (VPP). This is an impressive strategic effort to connect high-profile international professors to the department. The VPP was brought up by all the different sub-units and the PhD students as something that really strengthened the academic environment. It appears to be a good idea to seek to find permanent funding for the VPP programme, as suggested.

Weaknesses – Visiting Professor Programme

- We could, however, discern a certain risk in connection to the VPP as it appeared that nearly all questions connected to internationalisation were answered by reference to the visiting professors; they were providing networks, access to high-profile editors of journals, gateways into interesting research environments at top HEIs around the world, etc. There is nothing inherently wrong with this, but if the department truly aspires to be the kind of elite academic institution they set out to be, the goal cannot be to only seek permanent funding for the VPP but instead to foster the kind of academics who themselves are being invited as visiting professors elsewhere. The goal must be to have a research environment that stands firmly on its own, with the visiting professors as ad-

ditional flavouring to an already savoury mix. In that spirit, the VPP must be seen more as a means to an end than as an end in itself.

Weaknesses – International Exchange Programmes

- The department also has a large number of international exchange programmes, but they appear to be mostly teaching-oriented. While being widely connected to the outside world, a high number of exchange programmes has no value in itself. Perhaps it could be worthwhile to consider building stronger more all-encompassing relationships with a smaller number of HEIs where collaborations can go beyond teaching. The fact that the department has a rather weak track-record concerning e.g., the larger EU programmes indicates that there are rather few solid and long-lasting cooperation/networks with European universities/researchers.

Recommendations

- Make sure that the research centres do not crowd out other types of research and that their management does not consume too many resources that could otherwise be spent on more productive research endeavours.
- Reflect further on the potentials for complementarities with the rest of the university. This currently mostly seems like a residual for those not connected to the formalised research centres?
- Carefully contemplate what can be done to ensure that the visiting professors contribute positively to the research environment even when they are not around.
- Reduce the number of exchange programmes and aim for strategic ones and quality. Engage more and deeper in European cooperation/networks for creating platforms for EU grants.
- It is indicated that the department plans to look over the extensive formal collaborations (p. 27 in the self-evaluation report). This seems like a good idea since it currently appears to be overly extensive and most likely yields various hidden costs in terms of time, energy and money.

C1.2 Collaboration with external stakeholders

Strengths

- The department has a strong tradition of collaboration with local society and industry, not least indicated by the willingness of these entities to fund various research activities at the department. These collaborations both contribute ideas for relevant research problems that directly address relevant issues in the external world, and help give access to various types of data. During our interviews with the faculty, the close relationship to external stakeholders – corporations as well as other types of organisations – was frequently brought up as something that gave the research task an intrinsic motivation.

Weaknesses

- While the collaborations with external stakeholders yields financial benefits,

facilitates research, and motivates faculty, there are nevertheless some problematic issues. There are potential drawbacks to these extensive connections with external stakeholders in that there is a risk of channelling research activities in a more applied direction. If the department truly aims to foster a complete academic environment where publishing in top-tier publications is the norm, this probably can only happen at the expense of less focus on these more applied research projects. A similar argument can be brought up in connection to funding. The research support and funding provided by more local stakeholders can be seen as relatively low hanging fruit. It makes sense in the short run to use these resources, but it directs attention away from the more prestigious types of funding that have the potential to foster a research environment that focuses on the type of more abstract theoretical issues that typically gets published in top-tier publications.

Recommendations

- Keep fostering fruitful collaborations with external stakeholders...
- ...but carefully monitor that these activities do not crowd out other research activities that might yield higher returns in the long run.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- It is clear that the focus on research centres has led the department to conducting research that is relevant for the world outside academia and that has the potential to impact society. There seems to be principles in place that allow for the transfer of research findings to external stakeholders, for example through seminars and workshops. Both outreach and the third mission are clearly stated in the strategy documents and responsibility is placed on all faculty to engage in these activities.

Weaknesses

- While these types of activities are given prominence, in practice, no specific time is allocated for them and there is thereby a risk of crowding out research and teaching activities. As mentioned above in reference to C1.1 and C1.2 there is a risk that the focus on research geared towards stakeholders close to the department, and thus of a more applied nature, stands in the way of the more “high theory” type of research that tends to get published in top-tier journals, in which the department is striving to publish more.

Recommendations

- Overall the department is doing a good job when it comes to conducting research that has relevance and impact on society, so there is no need to change too much.

C2.2 Research relevance and impact on society

Strengths

- It is clearly a strength that the department has effective links and collaborative spaces with key actors in the surrounding society, notably larger private and public sector organisations via the research centres. These provide opportunities for ongoing dialogues on matters of concern and interest ‘in the field’ that can provide an important input and inspiration for new research projects. Moreover, such links can also simplify the challenges of gaining access to conducting empirical work, both for senior researchers engaged in larger projects and master’s students. In some cases, the work of the centres can open up possibilities for additional external funding. The relative success of the centres is testified by the fact that the lifespan of the centres is not infrequently extended when they are evaluated.

Weaknesses

- On the other hand, a clear weakness is that the notion of societal impact is not clearly defined. Moreover, collaboration is not an end in itself and neither can it be equated with impact. Whilst there are certainly measures in place to recognise scientific impact in the department’s incentive structures for faculty, these are less clear-cut for practitioner and policy impact.

Recommendations

- The department might usefully consider carefully examining the literature on societal impact internationally with a view to agreeing a definition of the term and how it might be put into practice. This isn’t easy as there is no single accepted definition of the term. Moreover, it is generally accepted that the mere diffusion of new knowledge (from research) is insufficient as an indicator of impact. Genuine societal impact is usually understood as actual change in society in some format. The difficulty here is that such change can often take many years to materialise and not be evident within the timeframe of a research project or even the next research evaluation or accreditation exercise. It may be more realistic therefore for the school to talk about potential impact of research outputs – on both practice and policy – as well as the pathways and mechanisms for achieving it. This can be judged alongside scientific impact which is easier to assess through for example journal rankings and citations.

C3. Research-teaching linkages

C3.1 Undergraduate and master’s education

Strengths

- There is a good mix of broad, rather generic, undergraduate education and more specialised master’s education at the department. As covered in other areas of this report, the organisation of the department is largely dependent on an educational logic. While this has potential negative effects for research, it clearly puts education in the spotlight and serves to channel researchers into

the classroom. The ambition to conduct research in the areas that are taught is commendable, at least at the master's level.

Weaknesses

- Since the focus of this report is to assess the research environment of the department, we want to note that there is currently a lot of focus on rather generic undergraduate education. It is hard to discern a specific USP of this education vis-à-vis other actors in the region. While we realise that there might be plenty of tie-in effects that make it hard to change this, we want to raise the issue that a larger focus on more ambitious master's education might foster an even stronger research environment at the department. In essence, we want to raise the question of how to reconcile the focus on broad generic professional education with the focus on top research?
- Another potential weakness concerns the ambition to conduct research in all areas that are taught. This seems untenable (and unnecessary) for the more generic undergraduate education. Surely a skilled assistant or associate professor can teach the more basic elements of their subject without necessarily conducting research in the area? There seems to be a potential tension between the focus on conducting interesting research and giving education with a high industrial relevance.
- If the promise to research all areas that are taught is to be taken seriously, one has to wonder how this can possibly be reconciled with the individual researchers' freedom to research any area that they find interesting and relevant? At some point the management will either have to influence researchers to research areas relevant for education, or the education will become rather fragmented. Neither of these positions are particularly attractive.

Recommendations

- Don't take the mantra of research-oriented teaching too far. It is a nice concept and ambition, but should remain at that level.

C3.2 Doctoral education

Strengths

- The impression from both the supplied documents and the interview with the PhD students suggests that doctoral education is functioning quite well. All formal documents and plans seem to be in place and updated, and the organisation of the PhD programme is clearly documented. Extensive resources are allocated for leadership and administration of the PhD programme. The decision to take in PhD students every other year to get a critical mass seems appropriate.
- The PhD students who felt that they had a strong connection to a research centre expressed that this enriched their PhD student experience.

Weaknesses

- The allocation of faculty funded PhD students across the different sub-units was not described as a problem, but one could easily foresee a future in which power

dynamics between the different sub-units shifts and the consensus of who gets to hire is shifted. The resources used to run the PhD programme seem rather extensive in comparison to other departments with equally sized programmes.

- There is a lack of systematic effort to handle the stress of finishing one's PhD education on time.

Recommendations

- Have a system for which sub-units get to hire faculty-funded PhD students. As more faculty aim to be promoted to higher positions, getting access to supervising PhD students will become a scarce resource and the culture of happy co-existence might come to an end.
- Have a strategy for how much in terms of resources to use on this level. Is it, for example, possible to allocate resources to, instead, hiring postdocs who would likely yield more publications of a higher quality?
- Consider whether the administrator for the PhD programme could also be given some other research-related administrative tasks, perhaps lifting some weight off the shoulders of the researchers currently administrating the research centres.
- Consider a more systematic strategy for placing freshly minted PhDs in attractive job positions. If the department wants to be recognized as an important research institution these things matter.
- Proactively handle the issue of stress amongst PhD students, e.g., by using a service like <https://finishontime.se/>

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The interviews corroborate the impression from the self-evaluation report that the department has taken large and important strides towards becoming more research-oriented overall. Management tools – such as the salary criteria and the allocation of “*forskning i tjänst*” – seem to play a role in fostering an environment wherein research is a natural part of the conversation amongst the faculty. Many pointed towards the seminars at the centre and sub-unit level as important in fostering an active research environment. The visiting professors were also singled out as important in nurturing a work environment in which research has a natural and important place.

Weaknesses

- Being research focused with ambitions to publish in top-tier journals, or at least in publications appearing on various lists such as Cristin and AJG, bringing home research grants, being involved in an international research community, etc., inevitably leads to a stressful work environment; it is crowded at the top

and everyone cannot succeed. A consequence of this is that some academic staff will inevitably be left behind as they are less successful in playing the game of publish or perish. We detected an unwillingness to even discuss this issue and acknowledge that there are winners and losers in this change from being teaching-oriented to being research-oriented. The department is still organised around teaching and some academic staff will have to do a lot more heavy lifting on the basic, more generic courses. This is likely to create an A and B team where the A team gets to hold research-oriented courses on the master's level and the B team holds more generic courses on the undergraduate level. This division was brought up from time to time.

- The focus on research output also creates a stressful environment where many potentially suffer from feelings of inadequacy. Even the ones who are relatively successful.

Recommendations

- Acknowledge that the focus on high-level research creates new hierarchies within the department and proactively work on smoothing out the differences between the different groups.
- Look over the salary criteria to see whether they need to be fine-tuned to fit an organisation where some scholars are excelling and performing at a level that is yet not recognised-and rewarded-by the salary criteria.

D2. Publication

D2.1 Publication strategy

Strengths

- The publication data reported in the self-evaluation report shows a relatively strong publication record and a distinct positive trend, both in terms of total number of publications and in terms of the “quality” of the publications as measured by journal rankings from Cristin and AJG. The number of citations is also increasing, which indicates that the research is getting noticed. The “publication guarantee” instigated by the department to cover costs in relation to publication is a good idea.

Weaknesses

- In the self-evaluation report, in the salary criteria, and in all the conversations we had with academic staff during the interviews, it is clear that journal rankings play an important role at the department. At the same time, lip service is paid to the idea of the publication strategy having to be “*inclusive and support publications also in other outlets*” (p.34 of the self-evaluation report). While this is a nice idea, you really cannot have it both ways and currently it appears that the true spirit of the department is to focus solely on publications in journals that appear high on various ranking lists. We see tendencies towards journal ranking fetishism, described by Hugh Willmot in “Journal List Fetishism and the perversion of scholarship: reactivity and the ABS list” (Organization, Vol. 18:4, 429–442) as “*A monoculture is fostered in which a preoccupation with*

shoehorning research into a form prized by elite, US-oriented journals overrides a concern to maintain and enrich the diversity of topics, the range of methods and the plurality of perspectives engaged in business and management research.” While this might be a strategy that is rewarded by e.g., organisations that reward accreditations, it is not necessarily a strategy that fosters a truly intellectual environment.

Recommendations

- Go easy on fetishising journal rankings and the strict criteria for salary evaluation. Leave some room for actually looking at quality and for the unexpected.

D2.2 Analysis of bibliometric data

Strengths

- The bibliometric data presented in section D2 of the self-evaluation report shows a department with a reasonably high level of production but without any noticeable increase in production since 2013. The production in 2017 showed a significant jump compared with previous years (tables 2 and 3). It is not clear whether this is indicative of an upward trend or a one-off occurrence.

Weaknesses

- See D2.1.

Recommendations

- It is not possible to make any assessment of research productivity from the data presented in the self-evaluation report, for example hours spent per faculty member on one publication. Work to generate data on this together with more calibrated data on publications and citations across the sub-units might facilitate some more meaningful internal and external benchmarking processes on research quality to animate dialogue and reflection in the department on research performance.

D3. Facilities and research infrastructure

Strengths

- The key elements of the infrastructure needed to engage in high-quality research – such as access to computers, databases, etcetera – are in place and these issues were not brought up by any of the interview participants.

Recommendations

- No need to change anything.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The issue of unequal gender distribution at the department, especially at the more senior levels, was brought up during all our interviews. There is a good distribution of men and women in junior positions, especially in the PhD and postdoc positions. There were also some women in key administrative positions, such as section (sub-unit) head.
- After the RED10 evaluation, the department started measuring and monitoring issues related to gender equality, which is perhaps a first step towards finding solutions to the problems.
- The visiting professor programme was repeatedly highlighted as a positive factor that brought in strong female professors.

Weaknesses

- It is a major weakness of the department that so few women are found in more senior positions. While the department is not in any sense unique in this regard, and does not necessarily show more alarming numbers than many comparable academic institutions, it is nevertheless a serious issue that needs attention.
- Not only is there a lack of women in more senior academic positions, there is also an overwhelming majority of women in administrative positions. These types of gender structures could potentially reinforce a work culture where men “get the real work done” and women largely play supporting roles.

Recommendations

- Explore possibilities of hiring women in more senior academic positions, rather than only at junior levels and hoping that they will climb the career ladder and eventually even out the gender distribution.
- Rather than only measuring the gender distribution at different levels, try to find ways to figure out whether the processes themselves are gendered? One particular process to highlight in this regard is the promotion process, both to docent and to full professor.
- Consider a mentorship programme to help female scholars a) plan their careers in a way that will help them be promoted to higher levels, and b) write successful applications for promotion to higher levels.
- Closely monitor whether the salary incentive structures are compatible with the goal of having “equal pay”.
- Monitor whether the opportunity to be promoted to professor reinforces the current structures? Would it be possible to halt promotions and instead recruit professors when needed, and in those cases actively look for qualified women?

D4.2 Internationalisation

Strengths

- This area has largely been covered above in connection with Section C on

the Complete Academic Environment. All in all, the department seems to be well-connected internationally with lots of collaborations on different levels and more international recruitment. As indicated above, many of the exchange activities seemed to be oriented more towards teaching, but the visiting professor programme is an important exception that has brought highly acclaimed scholars into the department and shared their networks.

Weaknesses

- While it might be good to have a rich international environment and to be involved in many different types of collaborations with many different entities, there is also a risk of spreading too thin. Is it possible to nurture meaningful relationships with so many different stakeholders? Perhaps too much energy is put on sustaining these relationships at the expense of really getting something meaningful out of them.
- Many of the more basic courses are still taught in Swedish. Perhaps there is a risk of creating a division within the department where less qualified Swedish speaking staff teach these courses and the higher-level courses are earmarked for the more successful, international faculty?

Recommendations

- Look over the various internationalisation activities to make sure that they serve a purpose beyond themselves, or in other words, make sure that internationalisation serves as a means to becoming more research oriented and not as an end in itself.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- As stated in section D3 the key elements of the support infrastructure needed to engage in high-quality research are in place and these issues were not brought up by any of the interview participants.

Recommendations

- No need to change anything.

E2. Faculty and University-wide support

Strengths

- Here too our respondents did not voice concerns.

Recommendations

- No need to change anything.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

In many respects, this part of our report is superfluous given that responding specifically to the RED10 evaluation in 2010 has been an explicit input to the accreditation exercises that have been undertaken across the school since then. The specific measures taken in response to RED10 are set out on pages 45 and 46 of the self-evaluation report. These include increasing the number of publications in top ranked journals, formulating a clear research strategy, increasing the level of external funding, building a stronger research-based faculty, greater interdisciplinary and international collaborations and more work to promote gender equality. Reasonably persuasive measures have been undertaken in most of these areas although more could be done in others, for example gender. What is lacking, and what the department needs to address now, are follow-up routines for evaluating outcomes in each of these areas systematically.

F2. Other matters

Neither the self-evaluation report at the department level nor the report at the faculty level take up or problematise the question of the department or school brands and the links between these and basic questions of organisational identity. These it seems are rather more important in business schools than in other university faculties given that the business school sector is subject to greater levels of international competition and the pressure to seek accreditation is a clear manifestation of this. We got the impression that the notion of '*Handels*' as a brand is not strongly identified with at the departments of Law and Economics. Another interesting insight that was offered to us was that the brands of the respective research centres are stronger than that of the department. What are the implications of these issues for the Department of Business Administration? What is the role of the brand at the department? What is the connection between the research strategy and the brand?

CONCLUDING RECOMMENDATIONS

The Department of Business Administration at the University of Gothenburg is in many ways a commendable department that has taken many steps in the right direction since the last evaluation. The way the department is described in the self-evaluation report paints a very positive picture of an interesting and open workplace with a strong emphasis on research, teaching and public outreach. In addition, our overall impression from the self-evaluation, the site visit and additional provided material is that many of the severe problems reported in the RED10 evaluation (Department of Business and Department of Economic and Social Geography evaluated separately) have been addressed rather successfully. In particular, the section of Economic Geography seems so far to have benefited from being included in a new organisational setting.

Nevertheless, there are still areas that we believe the department needs to put more focus on in their ongoing work to strengthen its research profile. These areas or themes partly overlap each other or will have induced effects on a range of aspects/dimensions discussed in the self-evaluation report. However, these areas form the basis for our concluding recommendations on areas for further reflection by the department.

A first area concerns the current organisational structure and the way the leadership is organised and if it is also well suited for promoting excellence in research. This is mainly discussed under B1–B4.

A second main area is the development of research standing from a broader point of view. This is not an explicit attempt to provide a qualitative or quantitative assessment of research activities at the department per se but reflections about why a research-driven developmental trajectory is desirable and how to define such a development beyond parameters, such as where to publish, whom to cooperate with and the ability to attract external funds. What is the overall academic vision/rationale/role for transforming to a research-driven department? This is mainly discussed in section A2 and in the sections on academic culture (D1–D4).

A third area contains reflections on the relations between research-teaching and recruitment policies, and career structures at the departmental level and its sub units. This discussion touches upon the role of internationalisation, external recruitment, mobility and the possibility for attracting as well as retaining talent (B2, B3 and D4).

A fourth area is that of gender balance and how the department might work with this dimension in the transformation process towards a research-driven department. As different aspects of gender span over many dimensions in the evaluation, this is a recurring theme implicit in several sub-sections of the report even if space precludes a systematic treatment of the issue in each.

Finally, a fifth theme concentrates on the incentive structures at different levels at the school and department. The incentive structure and how it works have relevance for a variety of aspects in the evaluation and for that reason is discussed in several sub-sections of the report. We conclude that the ‘assigned research time’ is potentially effective in this regard (even though it wasn’t explicitly designed as such), the salary criteria less so. In the context of a research-driven academic department, time is a more potent currency than money when it comes to designing incentive structures.

DEPARTMENT OF ECONOMICS

950	Introductory Remarks
950	Section A – Background and Research Standing
950	A1. Background
950	A2. Research standing
951	Section B – Leadership
951	B1. Leadership
952	B2. Recruitment
953	B3. Career structure
953	B4. Funding
953	B5. Feedback and evaluation
954	Section C – Complete Academic Environment
954	C1. Collaboration
955	C2. Relevance and impact on society
956	C3. Research-teaching linkages
957	Section D – Academic Culture
957	D1. Academic culture
957	D2. Publication
958	D3. Facilities and research infrastructure
959	D4. Transverse perspectives
960	Section E – Support
960	E1. Internal research support
960	E2. Faculty and University-wide support
960	Section F – Other Matters
960	F1. RED10 evaluation
961	F2. Other matters
961	Concluding Recommendations

INTRODUCTORY REMARKS

The panel has reviewed the self-evaluation report of the department and held several meetings with different groups of the department during the RED19 site visit. We also held separate meetings with doctoral students and young researchers.

Our overall assessment of the Department of Economics is that it is a strong department that has improved substantially since RED10. The department has a deserved highly-recognised place within the Swedish academic environment.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

There are no formal divisions within the department. There are, however, some distinct fields of research and research groups. Core fields of research and teaching include: Behavioural and Experimental Economics, Development Economics, Environmental Economics, Financial Economics, Health Economics, and Labour and Applied Microeconomics. In addition, there are some smaller growing fields including Econometrics, Industrial Economics, and Theoretical Microeconomics.

The department leadership consists of a Head of Department, a Deputy Head, an Assistant Head and a Director of the PhD Programme. There is also a Department Advisory Council, which is a forum for dialogue and discussions about the activities of the department, and advisory to the Head of Department. The board represents all staff categories and typically meets six times per year.

The department hosts two centres; the Centre for Finance (CFF) and the Centre for Health Economics at the University of Gothenburg (CHEGU). In addition, individual researchers at the department are engaged in multidisciplinary research centres within the research initiatives labelled ‘UGOT Challenges’.

A2. Research standing

The current core research strengths are Behavioural Economics, Development Economics, Environmental Economics, Financial Economics, Health Economics, and Labour Economics. Other active fields of research in the department include Econometrics, Industrial Organisation and Theoretical Microeconomics.

In general, the research output of the department has improved considerably since RED10. The department is now an institution with a good international reputation in several areas. The Environmental Economics unit is one of the leading research groups in its field in Europe. We also note that the Labour Economics and Financial Economics groups have developed very strongly recently.

Following a period of rapid growth between 2011 and 2014, the department is now planning for a consolidation period with quality improvement as the main objective. There are no plans to make major expansions of the research groups in the near future, partly due to funding constraints. This seems reasonable to the panel, but there are reasons to consider the future development of some of the core research areas since there are large differences across groups.

In line with the School of Business, Economics and Law's strategy for 2017–2021, the department has a clear vision of becoming “*internationally respected as an excellent and progressive academic institution*”. The goal is to increase the number of publications in top general journals and top field journals. Other quality indicators include citations, placement of PhD students, attractiveness as an employer, and external research funding. The vision for the medium-term future is to improve on all these criteria. To the panel these sound as ambitious and sensible goals for the medium-term future.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- The department seems to have a very strong and functional leadership. Most processes and policies at the department level appear clear and sensible. Moreover, they seem well communicated within the department. It is the panel's impression that the department is well-managed and the many positive aspects to be found in the department, including the strong trend in research quality since RED10, also reflects a strong and high-performing management team.

B1.2 Faculty/University level leadership

Strengths

- The support for UGOT Challenges appears to have strengthened some of the pre-existing interdisciplinary work. The department is involved in the following four UGOT Challenges research centres: the Centre for Collective Action Research (CeCAR), the Centre for Antibiotic Resistance Research (CARE), the FRAM Centre for Future Chemical Risk Assessment and Management Strategies, and the Centre for Ageing and Health (AGECAP). These new centres seem not to have resulted in new substantial multidisciplinary projects, but have had a positive effect for a number of individuals already engaged in such projects.
- The Visiting Professors Programme (VPP) seems to have had strong positive effects for the department. The visiting professors have contributed to the improved research environment by stimulating new research and by collaborating with members of faculty.

Weaknesses

- The allocation mechanism for core funding of research across departments does not have support at the department. It is perceived that the allocation mechanism does not reward the progress of the department to a reasonable extent.
- The university-level ban on using (generous) stipends is severely hampering the possibility to have a larger PhD programme.
- The administrative process for recruitment is ill-equipped to handle large-scale international recruitment.
- The administration of the master's programme is physically separated from the department, which may partly create frictions and less flexibility.

Recommendations

- Secure funding for a permanent VPP and reconsider the scope of the programme. More flexibility in terms of visitor seniority and length of stay may be warranted. More junior rising stars may provide much more value for the research environment.
- Allow stipends at levels comparable to a salaried position for graduate students for at least part of their studies.
- Discuss a reform of recruitment procedures to better handle situations with large numbers of international applicants. Discuss new forms of involving external reviewers.
- Discuss ways to increase short-run flexibility in the master's programme to better utilise, for example, short-term visitors and the VPP.

B2. Recruitment

Strengths

- The department has, over the last five years or so, made a deliberate shift towards recruiting junior faculty in the international job market using Brownaldh scholarships. These recruitments have the flavour of tenure-track and are directed towards different research groups in different years. In combination with the recruitment of four new external senior professors, this seems to have had a strong positive effect on the research environment.

Weaknesses

- The recruitment processes for hiring teachers are, like in most Swedish universities, not well suited to handling international recruitment in the economics job market.
- Senior lecturer positions are felt to be difficult to recruit due to heavy teaching loads.

Recommendations

- Encourage the faculty/university to adapt recruitment processes.

B3. Career structure

Strengths

- The overall structure seems very clear and is well motivated. Promotion criteria for docent and professor levels are explicit. All researchers have annual performance reviews with the management, in which research, teaching and service to the department are discussed. There is also a mentorship programme for untenured faculty.

Weaknesses

- No obvious, but the structure is still very young and not really tested yet.

Recommendations

- The junior recruitment seems to be functioning well, but as these junior faculty approach the end of their term it may be worthwhile to more explicitly specify the minimum criteria for tenure.

B4. Funding

Strengths

- Researchers at the department have been very successful at attaining external research grants. The volume of externally-funded research has increased by 27% since 2014, while internally-funded research has declined by 10%. In addition to this, external scholarships from *Handelsbankernas forskningsstiftelse* (Browaldh) are funding an increasing number of junior faculty.

Weaknesses

- The increasing dependence on external funding may come at a risk of increased vulnerability.

Recommendations

- Reconsider incentives aimed at increasing external funding. Reducing OH on external grants from some sources is unlikely to affect the competitiveness of application and probably does not increase incentives for researchers more than marginally. This measure also does not square with the financial situation of the department.

B5. Feedback and evaluation

Strengths

- The department has a clear and sensible structure for feedback and evaluation. All researchers have yearly performance reviews with the management of the department where research is discussed. Research is also assessed during the “salary dialogue”. Promotion criteria are explicit and there is a mentorship programme for junior faculty. The department has an ambition to follow-up on placements of PhD candidates when they have finished their thesis and leave the department.

Recommendations

- Even with mentoring, feedback and evaluation systems in place, with a diverse staff there is still a risk that some aspects related to career and work environment are not covered.
- Clarify objectives and possibly demark the different feedback and evaluation systems, making sure that no key items are missing for the different employee categories.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- The department faculty is collaborating in several dimensions. Close to 60% of the total publications are co-authored with external researchers. Co-authorship in refereed journals is increasing. The growth in co-authorship can in part be attributed to a change in the way co-authorship affects the individual researcher's publication points. These written guidelines were revised in 2014 and gave more credit to co-authored work. In 2013 there were on average 3.0 authors per article and in 2017 there were 3.4 per article. In general, the articles involving out-of-department collaboration are in higher-ranked journals. Hence, this collaboration is productive as it seems to stimulate high-quality research. More than 75% of all refereed articles have at least one external co-author.
- The department benefits from the faculty's VPP, which allows the department to fund several prominent visiting professors. 7% of all refereed articles had one core staff author and one visiting professor among the authors and they were generally of high quality.
- The department has an active seminar scene with several seminars per week, and with at least one external visitor per week. Visitors generally also interact with the staff via scheduled meetings. The department is active in arranging workshops and has also hosted several large-scale conferences. Staff at all levels have the opportunity to spend time with research collaborators abroad and to regularly attend conferences. For junior faculty there is a particular funding scheme to fund external seminar participation.

Weaknesses

- The department mentions that it would like to see an expansion in transatlantic exchange. This is a sound ambition that we support.

Recommendations

- The VPP is essential for the department and they make good use of the funds. Continuation and, hopefully expansion, of the availability of these funds would be a good investment into quality of the research environment at the depart-

ment. It would not the least be essential for also attracting visitors from the US and Canada.

C1.2 Collaboration with external stakeholders

Strengths

- The department collaborates with a number of external stakeholders. This is in particular true for the finance group, via the Centre for Finance, and the Environmental Economics group.

Recommendations

- The department should look for possibilities to get involved in new partnerships / collaborations, but only to the extent that they contribute to the main strategic goals of the department.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- The department provides assistance with research communication. The department appreciates staff visibility and takes communication and outreach into account in salary adjustments. Most of the research communication is described as bottom-up and the initiative is left to the individual researchers.

Weaknesses

- We don't see particular weaknesses.

Recommendations

- In order to give more structure to all ongoing activities, it could be a valuable exercise to single out some focus areas. It could also be of value for the department to have a clear assessment of what it can achieve by communication, other than general visibility.

C2.2 Research relevance and impact on society

Strengths

- Many members of the staff are visible in media and in public debate. Participation varies and the degree of activity is up to each faculty member. The over-all activity is high and the visibility is good.

Recommendations

- It could be a good idea, already now, to think about possible ways of documenting research impact. Such cases could quite well be part of future evaluations or could appear on the agenda in other settings. Writing up a few would be a healthy exercise.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- Lecturing is for the most part carried out by active researchers and that is a clear virtue. The department is nevertheless working on further strengthening the links between research and teaching. Professors are getting increasingly involved in undergraduate courses in economics while most of the courses at master's level are taught by active researchers. There is a course on research methods in the economics master's programme. There are also "topics courses" where students are exposed to research articles that focus on a particular topic. Researchers who are experts in the relevant field teach the students how to understand and interpret the findings in these research articles.

Weaknesses

- Even though the situation has improved, there seems to be scope for even more flexibility in the master's programme.

Recommendations

- The master's programme is administered by the School of Graduate Studies. With more flexibility it would be possible for the department to let current research activities be visible in the course portfolio and curriculum. This would make it possible to draw on research from current projects or visiting staff.

C3.2 Doctoral education

Strengths

- Doctoral education is working very well. The department is making an impressive effort in supporting the candidates. The placement of job market candidates is concrete proof of that. After a recent report by the Swedish Higher Education Authority (UKÄ), several adjustments were made that improved the programme even further. The programme is conducive to generating high-quality research, due to both the research environment and the framework for following-up on students being excellent.

Weaknesses

- "Critical mass" was mentioned in UKÄ's report, and we think the current admittance of three students per year is a bit modest. We think it's a pity if such a good programme should not be run on a larger scale.

Recommendations

- The department could look into ways of financing more PhD candidates. One good way would be to allow for stipend financing of PhD students. Another possible way would be to use project financing to finance the research time of PhD students as a cost-sharing arrangement with the department.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The department has a strong academic culture with a clear and largely shared orientation towards research and international visibility in terms of academic outputs. This academic culture is reinforced by the existence of a systematic mentoring programme and yearly internal individual reviews. The department organises a weekly general research seminar with external speakers, mostly from abroad. Groups also organise field seminars, attended by the faculty and PhD students. PhD students have to regularly present the advancement of their research and have a chance to interact with the staff and with visiting researchers. In 2018, the department adopted a very useful “Code of Practice” for research integrity and ethics, and has implemented an ethical advisory group that is able to advise researchers on ethics for data management and for the conduct of experiments. The working environment seems collegial and inclusive. A lot of effort has been made to ensure gender equal opportunities. In 2019, a survey was conducted at the university level on gender diversity and equal opportunities, in which the department was able to include additional questions that will help identify the perceptions of the working environment.

Weaknesses

- There are no real weaknesses identified on this point.

Recommendations

- A recommendation would be to more precisely identify in each of the main fields of research which scientific strategy to develop in the future. The 2018 initiative of organising an internal strategy workshop focused on research is excellent and could be renewed on a more regular basis within each group.

D2. Publication

D2.1 Publication strategy

Strengths

- The department has a transparent strategy regarding the encouragement of researchers to publish in international journals. This is supported by the incentive structure that establishes an explicit link between publications in highly-ranked journals in the profession and promotions and core funding of research time. As a result, the achievements of the department in terms of quantity (72 articles published in 2017) and quality of publications are high and in progress. Papers are published in excellent journals in economics and finance. A high share of the department’s research activity is in open access publications (about one third). The department is transparent about the share of publications by visiting researchers.

Weaknesses

- The volume of publications is somewhat irregular across years but this may be due to the higher focus put on the quality of journals.

Recommendations

- The department should continue encouraging researchers to target excellence in publications, so that some are able to publish their research in top-five journals in economics and the share of level-2 journals continues to increase. The department should be supported at all levels to continue and possibly expand the VPP, in particular by inviting brilliant junior researchers who already show academic strengths and are willing to spend time on developing joint collaborations with members of the department.
- The department places more focus on the quality of journals rather than the quantity of publications. This sound strategy should be accounted for when the university allocates funds to the department.

D2.2 Analysis of bibliometric data

Strengths

- See above.

D3. Facilities and research infrastructure

Strengths

- The department has developed high-quality IT services, communication and information systems, and it co-finances the Finance Lab and the procurement of expensive financial databases.

Weaknesses

- Research infrastructure should be developed further, in particular by increasing the computer capacity for researchers and access to data infrastructure, and data registration should be facilitated.
- Another question mark is the absence of a laboratory for the conduct of economic experiments. The lack of computer lab facilities is problematic (although there is a Finance Lab in the department), while it would be important for the development of a visible and attractive research group in behavioural economics. There also seems to be a financial and administrative burden imposed on the gratification of each subject taking part in an experimental session.

Recommendations

- The department should, in collaboration with the faculty, investigate the need for increased computer capacity for researchers and to facilitate access to register data.
- Develop a strategic reflection with the group in behavioural economics on the future developments of this field at the faculty. The creation of a proper experimental laboratory with the recruitment of a lab manager should be discussed explicitly.

- Also, a revision of the administrative charges imposed on the gratification of the experimental subjects should be discussed at the university level.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- The department is conscious of the underrepresentation of female academics in economics and it has made progress in the recruitment of women economists at the junior level. A number of initiatives have been implemented, notably through the mentoring programme, to create a good and positive working atmosphere. The guidelines in the recruitment process include clear recommendations to adopt an equal opportunities perspective. The department follows the policy of the university and has recently conducted a survey to better understand gender differences in the perception of their work. In the yearly evaluation, researchers at the department have organised a “workshop for women in economics” during a national conference in economics.

Weaknesses

- There are only 22 women out of 72 members of the department. The imbalance is more striking at the Professor level since there is only 1 woman Professor compared to 13 men. A downside of the willingness to increase the representation of women in committees is that it may contribute to an increased administrative burden for them.

Recommendations

- The department should continue its efforts in increasing the share of women economists in positions where they are underrepresented.

D4.2 Internationalisation

Strengths

- The department is largely international and this has improved since RED10: it includes 32 international staff members out of 72, including visiting professors (this is less true for professors: 2/14, more so for senior lecturers 6/21). Positions are advertised in the international job market. Many PhD students come from foreign universities and all students are prepared for the competition of the international job market. The department has an active Placement Officer who arranges mock interviews and courses on how to apply to academic positions in the international job market. Internationalisation is also strong with regards to publications, participation in international conferences, a very positive visiting professor programme, and organisation of seminar series with a high share of international scholars. There is no sabbatical programme at the university, but the concentration of courses in a short amount of time allows researchers to organise research visits abroad relatively easily.

Weaknesses

- No weakness identified.

Recommendations

- Considering the success of these programmes in terms of academic achievements, networking and development of scientific collaborations, it would be profitable to encourage the development of the VPP.

SECTION E – SUPPORT**E1. Internal research support****Strengths**

- Researchers benefit from the support of the department’s administrative officers in building external funding applications. As discussed above, a Communications Officer helps with dissemination and outreach activities.

Weaknesses

- No weakness identified.

Recommendations

- No particular recommendation.

E2. Faculty and University-wide support**Strengths**

- The department’s researchers benefit from the support of the university’s Grants and Innovation Office regarding external funding and utilisation of research.

Weaknesses

- No weakness identified except those relative to the allocation of budget resources to the departments evoked earlier.

Recommendations

- The department’s researchers should consider, to a larger extent, making use of the services provided by the university to apply more frequently for EU grants, Marie Curie postdoc grants, and ERC grants.

SECTION F – OTHER MATTERS**F1. RED10 evaluation**

The overall assessment in RED10 was that “*Over the last decade, the Department of Economics has increased its international reputation in research, especially in*

the areas of environmental economics, development economics and behavioural economics, as evidenced by the quantity and quality of publications, the increasing flow of external grants, and the ability to attract good graduate students. Overall, some questions still exist regarding the role of the Centre for Finance, visiting professors, and how to address the gender imbalance.”

For the four categories: 1) Research quality, productivity, uniqueness and relevance; 2) Organisation and research infrastructure; 3) Collaboration and networks; and 4) Future plans, the characterisation was very good to excellent.

All the positive characteristics and qualities from RED10 are still true. From this starting position, the department has managed to improve on all parameters. With regards the few specific questions raised in RED10, the Centre for Finance is now a main asset of the department. The contribution of visiting professors is substantial, and the current concern after this round is continued financing. The gender balance has improved, and the department is working seriously on improving it, but progress is slow. Addressing the gender balance also requires relentless effort in the future.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

The panel's overall impression of the Department of Economics is very good. The Department has strengthened its position in most dimensions since RED10. Our final recommendations are therefore limited.

We encourage the ongoing work on securing funding for a permanent VPP. We also think that more flexibility in terms of visitor seniority and length of stay may be warranted.

Reconsider incentives aimed at increasing external funding. Reducing OH on external grants from some sources is unlikely to affect the competitiveness of applications and probably does not increase incentives for researchers more than marginally.

We encourage the department to consider scaling-up doctoral education. It runs a high-quality programme at a very small scale with three-to-five students admitted each year. We think it is a pity that such a good programme is not run on a larger scale. Here the faculty/university level could also help by lifting the ban on stipends at levels comparable to salaried positions.

DEPARTMENT OF ECONOMY AND SOCIETY

964	Introductory Remarks
964	Section A – Background and Research Standing
964	A1. Background
966	A2. Research standing
968	Section B – Leadership
968	B1. Leadership
969	B2. Recruitment
970	B3. Career structure
970	B4. Funding
971	B5. Feedback and evaluation
971	Section C – Complete Academic Environment
971	C1. Collaboration
973	C2. Relevance and impact on society
974	C3. Research-teaching linkages
975	Section D – Academic Culture
975	D1. Academic culture
976	D2. Publication
977	D3. Facilities and research infrastructure
978	D4. Transverse perspectives
979	Section E – Support
979	E1. Internal research support
979	E2. Faculty and University-wide support
980	Section F – Other Matters
980	F1. RED10 evaluation
981	F2. Other matters
981	Concluding Recommendations

INTRODUCTORY REMARKS

Introductory remarks about the work of the expert panel, for example comments on your work procedure.

1. Our panel of three experts started with email communication to calibrate our understanding of the task and the overall impression of the department for our assessment.
2. We wrote drafts of our own understanding of the department, which were sent to the chair, who made a joint document supplemented by a number of questions that had been raised during our respective assessments.
3. The chair sent the joint document back to the other panel members who provided feedback and made additional input.
4. At the Gothenburg meeting, the panel formulated a questionnaire organised in relation to the structure of the site visit at the department.
5. After the interviews and discussions with the department, the panel assessed strengths and weaknesses in the department and the challenges and recommendations that the panel wanted to give. The feedback to the department management was based on this preliminary assessment.
6. After the site visit in Gothenburg, the panel completed the report by a final editing of the text and recommendations.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

The Department of Economics and Society was founded in 2013 as a solution to the decision by the university management to reorganise the organisation to build departments of sufficient size. To ensure their independence and full-scale research and education up to doctoral level, three disciplines of equal size agreed to merge into one department as an alternative to being integrated as smaller units in larger departments. This decision seems to have been successful. They now work as one department, especially after the physical co-location of all staff at one address in 2015. The organisation ensures that each unit is involved in decision-making through the department management team. The fact that the department consists of three established disciplines has however given them a specific form of organisation in line with departments containing several disciplines both at the School of Business Economics and Law and at the University of Gothenburg (UGOT) generally.

The leadership, with a clear and typical organisation common within the academy, seems to be well-organised and in line with the department's specific structure. It is organised into three units: Economic History (EH) Human Geography (HG) and Innovation and Entrepreneurship (IIE). There is a management team consisting of leaders of the three units together with the department head. Administration of education and research is jointly managed. The research and research education

board, which is at departmental level, works in close contact with the three subject-specific sub-committees. Institutional guidelines regulate the formal relations between the different levels of decisions. This seems to work smoothly.

However, the multidisciplinary nature of the institution presents certain specific challenges. One is to balance the needs and conditions of the three different disciplines, as they entered the department with uneven conditions in terms of economy. Another challenge is to combine the formation of the department as a unit while at the same time developing internal excellence within each discipline. These challenges are handled in a professional manner through both formal and informal processes. The chosen strategy, with retained budget responsibility for each discipline, was a wise solution and also organised as a response to the RED10 evaluation. The unit managers work in line with, not in conflict with, the departmental leadership with the high ambition of ensuring and improving high-quality research. The department is multidisciplinary and endorses disciplinary development within the field rather than promoting an interdisciplinary approach.

Today, the department appears as a functional unit, satisfied and comfortable with its organisation and leadership. The three units take financial responsibility with great respect for each other's disciplines. It was a successful strategy to design transparent and formal guidelines for financing at the time of the formation of the department. An explanation for the flexible organisation seems to be the tactical decision not to require cooperation between the units, but to see them as complementary research areas within the common leadership. Collaboration between researchers has gradually increased organically across the units, which shows that it makes sense to belong to the same department and that cooperation is fruitful when it is based on the researchers' own interests. Collaborations have begun where researchers can find similar interests, as in a recently established bachelor's programme.

With the merger of the three disciplines, the department now has a reasonable size for providing adequate administrative support. At the same time, each unit is still a small and vulnerable academic environment and would benefit from becoming larger. This has been somewhat limited due to differences in the economic situation for the units when the department was constituted. The vision for research at the department is to preserve integrity and maintain and improve the quality of research and teaching. According to the self-evaluation and the site visit, the follow-up of this vision is dependent on additional block funding. The financial situation has improved and there are new recruits in the department, partly due to external funding. However, increased block funding is still seen as important for continuity.

The department has a Head of Department who seems to work in a collegial spirit, and unit managers and other education managers seem to be consistent. Nothing appears to relate to dissatisfaction with management. They are also quite satisfied with the university management and the faculty management.

The panel would like to recommend the department to preserve and secure its organisational model with continued respect for the unit's financial responsibility and cooperation where possible and efficient. At the same time, the panel wants to encourage the department to increase its efforts in identifying opportunities for integration. The small size of each discipline is a challenge and increased scientific cooperation would be useful in ensuring high quality. The panel would also like to recommend the department's leadership to formulate a "plan B" for how to fulfil the vision for research, even without additional block funding.

A2. Research standing

The department's strategy has been that the three units develop separate research, which is carried out within specific research groups. Collaborations have been focused outside the departments more than between the units. The research profiles are both relevant and convincing, with scientific relevance as the driving force. Research quality is evaluated internally through seminars and discussion groups. The department has used the professor programme (VPP) in a strategic and successful manner. The main focus of all units is to increase international peer-reviewed articles. In addition, it is also an ambition to be socially relevant and to give public and private stakeholders meaningful and useful research results. Some of these tasks are performed as secondary employment. One-third of the academic staff have reported such engagement. The researchers testified the need for joy in their work to achieve high quality and the department seems to be a pleasant and creative academic environment. At the same time, it is obvious that the improvements are the result of hard work on all units. It has not been created by itself.

As part of this multidisciplinary department, the unit Economic History (EH) is organised in two sections: Business History (BH) and Economic and Social History (ESH). The division into two sections seems appropriate and the daily relationship between them seems to be informal. The unit manager is part of the department management team. RED10 stated that EH (then a department) was moving in the right direction. Obviously, EH has continued on this track and improved its research even more. Since RED10, the number of peer-reviewed publications has increased considerably and commitment to international collaboration and projects has improved. The latter was considered a weak point in RED10, which stated that the unit has a potential to benefit from a greater involvement in international projects. This potential has not yet been fully utilised, but according to the self-evaluation and the interviews, the unit plans to increase its international involvement. The strategy is rooted in the unit's core issues and is judged by this and the unit's historical record since RED10. The plans seem sufficiently relevant and realistic. The research is undoubtedly on average in relation to economic historical research nationally and internationally. The unit is well aware that a generational change will take place in the short term (within 5 years). The medium-term visions are convincing. This is a unit that knows where it is going and, since RED10, has shown an ability to move towards its goal. The vision is to be excellent in research. The unit stresses that a lack of resources and the prohibited use of strategic stipends for PhDs are major deficiencies to this.

The Human Geography (HG) unit graduates students in human geography and geography to PhD level and has three subgroups for research: Mobility, Development Geography and Nature-Society in a Landscape perspective. All three have competent leadership and a growing critical mass for quality assurance. For HG as well as EH, the unit was a self-sufficient department during the RED10 evaluation. They received some serious criticism of their research. HG has since reoriented its research profiles to three specific topics that are central to geographical research. The publication is prominent in peer-reviewed journals of the highest quality, for example *Science*. The overall list of publications is impressive and shows a remarkable improvement since the RED10 evaluation. The unit has received grants from Swedish research funds to an increasing degree, which has enabled recruitment of both staff and doctoral students and guest researchers. Within the three research themes, the new projects that have started are relevant and promising. Some of the subjects have a fairly general focus. However, they can still provide new and innovative results. The research has now reached the standard to be on average in relation to geographical research nationally and internationally. The vision for the unit is to strengthen its international orientation, the interaction between research, education and stakeholders, strengthen the research group's structure, renew leadership and keep gender equality in mind. According to the interviews, the unit is working in this direction.

The IIE unit was initiated 10 years ago and is one of Sweden's largest. The unit is not divided into subsections but constitutes a productive and influential research group in line with the RED10 conclusions. RED10 assessed IIE as being very strong on all parameters and the unit has continued in the same way with an excellent publication record and by receiving large external grants. It has a strong publication culture and a clear strategy that includes publications in top journals as well as publication in different formats for a wide audience. The grants obtained (e.g. from the Swedish Foundation for Humanities and Social Sciences (RJ) and the Swedish Research Council (VR)) indicate that the unit is perceived as highly relevant to industry (main target for implementation of results) and high-performing in science. The unit's description on how to further develop its research profile shows an ambition to conduct relevant research for society and a clear vision of being leading in Europe in its research field. IIE has a relevant research profile in relation to societal development and its research on innovation is recognised in several organisations today. Plans for further development seem therefore relevant and convincing. The unit has a research standing well above average, and has developed into an intellectual hub in its research field. Its latest achievements in research funding is a strong sign of being capable of further development and its clear vision is both relevant and likely feasible to reach.

The panel finds the strategy of disciplinary focus relevant for the improvements within all units. This should, however, not prevent researchers from finding possible collaborations between units. This can be of specific significance in sustainable-oriented research. In order to live up to the ambition of not only being scientific but also societally relevant, sustainability issues are one of the largest

challenges in society today. Research by human geographers is to a large extent explicitly sustainable (in its broad sense). Here, there are prerequisites for creative collaboration with the other units where sustainability has been more indirect and implicit. This may turn out to be a fruitful collaboration area beyond administrative performance.

A second recommendation is to find ways to increase external funding, in order to reach the high vision of the department, and to use the Grants and Innovation Office's service to find new funding channels, national and international, especially those which accept doctorates as applicants.

The panel would also like to recommend all units to discuss the issue of the extent to which the new publishing policy may have changed research topics, and whether there is a risk that important scientific and societal topics are being dismissed.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

Strengths

- Taking into account the history of the three units (EH, HG, IIE) the successful merger into one department was premised on the policies that each unit was allowed to sustain its academic identity and that each unit produced its budget. Thereby the units have moved incrementally from different positions towards complementary coherence. “Organic” research cooperation across the units has subsequently been established from genuine academic interests. Pursuing informal legitimacy, the Head of Department has firmly supervised this development in a transparent manner. There is no evidence suggesting discontent with the Head of Department's leadership.
- The formal decision-making structure, as well as the system of quality assurance, is simple, clear and seemingly un-bureaucratic. Although the formal structure is hierarchical, the Department Management Team, consisting of the Head of Department and the three Unit Leaders, seems to operate in a balanced manner allowing for bottom-up processes. Focusing on research and research education the joint Research and PhD Education Committee is the most significant committee for sustaining a coherent department across the three units. The important aspect of recruiting staff and PhD positions is anchored in, and supported by, the sub-committees of the units. There seems to be no discontent with the decision-making structure, implying a well-functioning code of conduct, which respects the various identities of the units.

Weaknesses

- One impression is that the department behaves rather fatalistically toward the strategic decisions of the university levels above the department, by hoping for

changes in faculty resource allocation rather than including faculty resources in the departmental strategy. A strategy might include the role of leadership with regard to research and research quality, incentive structures, learning across units, resource transfers cross units.

Recommendations

- A departmental strategy stronger than now should allow for the department leadership to draw lessons across the units.
- Because the internal code of conduct seems to work smoothly and towards consensus, the leadership might strengthen the awareness of the department's strategy.

B1.2 Faculty/University level leadership

Strengths

- The self-evaluation provides no clear picture about strengths in faculty/university leadership. According to the site visit, the department seems to have a fruitful interaction with the faculty, and they seem satisfied with their coordination with faculty/university leadership. The faculty provides some relevant courses for PhD education, for instance on ethical questions.

Weaknesses

- The department is critical of the university's decision not to allow financing economic PhD:s by attractive stipends provided by banks and private enterprises.

Recommendations

- Encourage PhD students to take the ethical course provided by the faculty.
- Advertise the vision for research and the need for PhD funding to the faculty level to reach the strategic goals of the departments.
- Explain the consequences of not being able to use the attractive stipends for economic PhD students to the university management.

B2. Recruitment

Strengths

- The department's policy applies the meritocratic principle when recruiting faculty, which is the only principle that can assure academic quality in the long-run. The policy to recruit long-term guest researchers through the Visiting Professor Programme (VPP) provides additional academic strength, external perspectives and external networks to the department. Together with short-term guest researchers, this programme adds diversity and vividness to the academic environment.

Weaknesses

- Because three professors will retire within five years, a determined strategy of recruitment is needed, which must entail diversity issues, including gender

balance. Partly due to budget constraints the number of PhDs in each unit is low, and there is no faculty policy to ensure that the number of PhDs are above critical mass. There seems to be no policy to apply sabbaticals for permanent staff.

Recommendations

- Identify a balance between permanent and short-term staff among and across the units as part of an overall departmental recruitment strategy.
- The strategy should consider ways to strengthen the recruitment, cohesion and synergies in the PhD environment across the units.
- Continue to nominate international researchers for the VPP.

B3. Career structure

Strengths

- The department currently has a balanced gender structure among professors, guest professors and PhDs. The department leadership has a yearly “development conversation” with all staff and PhDs, which includes individual career plans. At PhD level, the department ensures sufficient skills training to enable PhDs to compete for a future academic career. PhDs tend to be involved in the processes of working out research project applications, and they are encouraged to participate in international conferences and networks.

Weaknesses

- The strong emphasis on research groups runs the risk of not supporting people in other areas than core areas. The department has few tenured professors as compared to externally funded faculty on temporary contracts.

Recommendations

- Develop a strategy to increase the ratio between tenured professors and temporary staff.
- Develop a strategy to let younger researchers spend time outside the research environment of the department.

B4. Funding

Strengths

- The funding structure varies quite significantly between the units, but regarded as a whole the department generates funding from a broad variety of external sources in addition to regular university sources. The block funding based on performance is quite good, where the pursuit of external funding has been successful.

Weaknesses

- All external funding derives from Swedish sources. While external funding is important and should be strategically pursued, both the permanent funding and staff might be too small to handle the growth of external funding.

Recommendations

- Elaborate, for strategic purposes, the role of external funding for the department's research and whether the size of permanent staff is sufficiently robust to allow the department to grow in terms of external funding.
- Elaborate whether, and possibly if, the department should pursue external funding from the European Research Council.

B5. Feedback and evaluation

Strengths

- The department has a consistent regime for continuous assessments of its operations on the department, unit and individual level, which is sufficiently transparent and seems to work well in terms of reaching and sustaining consensus. A regime for seminars on unit and project level indicates the existence of a robust research culture.

Weaknesses

- It seems that the feedback and evaluation regime is operating more vertically than horizontally. The many differences between the three units might allow for comparisons and possibly learning and emulation across the units. A notion of benchmarking seems to be absent in the feedback and evaluation regime, and the effect of the feedback and evaluation regime on department strategy is uncertain as well.

Recommendations

- Elaborate how the feedback and evaluation regime might be strengthened in order to support a consistent departmental strategy and a sustained and increased research quality.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Strengths

- Collaboration with universities outside of the university and the department is impressive, embodied in a number of ways: interdisciplinary cooperation, conference hosting, joint research proposals and guest-research exchanges. All three units have extensive national and international collaboration in different networks of researchers, specifically outside the university and on an international level. The VPP, financed and directed by the School of Business, Economics and Law, is successfully deployed at all units of the department, and it contributes very well to new ideas in research, new applications for funding and joint publication.

Weaknesses

- The self-evaluation and interviews revealed less collaboration within the university, which however, might be rational but at least could be reflected upon. Few efforts are directed towards ERC funding, which is partly explained by experiences of low efficiency of such funding (in terms of effort related to outcome in e.g. publications).
- An increase in publications is not reflected.

Recommendations

- Consider a strategic initiative for an international ERC-funded research project, especially in relation to a possible trend that more research funding will be directed through this channel.
- Consider if the positive trend in publications can be increased further with collaboration and co-authorship within the department.

C1.2 Collaboration with external stakeholders

Strengths

- The department has a clear standing among Swedish funding institutions, with well-established collaboration with external stakeholders at project level. IIE has a well-established collaboration with a number of industrial partners and its staff are frequently contacted as experts in innovation and entrepreneurship. This is illustrated in both the unit's research and its advanced-level education – numerous master's theses are conducted with industrial stakeholders. HG also has a wide network of external stakeholders, seen in research collaborations and in education. Their networks also include public stakeholders such as municipalities, county councils and other public organisations such as governmental authorities. The department thus spans a large range of stakeholders in society. EH has comparatively fewer collaborations with external stakeholders (however, there are several examples of this in their activities), though it does represent an area where such collaborations are less common. The department's collaboration with external stakeholders is important for attaining research funding, for their empirical research and for impact on society.

Weaknesses

- The self-evaluation was rather weak in bringing clarity to this issue. However, the interviews revealed a clearer picture. The self-evaluation possibly reveals a low emphasis on this, which we believe is a drawback from societally-important research.

Recommendations

- Put an emphasis on communicating important collaboration with external stakeholders, in order to strengthen the role of the university in society and in the development of society.
- The EH unit can be bolder in describing their role in societal development in order to strengthen their collaboration with external stakeholders.

- Identify opportunities for internal teamwork in relation to each unit's collaboration with external stakeholders, where the units can benefit more from each other.

C2. Relevance and impact on society

C2.1 Management and support

Strengths

- The department's interaction with societal stakeholders is decentralised; managing this effectively from within research units and based on research projects.

Weaknesses

- There is no established way to evaluate this effort and activity. Some individuals perceive the interaction with external stakeholders to be of less importance as it is not seen as an academic merit or measured in performance of individuals. There is a possible risk in the project-based interaction with stakeholders if it becomes dependant on specific individuals.

Recommendations

- Consider further the possibility to join forces between the different units within the department in this matter. There is e.g. an unexploited potential for interactions also relating to economic history.
- Establish a model for evaluation of interaction with external stakeholders and express priorities of this within the department, preferably integrate it in career and salary discussions.
- Consider whether this aspect needs more attention, because political authorities and funding institutions are increasingly concerned with "impact on society".

C2.2 Research relevance and impact on society

Strengths

- The department covers a broad range of critical issues for society and its development, both relating to public organisations' matters and to those of industrial organisations. Issues of welfare is in focus since economic, ecological and social issues are encompassed in the activities of the department. Researchers at the department are active in public debates and there are large variations of forms and media for reaching stakeholders and society. For example, certain books have had large diffusion and researchers have engaged in concept developments that drive policy development and impact governmental agencies. The department's collaboration activities have seemingly a very high impact on society, having both high quality and concrete results in society. Writing text books for education is also a way to impact society when the students enter the labour market.

Weaknesses

- The units have various experience of direct impact on society and part of the faculty seems to not exploit the full potential of public dissemination of relevant research.

Recommendations

- The department should consider whether a joint strategy for research results dissemination is feasible in order to make it less person-dependant and to create even further impact.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

Strengths

- The department has an important contribution to teaching at both the basic and advanced levels at the university. The department's faculty embrace that education should be closely connected to state-of-art in their teaching areas and based also on research insights. They address that there is a strong nexus between research and teaching. The department has developed a course portfolio influenced by research projects, and teaching is also critical for a sound economic base at the department. Further, several employees at the department reported on the importance of teaching in order to implement research results.
- Recently they have designed a new bachelor's programme, which is a collaboration between EH, IIE, and HG. IIE has two highly-attractive master's programmes with close linkages to their own research and to external stakeholders. The units within the department collaborate efficiently when it comes to harmonising administrative procedures. Faculty roles within the departments include both research and teaching.

Weaknesses

- A weakness is that research can be difficult to fit in for full-time lecturers and some teachers do little research. Teaching and education have not been extensively evaluated and are only to a very small extent reflected upon in the self-evaluation. Pedagogical approaches in teaching are not described at all.

Recommendations

- Sustain focus on "research-based teaching" and allow master's students to participate in research projects through their master's thesis work.
- A general recommendation is to discuss teaching and pedagogical approaches in relation to input and output.

C3.2 Doctoral education

Strengths

- The execution of PhD education is centralised at the department, meaning that formal processes are harmonised and managed on the department level, including how the Individual Study Plan (ISP) is deployed. Also, important activities for a good research environment, such as academic seminars and courses for PhD students, are managed jointly in a very good manner. Regarding subjects and content, research education is decentralised and connected to each unit. The centralised formal processes lay a good ground for an efficient management

and quality assurance aligned to the Swedish Higher Education Authority directives for PhD education. The close connection of a PhD student to a specific unit guarantees high quality and stability in supervision and scientific milieu. The HG unit is an active part of the national PhD programme in Human and Economic Geography; the EH unit is also an active part of the national PhD programme in Economic History, further strengthening PhD education.

- Cross-unit collaboration regarding PhD education creates an important research environment for PhD students at the department. It also makes possible social activities that the research students find important for experience exchange and support.

Weaknesses

- Each respective unit is on the border of having too few PhD students for securing a good scientific environment.

Recommendations

- Sustain participation in the National Research Schools.
- Take good care and further develop cross-unit collaboration on research education.
- Consider the pros and cons of a different PhD thesis, monographs vs compilation and paper-based thesis.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

Strengths

- The department has an apparently strong academic culture, aware of the meritocratic system and with frequent research seminars. The department has clear and critical activities for building an academic environment with dialogue and continuous assessments as central parts. It holds seminars with invited guests, PhD assessment presentations, research committees and research groups and a scientifically traditional academic milieu with all the activities that are indicators of a successful environment. The department has an awareness of research ethical issues, and the formal equal opportunity guide is regulated by the university and coordinated by the faculty. This is also discussed throughout recruitment processes. It also holds discussions on equality and equal treatment that not only strives for balance in numbers, but also continuous formal and informal discussions about discrimination and attitudes.
- Units report very high ambitions of being top research environments. IIE stands out with its long history of very high performances and is seemingly capable of building an environment where young researchers and guests thrive in their research efforts, as well as delivering very good results. EH and HG have had an even steeper improvement curve since RED10, and also reveal creative and ambitious research environments.

- When meeting research units, a number of inspirational actions, as well as critical stand points are presented (e.g. how research students are assigned to take care of guests to ease also a research dialogue and that quality assurance is core of the dialogue occurring when papers in progress are discussed).

Weaknesses

- It is unclear to what extent the culture is open for alternative perspectives and new research focus, even if evaluation procedures are regular. The department does not have a gender equality/equal opportunity plan of its own. This is no longer a requirement from the university. However, a strategy for equality actions is still needed to secure improvement and insurance against harassment.

Recommendations

- Increase collaboration between the units in order to gain further competence in inspirational actions and critical stand points actions for PhD students.
- Carefully consider the many strengths of the creative culture and pay attention to possible risks as being too dependent on single individuals.

D2. Publication

D2.1 Publication strategy

Strengths

- The strategy is to publish broadly for various audiences, with a specific focus on international peer-reviewed publications in academic journals. Conference papers are also published, relating to the importance of being present in academic networks and in research communities. PhD students are for example encouraged to regularly present research at conferences. The publication strategy is explicitly expressed in guidelines for promotion and recruitment. Overall the department aims at a balance between different publication channels, with some differences between the units, also relating to where they were at RED10 and traditions relating to their different research areas. Clearly, all units have taken on a publication strategy that is well aligned to requirements within today's academic system and that seems very adequate for their development.
- Beside that all three units today have a very adequate publication strategy when it comes to forms and channels. They all illustrate how they have an active dialogue on the importance of publishing and how writing papers is also made possible through joint efforts and active support from more senior researchers.

Weaknesses

- Possibly the strong emphasis on journal papers will leave even less room for other kinds of publications, such as books and book chapters. Neglecting considering this actively may become a weakness.

Recommendations

- Continue the clear publication strategy and transfer it to actual actions for the researchers.

- Consider if actions have to be different depending on unit/area/researchers.

D2.2 Analysis of bibliometric data

Strengths

- The bibliometric data indicate a strong performance in terms of peer reviewed publications, and in particular an increase in level-2 publications, for the whole department. The number of journal papers and conference contributions has clearly increased between 2014 and 2017. There has also been a clear increase in open access papers. For each unit, the development over 2014–2017 differs in some ways: IIE has improved to a small extent, however from a very high level; EH has improved to a large extent also in level-2 publications; and HG has improved to a large extent but mainly in level-1 publications. This reveals different development curves, which mirror different starting points.
- EH and HG, following a strong critique in RED10, have made a remarkable change and today they are close followers to the high-performing IIE unit.
- The department has very strong female professors when it comes to publications, revealed by the staff publication data.

Weaknesses

- Book chapters are decreasing as a logical consequence of the increase in journal papers and conference contributions, and therefore is hardly a weakness. Monographs by senior researchers have also decreased. However, publication channels must still be actively discussed in order to secure all relevant channels, also in relation to preferred impact on non-academic target groups.

Recommendations

- Maintain attention on publication in top-ranked journals.
- Consider if the strong academic trend of the rather narrow focus on citation measurements may have negative effects on the research environment. Maintain a dialogue on individual driving forces for high-quality publications.

D3. Facilities and research infrastructure

Strengths

- The department is fairly well equipped with research infrastructure, including the GIS laboratory, quantitative population databases, i.e. GILDA, as well as an historical database. The department operates these in collaboration with other Swedish universities. The department wants to maintain and update the databases for its own research and to become an attractive research partner with external stakeholders. The infrastructure has triggered interdisciplinary research across the departmental units.

Weaknesses

- No obvious weaknesses but the department must secure long-term funding for infrastructure.

Recommendations

- Elaborate whether infrastructure carries a potential for historical big data projects, on which international projects might be developed.

D4. Transverse perspectives

D4.1 Equal opportunities and gender equality

Strengths

- Five of the seven professors are women, and in the PhD group women outnumber the men (nine women and five men). The visiting professors have been of both sexes, four out of 10 guest professors have been women. The department has both formal and informal awareness of the topic and an awareness of potential tension between meritocracy and gender equality.

Weaknesses

- The gender structure at the department also has some major imbalances. There is a significant overbalance of male senior lecturers. The self-evaluation stresses the meritocratic appointment criteria as an explanation. Other factors, such as tradition, informal and implicit debate and discussion can also be part of the bias. The situation varies quite considerably between units.
- Other equality issues are even more blurred in the strategy of the department.

Recommendations

- Critically assess if evaluation and assessment of individual merits are gender neutral and make sure that position announcements (for teachers and PhDs) are formulated in gender neutral ways.
- Investigate if there are obstacles and efforts for equality improvement, not just in a numerical sense but also regarding culture and climate. This also includes guidance to prevent harassment.
- Evaluate the gender effect of the new bachelor's programme.

D4.2 Internationalisation

Strengths

- The department has a clear ambition to relate to research worldwide and they have global networks. All units have made good use of the VPP provided by the faculty. This seems to have been a successful way of making international connections and of investing in long-term networks. According to the visiting professors themselves, the visits at ES have been beneficial for them as well and they have also spread information about the department outside of UGOT.

Weaknesses

- Less senior scholars do not seem to have strong international networks. There is no sabbatical programme at UGOT and the possibility for a longer stay abroad is not so visible.

Recommendations

- Encourage researchers to publish together with visiting professors.
- Investigate various offers for supporting international visits within and outside of the faculty and university.
- Develop a common narrative to market the department as an attractive scientific environment for both men and women when visiting international conferences and network meetings.

SECTION E – SUPPORT

E1. Internal research support

Strengths

- This is centralised at the department level and research staff do not spend time on administration. There is no indication that internal research support is insufficient.

Weaknesses

- There seem to be no obvious weaknesses.

Recommendations

- Since 2013 the department has increased from a total of 59.1 FTE to 64.1 FTE, i.e. five people. Administrative staff has increased from 6.5 FTE to 10.8 FTE, which almost covers the total increase in staff. Reflect upon the reasons for this growth and whether the structure of internal support is optimal with regard to research, research publication and research dissemination.

E2. Faculty and University-wide support

Strengths

- Support largely takes place at the department level, but the Grants and Innovation Office seems to operate well and be sufficiently large to support international funding applications and the implementation (and reporting) of internationally-funded research projects.

Weaknesses

- No obvious weaknesses.

Recommendations

- Elaborate how the Grants and Innovation Office could support the department in promoting international research applications, e.g. an ERC application.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

The RED10 evaluation was performed separately for the units. The merged department was constituted after the evaluation and was thus not evaluated in itself. Regardless of this, the department has encouraged all researchers to increase their international peer-review publications in high-quality journals and books with top-ranked publishers. However, the department in itself seems not to take concrete measures in order to achieve this, as research is the responsibility of the separate units.

All three units have taken the evaluation seriously and worked to implement the recommendations. RED10 found all units of a vulnerable size and recommended them to find interdisciplinary and collaborative research. The merger into one department was their solution. The interdisciplinary focus is however not so developed yet. When it comes to dissemination policy it is worth noticing that the trend towards more international publications had begun prior to RED10. Thus, the recommendations were largely a confirmation and encouragement to the ongoing process.

The general assessment of RED10 for the Department of Economic History was “good to very good” and the unit has now developed into “very good”. The unit was at that time in a transition phase in terms of publishing. The unit now has a functioning publication strategy and the results since RED10 show a commitment to reaching its goal. It has established a broad international network and its publication results in peer-reviewed channels is impressive. The unit has, as a recommendation from RED10, reduced the number of research areas and concentrated resources on two research groups: Economic and Social History, and Business History. According to the self-evaluation and the site visit, it is of importance for the unit to be open to new ideas. RED10 noticed an increasing emphasis on historical gender studies and environmental economic history that required greater institutional support in future research priorities. However, this orientation is more invisible in the research orientation today.

RED10 had some serious criticism regarding research quality at the Human Geography department at that time. The criticism concerned both the research quality (close to insufficient), organisation and research infrastructure, as well as collaboration and networks (assessed as poor on all aspects). RED10 also had doubts about future plans. The conclusion by the evaluators was that geography should be at the forefront of relevant contemporary research on socioeconomic impacts and environmental issues, but they saw little evidence of this type of development at the department. Our panel concludes that, since RED10, there has been an extensive reorganisation resulting in an increased research quality and research profile. One of the most important changes was that some economic geographers moved to the Business department and others formed their own unit within the ES department. There has also been a significant generational shift. The HG unit has

taken the criticism from RED10 seriously and has made major efforts to improve research. They have made changes to the organisation of research, concentrated the activities to the three thematic subgroups, increased international publication and identified future plans.

The HG unit is now well in line with research and collaboration at other human geography departments, in relation to its size. Their publication activity and international collaborations are impressive. They have managed to gain external funding, which has enabled employment of new faculty and PhD students. Research has been developed towards more theoretically-oriented research as a result of a reorientation towards international publication. RED10 did not provide much credit for the collaboration with external stakeholders that characterise part of human geography research at UGOT. One explanation may be that the discipline was judged from a tradition of science rather than of social science as the RED10 expert (which the unit notes) was a physical geographer.

IIE was already, in RED10, assessed as very high quality (very good and excellent) and has managed to maintain this situation and is still performing at a very high and excellent level. Since RED10 it has simplified its organisation when merged with the other units into the ES department. It has also secured long-term finance by developing MSc and PhD programmes and through increased external funding. The publication volume and citation rates have risen since RED10. The unit has received guest researchers from the VPP programme and from private donations and RJ.

The panel wants to reflect on the tendency in the RED10 assessment to downgrade research on Swedish conditions. There is a risk of too un-reflected change in research orientation. It is still relevant and meaningful to do research about Sweden and the surrounding region that UGOT is part of. The challenge is to make the empirical findings of interest to the international scientific community. The EH unit has responded to the criticism in this sense that the discipline will continue to have a Swedish focus, but with a development of a comparative perspective that includes non-Swedish studies. The panel finds this to be a good strategy.

F2. Other matters

As mentioned in RED10, there is a potential for interdisciplinary research between the units in the department (and even between the two EH research groups). This should probably be exploited if the department wants to initiate larger international projects, e.g. funded by the ERC.

CONCLUDING RECOMMENDATIONS

The panel would like to summarise the main recommendations as follow:

- *Economy*: All external research funding originates from Swedish sources. These are funds from the most renumbered and the success is impressive. However,

the panel recommends developing a strategy to provide funding from other sources and from the ERC. The Grants and Innovation Office can be supportive in such a strategy.

- *Recruitment:* A challenge for the department is the large share of professors that will retire over the next five years. The development of a strategic long-time plan is urgent.
- *Doctoral students:* It is a weakness and a challenge that the PhD students in the respective units are few. The panel recommends all researchers to include doctoral candidates in their applications for external funding, possible for most funds (except RJ). The panel also recommends all supervisors to use ISP strategically for doctoral education and make sure that the PhDs see them as an important tool for success. Another recommendation is to increase the ambition of developing more common courses for PhD education.
- *Dissemination:* The good progression of international publishing is a strength and the development within all units is something the department should be proud of. The panel recommends collectively elaborating the dissemination of research (in peer-reviewed research channels) and more general dissemination to the wider public in order to develop a dissemination strategy that targets dual aims of research: impact in academic society and in practice. Activities serving both these aims should be rewarded for faculty members.
- *Sustainability:* The sustainability aspect of research is both a strength and a weakness. It is explicit in HG but more implicit in the other units. The panel recommends the department to be more sustainable-aware, both in research and in the in-house work, and to develop this together with the faculty and the vice dean.
- *Equality:* The inequality among senior lecturers at the department is a weakness. The panel recommends allocating resources to invest and develop a plan to increase equality and thus utilise the expertise available at department and faculty level.
- *Internationalisation:* The panel recommends that the researchers apply for funding for visits abroad and to strategically use international networks to find places to visit. Important also is to continue nominating researchers for the VPP.
- *Future strategy:* It has been a strength that the units have maintained their own budgets and education, but it may also have prevented cooperation. The panel recommends that the department support, foster, and further develop initiatives that have begun concerning collaborations between units.

DEPARTMENT OF LAW

984	Introductory Remarks
985	Section A – Background and Research Standing
985	A1. Background
986	A2. Research standing
988	Section B – Leadership
988	B1. Leadership
991	B2. Recruitment
992	B3. Career structure
993	B4. Funding
994	B5. Feedback and evaluation
995	Section C – Complete Academic Environment
995	C1. Collaboration
997	C2. Relevance and impact on society
998	C3. Research-teaching linkages
1001	Section D – Academic Culture
1001	D1. Academic culture
1004	D2. Publication
1006	D3. Facilities and research infrastructure
1007	D4. Transverse perspectives
1010	Section E – Support
1010	E1. Internal research support
1010	E2. Faculty and University-wide support
1012	Section F – Other Matters
1012	F1. RED10 evaluation
1013	F2. Other matters
1013	Concluding Recommendations

INTRODUCTORY REMARKS

Prior to the site visit, the panel reviewed the background materials (staff-, financial- and bibliometric data) and the self-evaluation report and prepared a preliminary panel report. We conducted interviews with the department leadership and many of the academic staff of the department. We held a separate interview with some of the department's doctoral students. Our main findings can be summarised as the following:

- As an institution of legal scholarship, the Department of Law has responsibilities towards the legal profession, the legal system and society at large. It seems to be fulfilling these responsibilities to full satisfaction.
- The department is situated within the university's School of Business, Economics and Law (hereinafter the faculty). All in all, the department benefits from this organisation. However, the academic traditions in law and economics are very different, which makes it challenging for a legal academic environment to be assessed according to indicators developed mainly for the field of economics.
- The department remains highly innovative regarding its choice of research questions and research topics. Its publication profile resembles that of many European law faculties in that many of its publications are in national outlets, while some of the research is published in internationally recognised journals and books.
- Enhancing the quality and quantity of the department's research requires successfully solving the problem of dividing time between research and a heavy teaching burden. The problem is shared by most or all law faculties and departments in the Nordic area, and cannot be easily solved.
- The department has increased its success in attracting external funding through the period. However, the external research funding comes from private sources and public agencies, and to a small extent from important national and EU research funding organisations. The department should have higher ambitions of attracting funding from the EU, the Swedish Research Council and equivalent sources.
- The department has a working environment that in general seems open and inclusive.
- The department leadership is aware of the importance of a good and well-functioning leadership and is prepared to act accordingly.
- Following the advice given by the previous evaluation panel, the department made a considerable effort in strategic prioritisations. There is still a way to go, however, and the effects of the measures taken should be evaluated.
- The department has made use of its comparative advantages. The concrete output generated based on the department's research is quite extensive, targets a variety of stakeholders in society, and has considerable societal relevance.

REPORT: OBSERVATIONS AND ANALYSIS

SECTION A – BACKGROUND AND RESEARCH STANDING

A1. Background

Being one of the central training institutions for the legal profession in Sweden, the Department of Law has responsibilities towards the legal profession, the legal system and society at large. Legal research at a high academic level is essential for maintaining the rule of law and for developing rationality in law.

The Department of Law is part of the School of Business, Economics and Law at the University of Gothenburg (hereinafter “the department”). It is a relatively young department, which has undergone significant development and expansion over the last decades. Being part of a business school environment has to a certain extent shaped the profile of the department and influenced both its education and its research. In certain areas of research, there is natural synergy between law, business and economics studies, but many areas of legal research have much more in common with other fields of study. Over the years, cross-disciplinary cooperation with scholars outside the faculty has increased.

Since the previous research evaluation in 2010, the department has undergone a considerable expansion. The 2009 data for employed academic staff was 23.1 FTEs and 12 doctoral students. The equivalent number of academic staff in 2017 was 52.3 FTEs and 25.8 doctoral students. It is a remarkable development, which shows that the department has more than doubled its size, and is now the size of many Nordic law faculties.

The department forms a single unit led by a Head of Department and a management team, and the administrative staff is led by an administrative manager. There are working groups for management tasks. For research purposes, research and teaching personnel are divided into the following education-based thematic groups: private law (21 persons), public law (21), international law (20), legal theory and philosophy (18), tax law (nine), criminal law (seven), and procedural law (five). The division into groups includes both LLM and LLD programmes. The number of persons and their gender composition varies. Everybody is a member of at least one thematic group, but may be a member of several.

In addition, three ‘cutting-edge cross-disciplinary sectoral groups’ have been identified: The Ocean Group, the Social Sustainability Platform (SSP), and the Knowledge and Intellectual Resources Group. The Social Sustainability Group is the biggest in terms of persons (29), Knowledge and Intellectual Recourses (14) and Ocean Group (12) smaller.

The overall impression is that the current organisation is well suited to serve the purpose for which it is designed. At the same time, both the department management and the separate groups are aware that further work may be needed in order

to achieve an even more efficient structure to promote research activities. There are challenges that ought to be attended to.

The power to make decisions concerning legal research is mainly decentralised to the department and according to the faculty's strategy for 2017–2021, research priorities shall be based primarily on bottom-up processes. The faculty, however, is the primary level for negotiating financial contributions and for important decisions regarding recruitment, appointments and promotion of staff. The department thus has to take into account certain limitations when designing its research policies, which are not faced by independent law faculties.

The internal organisation into 10 research groups is a fairly recent phenomenon and should therefore be given time to settle. There are, however, signs that there is a need for a firmer organisation and leadership within some of the groups. At some point in the future the functioning of the thematic and sectorial groups should be evaluated.

A2. Research standing

The main task of legal research is to contribute to maintaining and increasing the rationality of law and legal regulation through academic studies, teaching and dialogue with the legal profession and other important societal actors. To this end, legal research must both keep track of developments in scientific thought and fields such as philosophy, psychology and social science, and developments in society.

The department's role in educating new generations of lawyers for the Swedish society ensures that the researchers of the department have competences in most central legal disciplines. There is, however, a tension experienced by all legal faculties between the drive for internationalisation and interdisciplinarity and the need to maintain research-based expertise in fields of national law. The department has put a high emphasis on internationalisation and interdisciplinarity in fields of law and society, but seems less organised on traditional national legal fields.

Following the advice given by the previous evaluation panel, the department has made a considerable effort to make strategic prioritisations. Based on its long-term strategy for 2012–2020 and the aim to create complete academic environments as the core foundation, the department is now, as mentioned, organised in seven thematic and three sectorial groups. The new organisation enables the department to better promote and visualise its research profiles. On an overall level, its research profile may perhaps seem less distinct, as it covers such general topics as societal changes and a capacity to induce reform. However, broken down to the level of the thematic and sectorial groups a clearer picture emerges.

It is not quite easy to get a clear picture of the more precise nature, core and boundaries of the 10 research groups. This is probably because researchers belong to several groups and that it is not possible to account for the degree to which they

are active in a particular group or which group they would themselves consider as their main base.

On a general level the department's aspiration for new research initiatives is promising and several of the research groups report applications for new interesting research projects that seem both relevant and realistic. There are also tentative plans for launching yet another sectoral research group.

Furthermore, the individual research groups' self-evaluations show that the crucial issue of identity is somewhat problematic for some of them. There are groups with a clear identity, for example the procedure law group. Others are still seeking for their identity. One such example is the private law group, which reports that it is still struggling to understand itself regarding, for example, structure, function and purpose. The public law group has identified a similar challenge because of the large number of people and the width of the area, or sub-areas, that its environment comprises. It is not possible to fully comprehend and keep up to date with developments in all the different areas.

The department has made use of its comparative advantages. One such advantage is the larger environment of which it is a part i.e. a regional hub for international trade and technology in the multicultural city of Gothenburg. Research in business, economics and law has shaped the profile of the faculty. Although the four departments have very different research traditions (see the faculty's self-evaluation report), their common interests serve as a solid ground for research in close collaboration with the surrounding society.

The department's plans for coping with future challenges are rather general and probably in line with those of most Nordic law departments and law faculties, i.e. expanding the number of staff and research applications, joining forces with other disciplines, and ramping up external communications. On a somewhat more concrete level, the department has plans to launch one or more sectoral groups, strengthen the thematic groups and develop a master's programme and further elective courses. There are also several examples of proposals for promising innovative research projects in the subgroups.

The previous evaluation of the department highlighted the theoretical and methodological reflection, curiosity, pluralism and multi- and interdisciplinarity, and the socially relevant research made there. The department remains highly innovative in developing new research questions and research topics. The publication profile resembles that of many European law faculties in that many or the majority of publications are in national outlets and some of the research is published in internationally recognised journals and books.

It is of course not possible to know exactly how things will develop in the medium-term future and to define in a more precise manner the future societal needs that would constitute the ground for relevant and successful research projects.

However, the research groups and their individual researchers show the necessary degree of curiosity, sensitivity and academic entrepreneurship to be well prepared to meet new challenges and to formulate their research questions and design their research projects accordingly.

SECTION B – LEADERSHIP

B1. Leadership

B1.1 Department leadership

As a result of the new university organisation put in place in 2013, the Head of Department received more power in a clear line organisation. Since then, increased power regarding finances, recruitment, education and research has been delegated to the Head of Department, who is supported by a management team and a number of consultative and advisory working committees. However, much of the power still remains with the faculty.

The Deputy Head of Department has the responsibility for research. The Research Committee (RC) is advisory to the deputy, and (via the deputy) to the Recruitment and Promotion Committee (LFN) at the faculty level. Administrative support is mainly provided by a Research Coordinator and a Director of Doctoral Studies.

Two issues in the self-evaluation stand out as crucial for the department leadership – distribution of assignments and gender equality. The department management has worked hard to form a sustainable and transparent agenda for division of labour. A major challenge is to deal with the heavy teaching load and administrative tasks in a manner that secures enough and continuous time for research. As far as gender equality is concerned, a survey from 2017 showed that there are some issues that need further attention. The questions asked in the survey related to gender equality and equal opportunity topics, but the answers give valuable information for the department leadership also in other regards. It is not possible to draw conclusions from the background materials provided to us on how the department leadership is perceived by the academic staff. In several of the interviews, support for the management strategy was expressed. (*“Although somewhat soft handed and cautious it is moving in the right direction”*).

Strengths

- The department leadership is well aware of the importance of a good and well-functioning leadership, and is prepared to act accordingly.
- Different models have been tried in order to find one that suits the department best.
- The model of having a Deputy Head with overall responsibility for the department’s research performance seems to function well.
- There are examples of some commendable initiatives, such as the gender mainstreaming report, appointed contact persons for the different research groups

and a general template for distribution of assignments and planning work for individual staff members.

- There are many competent researchers in the different groups who have taken on the role of academic leaders.
- It is a good initiative that contact persons have been appointed for each of the research groups.

Weaknesses

- Whilst it should be considered as a strength that a large fraction of the department's employees has been involved in management, it comes at a cost. Management assignments limit the time for research. It is a problem, in particular, that senior researchers (professors in particular) have been busy with leadership tasks outside their research groups.
- Academic leadership is not only about leadership at the department, faculty and university levels. It is also about leadership within the separate research groups, and about dealing with shaping and promoting the group's common identity as well as the interactions and dynamics between the members of the group. A distinction should also be made between administrative and academic leadership. The latter includes, among other things, an ability to articulate a clear research strategy for the group and to inspire the group members and to support them in their professional careers. Academic leadership could be further developed in some of the research groups.
- It is a problem that in groups where research commonalities are lacking, there seems to be neither formal nor academic leadership.
- It is also a weakness that some of the groups do not have full-time professors. A strong academic leadership is often a prerequisite for developing a common strategy for joint research projects, funding applications and a publication strategy. Some of the groups lack such strategies. There is also a need to further develop the forms for division of responsibilities within some of the groups.
- There is little information on how the system with contact persons should function and functions in practice, apart from the fact that the role of this person varies. It is thus not possible to fully assess the initiative's pros and cons.

Recommendations

- Offer training and support in academic leadership at all levels.
- Make sure that all the research groups have both formal and academic leadership.
- Clarify the role of the appointed contact persons for the research groups.

B1.2 Faculty/University level leadership

The university's policy for the future is to be an active force in the development of society and to benefit societal development with its research. The university governs primarily through its policy document Vision 2020 and by means of financial distributions to the faculties. Only a limited number of individual cases are decided at the university level.

The Department of Law is situated within the university's School of Business, Economics and Law (hereinafter the faculty). All in all, the department benefits from this organisation. However, being part of a business school can be challenging for the department in achieving and sustaining an identity as a school of law. It could also be a problem that the academic traditions in law and economics are very different, which makes it difficult for a legal academic environment to be assessed according to indicators developed mainly for the field of economics. It is not likely or even desirable that the differences in academic traditions will disappear in the near future, even though new approaches are adopted in law. The department has a focus on interdisciplinarity, and some of its activities benefit from a close contact with economics. However, it should be kept in mind that most of the activities have stronger relations to other disciplines, such as social sciences, humanities and to a certain extent even to natural sciences.

When it comes to faculty leadership in relation to the departments, the principle of subsidiarity prevails. There are, however, matters dealt with at the faculty level that have important implications for the department's research and research education. The Recruitment and Promotion Committee makes the necessary preparations for decisions for recruitments, promotions and appointments of academic staff and appointments of expert reviewers. The main tasks of the Preparatory Committee for Research and Research Education are to contribute to the faculty's quality management in research and research education issues, and to spread information and experience on these issues within the faculty. Based on the recommendations from these committees, important decisions are taken at the faculty level that may affect research at the department.

Although the principle of subsidiarity is to serve as one of the corner stones for the department's long-term strategy, its organisation and its research performance are dependent on the wider context of which it is a part. The department is thus dependent on good and smooth relations with the faculty. The background material and the interviews gave the impression that the department is in general satisfied with how it works, and there are examples of how the faculty leadership has been instrumental in promoting the department's research initiatives. The faculty also works jointly with the department and other law faculties and law departments in the country to increase funding for legal research.

There are occasionally different understandings across the departments and at the faculty level on matters, such as e.g. publication policies and criteria for distribution of funding. The new model for distribution of faculty funding seems e.g. to be more favourable to the department than the previous one, but the department still finds the distribution model to work to its disadvantage.

Strengths

- For the Department of Law, being part of a multidisciplinary faculty has brought new perspectives on research quality issues. In particular the department's guidelines for promotion and criteria for appointments have been reconsidered.

Weaknesses

- The identity of the department is difficult to assert as part of a business school.
- For weaknesses regarding the faculty leadership, see also Section E Support.

Recommendations

- Increased attention should be paid at the faculty level to research traditions in law and adherence to the department's special needs of support.

B2. Recruitment

The department has grown considerably during the assessment period. The department hired 79 individuals over the period. Most of these (47) are in research and teaching positions. Twenty-five of the recruitments were external in the sense that the new staff held LLMs from another university (17 from other Swedish universities and six from universities abroad; two of the recruited individuals are from the Swedish Courts). Doctoral students are included in the figure (79) of individuals hired during the period.

The recruitment processes follow formal requirements put in place for universities. Announcements are disseminated in both Swedish and English, thus reaching both international and national potential applicants. The department recruits researchers at several levels, from doctoral students to professors.

Furthermore, through the faculty's externally-funded international Visiting Professors Programme (hereinafter the VPP), the department has hosted eight visiting professors. The VPP has been a success and offers good openings for recruiting expertise needed at the department.

One goal of the recruitments is to promote research in all major disciplines of law and has been formed on the basis of connection to the thematic and sectoral groups. The aim is to have strong environments consisting of all levels of seniority within the groups as well as strength in numbers to conduct both research and teaching. On the other hand, it is important to recruit through an open and transparent process, without limiting the fields too narrowly, in order to secure an objective assessment of candidates based on their academic merits. To strengthen research, the strategic use of associate senior lecturers and postdoc positions with external funding can also be a way of building competence within the groups.

Internationalisation is encouraged. The department strives to also ensure internationalisation through an open recruitment process. It has had the opportunity to attract international scholars, especially within the framework of the VPP, postdoc positions and honorary doctors.

The department experienced significant expansion throughout the evaluated period, yet this trend cannot continue without more funding (internal and/or external). However, due to several upcoming retirements in the next 10 years, the department will recruit new staff to replace the retirees. One important objective

in this process would be to secure that all the research groups have at least one full professor. In this context the department, in cooperation with the faculty, should clarify its policy when it comes to appointments of full professors, i.e. promotion versus open calls.

Strengths

- Increased recruitments from other universities, nationally as well as internationally.
- The strategic use of external funding to recruit young scholars, such as associate lecturers and postdocs.
- The strategic use of the VPP to invite internationally-renowned senior scholars.

Weaknesses

- There does not seem to be a clear plan for recruitment based on an overview of the staff and the need to complement the department's strategy for teaching and research.

Recommendations

- The department should articulate its needs regarding future recruitments.
- A clear recruitment plan should be adopted.
- The faculty and the department should clarify their policy concerning appointments of full professors i.e. promotion versus open calls.

B3. Career structure

The main emphasis of the department's career support for researchers seems to be on international mobility. The department encourages all staff to take advantage of mobility opportunities and to apply for funding, internally and externally. As mentioned, some internal funding from the department is available for all researchers. Since most of the external financial possibilities require an application from the researcher, the department cannot ensure that financial assistance is provided. Therefore, equal opportunities are ensured, yet equal outcomes cannot be guaranteed.

Faculty and staff members are encouraged to participate in the leadership and competence development programmes provided by the university. Many department employees have held management positions during their employment. Additionally, 10–20 individuals/year have participated in various teaching courses and projects. Furthermore, the department has worked with implementing and developing university and faculty instructions for career advancements in order to facilitate the careers of researchers. The RC further assists researchers with constructive feedback on their applications for promotion.

Strengths

- The efforts made to implement and further develop university and faculty instructions for career advancements.

- Good opportunities for researchers to fulfil the requirement of management experience.

Weaknesses

- Apart from on international mobility, there seems to be no plan or activities to support researchers in the development of their career.

Recommendations

- One way to improve career possibilities within the department could be to have senior researchers mentor junior colleagues.
- Structured assistance with career planning for PhDs and young researchers inside and outside academia should be put in place.

B4. Funding

The department has gradually become quite successful in attracting external research funding. Since 2010, the department reports that it has enjoyed a period of strong financial performance, which has made it possible to recruit staff and allow for short-term strategic initiatives such as LLD recruitments. At the same time, the department cautions that the surplus accumulated in previous years is beginning to fade. There is currently a budget deficit and thus a need to attract increased funding. Several of the research groups also aim at becoming more active in their pursuit for external funding, especially joint applications for larger grants.

So far, the department's researchers have been successful in applying for funding primarily from private sources, government agencies etc. but less so from more prestigious sources such as the European Research Council, the Swedish Research Council (VR) and the Swedish Foundation for Humanities and Social Sciences (RJ). As for legal research, in general such applications involve methodological challenges. The department is therefore working on improving the success rate for applications by, amongst other things, supporting researchers in developing their presentation skills for the methodology part of their applications.

During the evaluated period, the share of funding from the faculty was approx. 75% for teaching and 25% for research. The importance of the LLM programme in building a strong and sustainable economy should not be underestimated. It is still the department's main funding resource and it has been the backbone of the department's finances since it was launched in 1991.

Strengths

- The department has gradually improved its capacity to attract external research funding successfully.

Weaknesses

- The external research funding comes from private sources and public agencies, and only to a little extent from important national and EU research funding organisations.

- The department finds the current model applied by the faculty for distribution of research funding to be disadvantageous even after recent adjustments. Some measures were taken and a new model was implemented in 2014. However, the model needs to be further tuned, taking into consideration the special prerequisites that apply to legal research when it comes to bibliometrics etc.

Recommendations

- Continue the good work on funding applications for larger interdisciplinary research projects in collaboration with researchers from outside the department.
- Have higher ambitions for attracting funding from EU funders, the Swedish Research Council and equivalent sources.

B5. Feedback and evaluation

Research environments and outcomes are assessed through annual research reports (since 2011) combined with individual staff appraisals. These reports provide a communication channel for research conducted at the department, both internally and externally. Researchers are continuously encouraged to update the faculty database with their current research and projects since the annual research reports are to be based on the content of this database when put in place. However, the system for extracting information for the reports from the database is not yet in place. Thus, the research report for 2017 has not yet been completed.

Individual researchers receive feedback through staff appraisals mentioned above. A general template is used to distribute assignments and planning work to individual staff members. This information, together with course budgets, is used in connection with the yearly staff appraisals. The appraisal process begins with a focus on teaching assignments, but other assignments such as research, competence development, management duties, administration and outreach are also considered. Every year there is a follow-up involving detailed reports on each staff member's work and contributions.

Legal scholarship has long been and continues to be assessed retrospectively by its own merits, rather than by publication channels and similar criteria. However, a peer-review process in advance (and not only in retrospect) bears with it the possibility to further improve quality. Whether the quality level is improving is subject to debate. One example of an advantage is the development of administrative support at the faculty level.

An element of assessment in advance has been introduced as part of the final examination for the doctoral degree. The examining committee shall assess whether the doctoral thesis is of sufficient quality to be presented at a public defence seminar. The committee's standpoint shall be motivated in writing. This order deviates from what is normal procedure at most other law departments and law faculties in Sweden. The comments made by the committee would be valuable feedback for the final version of the thesis and for the doctoral candidate in his or her future academic career.

The benchmarking in relation to the other disciplines at the faculty is complemented by benchmarking in relation to other law faculties in Sweden and also the other Nordic countries. The quality of research is discussed at national and Nordic dean meetings, not least in debates regarding the eligibility criteria for academic positions.

Strengths

- The current staff appraisal process gives feedback to individuals and research groups.

Weaknesses

- The faculty database of current research and projects does not yet support extraction from the system to a satisfying degree. Moreover, it is difficult to motivate individual researchers to always keep the database updated. There are probably many reasons for this, including that it is fairly time consuming and requires effort, and the benefits may not be obvious.

Recommendations

- Mentoring should be adopted within and across the different groups.
- The faculty database tool for delivering desired data should be implemented.
- Dialogues about teaching, research and other assignments should be conducted with the groups.
- Researchers who have supervisory responsibilities should meet several times a year to develop their supervisory skills and practices.

SECTION C – COMPLETE ACADEMIC ENVIRONMENT

C1. Collaboration

C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally

Collaboration in its various forms (formal, informal, co-creation) is presumed to be a key factor to success in terms of excellent research and is therefore highly valued at the department. Many of the department's core research activities are marked by strong collaborative elements. While collaborative strength and success can be found at both the individual level and in all thematic groups, the department encourages interdisciplinary and international research especially in its three sectoral groups.

University of Gothenburg (UGOT) has launched a number of strategic centres to support interdisciplinary research collaboration within the university. The department is and has been represented in several of these centres. Through these centres, active researchers also gain access to additional international and multidisciplinary networks. The Ocean Group, in particular, draws on the strong multidisciplinary marine research environment available in Gothenburg.

A large part of the department's comprehensive teaching assignment, particularly in public law, pertains to first-cycle courses within the large professional educational programmes at UGOT: the LLM programme, the bachelor's programme for Professional Degree in Social Work, the bachelor's programme in Human Resource Management and Labour Relations, and the School Leadership Training Programme. Although such engagements may have benefits, resources could perhaps be better used for teaching and research activities in the Department of Law.

Strengths

- Collaboration in several of the university's centres in support of interdisciplinary research.
- Collaboration with the multidisciplinary marine research environment in Gothenburg.

Weaknesses

- Resources are drawn from the department to teach elementary law to students in other departments.

Recommendations

- Reallocate teaching resources to use external teachers in the professional education of other departments in order to use academic staff for teaching in the Department of Law.

C1.2 Collaboration with external stakeholders

The department has always worked closely with external stakeholders, primarily in relation to education. Several of the department's research themes and research projects are initiated and further developed from collaboration with actors in this environment; e.g. the multi- and interdisciplinary research conducted in maritime law and ocean-related issues in the Ocean Group, and the research in intellectual property law and innovation in the Knowledge and Intellectual Resources Group. Another illustrative example of interaction between research and the surrounding society is the sectoral group focusing on social sustainability. Through its university-based law clinic *Rättspraktiken*, it has created a unique potential to initiate research and education based on dialogue and partnerships with entities outside academia. The law clinic cooperates with the city administration, human rights and other NGOs and other actors involved in social rights issues.

Rättspraktiken supports collaboration between education and research. The platform also creates a space for workshops, seminars and dialogues. It is well anchored in international CLE networks. After three years, the project was assessed by Professor Hanne Petersen (Copenhagen). Her positive assessment pointed to the mostly unexplored potential for future co-creative research collaborations, which led to the creation of the collaborative research projects mentioned above.

Strengths

- Development of new research areas such as the areas of work, housing, educa-

tion, social security, old age, migration, segregation, democracy and freedom of expression, commons and city planning through the activities of *Rättspraktiken*.

- The department has strong contacts and collaboration with regional economic actors.

Weaknesses

- All education-related activities are not systematically used for increased research outputs.

Recommendations

- The department should continue strengthening the use of its strong education-based forms of collaboration as a basis for ambitious research. Such interaction between teaching and research offers the possibility of making use of the teaching burden which tends to be unfavourable for research.

C2. Relevance and impact on society

C2.1 Management and support

The rationale for the importance of societal impact is consistent with the main task of a higher institution of legal learning; to participate in the legal profession in the wider sense and to contribute to the rationalisation of law and the legal process.

The department has great potential to impact the academic and professional fields by offering a variety of disciplines and perspectives to solve legal problems. One task of the thematic and sectoral groups is to impact society and thus to create relevant research for practitioners and decision-makers. Furthermore, the participation in the legislation process through Government committee reports and other reports and similar tasks as special advisors and experts provides opportunities for impact. The department coordinates the response process of committee reports. Since 2012, the department has responded to 32 such reports. There are researchers that provide expertise for international bodies such as OECD and WIPO.

Traditional legal scholarship in the form of textbooks to be used at legal settings also has a practical impact on society.

The *Rättspraktiken* activity, aiming at furthering social sustainability and better understanding of social welfare law, has potential for social relevance. The involvement of NGOs offers new cooperation possibilities.

As part of the department's strategy for supporting cooperation with society, it has an administrative system for allocating time for teachers' and researchers' various duties. Academic staff are expected to spend time on activities related to cooperation and relevance to society. There is some internal funding for researchers' presentations at conferences, debate panels etc.

Strengths

- The department has great potential to impact society.

- As part of the department's strategy for supporting cooperation with society, it has an administrative system where societal impact activities are acknowledged.

Weaknesses

- The department shows ambitions for social relevance in a variety of directions: international, national, regional and local. The diversity of goals poses problems for consistent policy building.

Recommendations

- The department should discuss a strategy for developing its combined societal impact.

C2.2 Research relevance and impact on society

The concrete output generated based on the department's research is quite extensive and targets a variety of stakeholders in society. All of the researchers and groups are active in different contexts, particularly towards regional actors (municipality of Gothenburg, NGOs, regional business (Maritime cluster, Volvo etc.), and research partners). Several of the department's teachers and researchers are actively involved in the judicial process as judges or experts. Other outputs consist of, for example, contributions to government and committee reports, assignments for public authorities and society at large including media.

Strengths

- Researchers are involved in a variety of activities, ranging from standard legal ones connected to the process of law preparation and legal interpretations that are relevant to the courts, to new types of social outreach and cooperation with economic actors. These activities have social relevance, and may have considerable social impact.

Weaknesses

- The variety of activities makes it difficult to formulate policies at the department level. The activities are largely built bottom-up, which may make it difficult to develop shared research aims.

Recommendations

- The department could consider further developing its strong regional impact through interaction with regional partners. The need for department-level guidelines might be considered.

C3. Research-teaching linkages

C3.1 Undergraduate and master's education

One of the problems facing law faculties and departments is that they tend to be bound by necessity to teach a number of subjects for master's programmes. The research output often reflects the sometimes parochial interests of the various legal subjects present in obligatory education, rather than new or interdisciplinary research interests. The current structure of the department is the result of

a process that took place during 2013–2017. It departs predominantly from the recommendations made by the 2010 research evaluation (hereinafter “RED10”) panel but also from the university’s policy document and its new organisation and discussions with the faculty. The aim of the new university organisation was to create a tighter and more efficient order for decisions and delegation and a clearer structure of leadership.

Most of the academic staff are both active researchers and teachers, which enables them to use research results in their teaching. Many researchers feel strongly about teaching and consider it an integral part of working in a university, i.e. teaching is equally important as research. Due to the large teaching assignment in law, teaching tends to have a defining influence over the identity and priorities of the research environment. Many have produced teaching materials (books and films). These materials are based on research results and research methodology and are used in the courses taught within the Law programme. This is emphasised in particular at the master’s level. The production of teaching materials strengthens the academic value of the education provided. There is a continuous and organised discussion about the quality of master’s theses, e.g. regarding topics, methods and processes, at grading conferences within the thematic groups.

Law education is related to the needs of the legal profession, which brings researchers into close contact with professional practices and the outside world. Courses and course sections have been developed in close collaboration with external stakeholders, such as law firms (at graduate level: the due diligence-case and the procedural moot court; at advanced level: tort and insurance law cases, the Business Lawyer course and the EU Moot Court). Increasingly, some of these collaborative networks have developed into interesting co-creative and co-development research collaborations. For example, the Tax Law Group is active in several networks and organisations. Another example is CIP Law with the event CIP FORUM. The law clinic *Rättspraktiken* is an important opening. It is the only of its kind in Sweden.

The strong emphasis on teaching is felt to limit time available for research. Lack of research time is seen as a serious obstacle to higher research output. Solutions for arranging time slots for research are needed. For longer research periods involving mobility, teaching internet-based courses could be a solution. Careful research planning may be helpful for finding weekly structures that allow time for research.

Strengths

- The practical focus of law education brings researchers in close contact with the legal profession and the outside world.
- Most of the academic staff are both active researchers and teachers, which enables them to use research results in their teaching.
- The law clinic *Rättspraktiken* sets a good example

Weaknesses

- Due to the large teaching assignment in law, teaching tends to have a defining influence over the identity and priorities within the research environment.

Recommendations

- A policy is needed to provide a time structure allowing reasonable time slots for research, both in weekly activities and for longer periods dedicated to research. Introducing more online teaching could be one way forward for providing longer research periods abroad.

C3.2 Doctoral education

Doctoral education is the major basis for forming young legal researchers. Therefore, the department has constantly been striving to increase the funding for possible doctoral recruitments and also for improving the quality, routines and procedures regarding doctoral education to enable them to reach their LLD. At the beginning of 2013 the department had 12 doctoral students and at the end of 2017 there were 26. During the period 13 dissertations were approved.

One doctoral student per year is financed through the internal budget. To achieve more funding for the LLD programme the department works strategically at the faculty level to increase internal funding, and encourages senior researchers to submit applications to external funders. Additionally, opportunities are sought from already committed foundations.

The admission of doctoral students takes place on the basis of the seven thematic groups. The positions are advertised nationally and internationally, enabling competition and internationalisation. The doctoral students are involved in the thematic groups by taking part in seminars and research collaborations with the other group members. They are also welcome and encouraged to take an active role in the different sectoral groups to further evolve their research environments and broaden their collaboration network within different settings.

The department has an educational programme consisting of a compulsory part (30 ECTS) and an elective part (30 ECTS). The elective part may be fulfilled by courses provided by other institutions and organisations.

The doctoral education includes collegial interaction, active participation and peer review. The doctoral students are required to present their ongoing work at four seminars held throughout their programme (4 years full-time). Within the elective courses the students are encouraged to participate at conferences and write articles. The 3-day Marstrand Seminar is held once a year. The seminar is open to all researchers to facilitate the sharing of critical comments and ideas for further collaborations.

The great variety of fields covered by the doctoral students poses a demand for teaching a variety of methods and theoretical approaches, which can be a challenge

to a small institution like the department. It is also important that all students be exposed to the broad field of methods and approaches in law as part of their compulsory training. The students might benefit from an opportunity to take part of their compulsory courses outside their home institution, when relevant courses are offered by other institutions. The department could consider entering into cooperation with other institutions in order to pool forces for a more cost-effective development of a researcher training programme. This could be a way of ensuring that the education offered to doctoral students is broad enough to cover the needs of candidates across the wide field of legal projects.

A new planned initiative is that the two directors of studies (for LLM and LLD programmes) will meet with the doctoral students to discuss their teaching activities.

Strengths

- The department has developed a more structured doctoral programme, and the students are well taken care of. Doctoral students interviewed by the panel considered the department to be inclusive and friendly.
- The teaching part of the doctoral position, which normally corresponds to 20% of full time, implies an obvious benefit for the career development of doctoral students.

Weaknesses

- The assignment and calculation of teaching obligations for doctoral students is unpredictable.
- It can be challenging for smaller thematic groups to take care of their doctoral students, especially if they lack senior members (associate professors and full professors).
- Theoretical and methodological courses that cover a broad field of relevant approaches is needed, but it is difficult to provide such broad selection with the department's own limited resources.

Recommendations

- The department should address the challenge of offering a wide enough scope of methodological and theoretical approaches in its organised doctoral training, for example by cooperating with other institutions in Sweden or abroad.
- A stronger input of senior researchers in some thematic groups should be provided, to allow academic leadership to develop.

SECTION D – ACADEMIC CULTURE

D1. Academic culture

The notion of a complete academic environment is the guiding star for the development of the university, explicated in the policy document *Vision 2020*. It is also adopted as the department's strategy. The concept refers to an environment including research, education and cooperation with society. Much has been achieved

since RED10, and all groups describe considerable improvements in their separate self-evaluations. Some groups report that they have made significant progress in setting up structures and research activities and they seem pleased with the progress that has been achieved. There still are a few issues of concern.

Judging from the department's self-evaluation report and the separate reports from the subgroups, the complete academic environment is also perceived by researchers as the overarching aim for the department's development. There are however significant differences regarding how close the separate groups are to reaching this fundamental goal. Furthermore, there seems to be some uncertainty as to the more exact meaning of this notion.

The more elaborated self-evaluations submitted by the research groups indicate that they are at different stages of development. Areas identified as distinct clusters of researchers in the RED10 report now constitute the core of many new research groups. Some of the groups show a high degree of self-confidence as to how the group is organised and as to common goals, whereas others express uncertainty concerning these criteria.

Furthermore, the degree of internationalisation varies among the groups. There are groups that describe themselves as more or less fully fledged actors in the international academic arena, whereas for example, the private law group considers itself to be influential nationally and in the Nordic region "... *although a tendency to internationalisation can be detected.*"

The groups' self-perception in regard to achieving the goal of becoming a complete academic environment also varies. For example, the legal theory and philosophy research group states that it is already a complete academic environment (Complete Legal Academic Environment Legal scholarship, CLAE-LS). Other groups seem to think that they have a long way to go and they even express some concern as to which path to choose to reach the goal.

Other challenges have to do with size and character of the group. The smaller groups are vulnerable to different challenges. For several of the groups, such as the international law group (although not small) and the criminal law group, the ambition is thus to grow in order to reach a sustainable size. On the contrary, the private law group, for example, reports having to cope with difficulties because of its large size. The fact that it is large and encompasses several sub-disciplines makes it difficult to find concrete research commonalities.

There is also some uncertainty as to how the concept of a complete academic environment should be understood. It is even contested whether the current organisation is an optimal way of organising a research environment.

Both formal and informal research seminars are held within and across the research groups. Frequent contributions to these seminars are made by the depart-

ment's VPP. This enables creativity through transverse perspectives as well as theoretical and methodological pluralism both internally within the groups and externally through invited guests. The thematic and sectoral groups have at their disposal monetary means to congregate at workshops, conferences and seminars. For example, the criminal and procedural law groups have created a 'writing-shop'. Collegiality is encouraged at all levels and supported by the weekly 'Wednesday fika'. Also, initiatives are taken to arrange a variety of social activities. The yearly Marstrand Seminar is also an important social event where staff meet up after the summer. All collegial activities are open to all researchers, regardless of level of employment.

It is not entirely easy to get a clear picture of the more precise nature, core and boundaries of the 10 research groups. This is probably because researchers belong to several groups and that it is not possible to account for the degree to which they are active in a particular group or which group they would themselves consider as their main base.

For example, the procedural law group, based on expressed interest in procedural law, has 10 researchers. However, the core of the group consists of five researchers, of which one is also a core researcher in another research group, the criminal law group. There is no professor in the core of the criminal law group. One could perhaps consider whether it would be fruitful to let the criminal law group and the procedural law group merge. These two thematic groups' close links to the different core subjects in the LLM programme would probably speak against such a solution, however.

Research integrity and ethics are subject to continuous discussions among the department's doctoral students and the doctoral supervisor group. One researcher has also been tasked with implementing the national interpretation of the need for ethical review. In the event of research misconduct or similar violations, the department follows UGOT procedures. There has, at the present time, not been any potential or acknowledged research misconduct or other unacceptable practices at the department.

Strengths

- Much has been achieved since RED10 and all groups describe considerable improvements.
- Research seminars held both within and across the research groups and use of the VPP enables creativity through transverse perspectives as well as theoretical and methodological pluralism both internally within the groups and externally.

Weaknesses

- It is not entirely easy to get a clear picture of the more precise nature, core and boundaries of the 10 research groups.
- There is some uncertainty as to how the concept of a complete academic environment should be understood.

Recommendations

- As the development of the groups as academic environments has been somewhat uneven, a follow-up of the development is needed, and an evaluation of the results of the organisation should be performed. The further development of the academic environment should be facilitated by regrouping and added competence where needed.

D2. Publication

D2.1 Publication strategy

The department strives to encourage researchers to publish in a wide range of publication channels and for a wide audience of readers. When it comes to publications targeting the scholarly community, the department encourages international publications in CrisIn level 2. This is done by increasing the awareness of the different publication channels and the bibliometric systems.

The department has recently developed and adopted a publication strategy (2018). In this strategy, high emphasis is put both on publishing open access and on publishing in high-quality, peer-review journals (level 2). Most peer-reviewed journals at this level do not, however, allow for open access of the “gold” standard. The strategy thus entails a certain internal contradiction on this point, which could be difficult to resolve for researchers at an individual level. Yet, the publication strategy should reinforce the department’s aims towards an optimal publication profile.

The department encourages researchers to publish open access. For example, all doctoral theses are published in the university’s open access system, GUP, provided by the UGOT library. This is followed up through the annual research report, at both aggregate and individual level.

The department has allocated financial resources to the research groups since 2015 in order to encourage them to develop strategies for research applications and publications, to facilitate group activities, and to support research and societal impact. The department has also, within the task of the deputy head and the RC, worked on the above-mentioned publication strategy in collaboration with the research groups. The new publication strategy, aimed at general awareness of the publication possibilities in various channels such as open access, highly-ranked journals and publishing houses, as well as for the professional audience and society at large, is expected to promote a broad scope of high-quality research.

Strengths

- The new publication strategy adopted in 2018, and the increasing awareness of how to combine quality with strategy have turned the trend to a positive one.

Weaknesses

- The strategy places a strong emphasis on the responsibility of individual researchers, and too little on institutional responsibility and support.
- There is a discrepancy in the publication strategy between publishing open

access and publishing in high-quality, peer-review journals (level 2). The department is not the only unit to struggle with this contradiction, however.

Recommendations

- A clearer distinction should be made between research outputs and dissemination of research results to a wider audience. Both senior researchers and doctoral students should carefully consider the optimal channel for all and any text they work with.

D2.2 Analysis of bibliometric data

Legal scholarship requires publication both in national and international outlets. The task for all academic legal institutions in Sweden and abroad is to enhance and protect rule of law by introducing the outcome of scientific conceptual work and interpretation of the legal system to legal institutions and society at large. There are international publications within certain fields of law, such as general legal theory and for international law, but the number of such publications is limited and they do not enjoy a similar decisive position as the most important publications in many other fields of study. The main academic publishing outlets are national, and specific for each legal order. This entails that legal scholarship is not adapted to be measured by bibliometric standards adopted for more empirical or general theoretically based sciences, and must be assessed according to criteria related to these tasks. At the same time, it must be recognised that law is becoming more international, and that comparisons are needed in all fields of legal scholarship. Certain theoretical and practical issues are definitely international by nature. Legal scholarship must thus also relate to an international theoretical discourse.

Measured according to the Norwegian Cristin system, productivity during the period in terms of all publication types indicates a slight increase from 106 publications in 2013 to 120 publications in 2017, but also variations across the years, with a peak of 140 publications in 2016. The average output for all five years was 110 publications per year. The most frequent publication type in all years was book chapters, followed by journal articles. Of the total 508 publications in the period (without visiting professors), 46 percent (235) were scientific publications according to the categorisation of *Cristin* (peer-reviewed in independent outlets). The number of scientific publications in 2017 was 59, with a total of 18 categorised as level 2 publications.

The number of journal articles published in the department has risen during the period, while the number of magazine articles has decreased. Even the number of books has risen. The number of level 1 articles has risen from nine to 28. The number of level 2 articles has been low (two-five) except for in 2016 when it was nine. Books tend to be level 1 rather than 2 (only 3 level 2 books), but the overall number of books has increased. The number of book chapters is higher than that of articles. The number has not changed so much during the period. Level 2 book chapters are more usual than level 2 articles.

The bibliometric data have not favoured the department. The new publication strategy developed during the period (adopted in 2018), and the increasing awareness of how to combine quality with strategy have turned the trend to a positive one. The use of peer review has also increased, both in internal and external settings.

The publication output according to the bibliometric method employed by the university is not that impressive. In 2017, Professors published less than three publications each, and only one level 2 publication in average. Senior Lecturers published on average two publications each. Of 48 publications, only six were level 2.

Even though legal scholarship has been and still is to a certain extent national, research published internationally (in English) has increased from 48% of the total in 2013 to 59% in 2017. There is a potential in the department for increasing level 2 publications. The situation differs depending on the field in question. For example, the fields of civil and tax law deal with national legislation to a greater extent than the fields of international law and legal theory and philosophy, and less material is published in English. There is, however, an inherent weakness in employing an across-the-board bibliometric measurement to legal scholarship. Much of legal scholarship must be published nationally in the language of the legal actors in order to fulfil its purpose of enhancing the rationality of the legal system.

Strengths

- Productivity during the period in terms of all publication types indicates a slight increase.
- Research outputs published internationally (in English) have increased.

Weaknesses

- The emphasis on bibliometric data and level 2 publications does not favour legal research.
- The number and percentage of level 2 publications in the output of the department remains limited.

Recommendations

- A careful consideration of policies and choice of publishing channels is needed at the department. Increased awareness at the faculty and university levels for the main purpose of academic research within the field of law is also needed. An important task of legal scholarship is to participate in maintaining the rule of law by developing rationality in law. This entails that a high proportion of the research output must be in national channels directed at participants in the legal process of society in a larger sense.

D3. Facilities and research infrastructure

The concept of “facilities and infrastructure” covers a large variety of both physical and non-physical infrastructure, such as collaboration structures and networks. The topic is dealt with in other sections of this panel report, such as Section C1. Collaboration and Section E Support.

The department uses common research infrastructure available at faculty and university level, such as the Grants and Innovation Office. The UGOT libraries provide excellent materials, such as legal monographs, journals and databases that can be used by all researchers. GUP provides a platform for dissemination of research publications; it provides data to Swepub and various search engines as well as statistics. Department staff have participated in the development of the faculty database. The department participates in the Nordic network for legal research education (*JurforskNordic*). Additionally, informal collaborations take place at the doctoral level, such as with the University of Kent. The department strives to further develop the use of these infrastructures and facilities.

The department offers good support in the form of IT infrastructure. This could be further developed in order to facilitate researchers teaching online during research visits abroad.

Strengths

- Common research infrastructure is available at faculty and university level.
- There are numerous examples of valuable research collaboration and networks.
- The department uses common research infrastructure available at faculty and university level and participates in developing e.g. a faculty database for dissemination of research results and information about the researchers.

Weaknesses

- There seems to be room for further development of these infrastructures.

Recommendations

- Improve the possibilities to teach online while conducting research abroad.

D4. Transverse perspectives

The department has a working environment that seems to be open and inclusive. Equal opportunity and gender equality are dealt with in the department's different steering documents: the strategy 2012–2020, the operational plan 2018–2020 and a plan for equal opportunities and gender equality from 2015. Several steering documents at the university and faculty levels also address these issues.

Equal opportunities in recruitment are ensured through a formal process of open recruitment, scrutinising and evaluating the merits of the applicants and through a collegial multi-step process with evaluations of applicant merits complemented with interviews and references. The special advisors are chosen carefully to prevent bias and a homogeneous culture. Emphasising formal qualifications is seen as helping to avoid the use of discretion. If two or more applicants have the same qualifications, the department can also take the staff gender composition into account, and thus promote diversity. Gender has been a key factor when recruiting doctoral students (when two or more applicants have been equally qualified). In order to take these considerations into account, they need to be expressed in the respective vacancy announcement and in accordance with formal requirements.

The RED10 panel found no substantial problems relating to gender balance below the level of full professor. Nevertheless, it recommended that consideration might be given to the provision of mentoring and other supportive mechanisms as a means of further improving gender representation within the department. This recommendation seems to have been followed in a more or less unstructured and informal manner in the different subgroups. There were indications (in the 2017 survey) that some employees felt that the discussions and culture at seminars and other academic fora did not promote equal opportunities. Some experienced that there were unclear internal structures and networks that hinder equal opportunities for all.

D4.1 Equal opportunities and gender equality

Strengths

- The department has established expertise in the field of gender studies.
- The department's gender mainstreaming report from 2017 lays the foundation for further work with equal opportunities and gender equality.
- The department has adopted a plan for equal opportunities and gender equality, and an equal opportunity representative is appointed.

Weaknesses

- The gender balance is still not satisfactory. There is a gender imbalance in some of the research groups.
- The ambitious objectives stated in the steering documents need to be turned into concrete measures that can be followed up and evaluated.

Recommendations

- The department should monitor the different effects of the teaching and research environments and culture on its male and female employees, in order to ensure that a gender balance is maintained also after recruitment. The observations made in the gender mainstreaming reports should be followed up in the department's activities.

D4.2 Internationalisation

Internationalisation, meaning collaboration with researchers outside the department, both in the sense of incoming and outgoing exchange, is encouraged in the faculty. International collaboration has been essential in attracting members of examining committees, external reviewers of doctoral theses and peer reviewers. An extensive international network has been developed over a long period of time and has become quite extensive. Researchers also participate in several academic and non-academic networks. Networking constitutes a strength for the department.

The department also strives to ensure internationalisation through an open recruitment process. The department has had the opportunity to attract international scholars, especially within the framework of the VPP, recruitment to postdoc positions, and nomination to honorary doctors.

The department encourages both junior and senior scholars to participate in an international research context, both through mobility of its own researchers, and by inviting international scholars within various contexts. The department provides all researchers with some funding for research-related travel expenses, and encourages them to apply for external funding by informing them about funding possibilities and providing administrative support regarding applications. At the faculty level, there are good funding opportunities for senior researcher mobility within the 'Partnership Programme Internationalisation Support'. Younger scholars with children may find it difficult to take advantage of these opportunities. An internationalisation programme that stresses long stays abroad may have undesired gender impacts.

The department welcomes visiting scholars with their own funding whenever it is possible to provide an office. For examples, in 2015, the department hosted scholars from Australia, Denmark, Finland, Germany, Italy, the Netherlands, Spain, the UK and the US.

The department's researchers have acknowledged the importance of creating long-term and sustainable collaborations built on "institutions" such as research groups rather than on individual relations. A culture of cooperation and co-authoring should be systematically promoted.

Strengths

- The department has had the opportunity to attract international scholars, especially within the framework of the VPP, postdoc positions, and honorary doctors.

Weaknesses

- So far, internationalisation has not reached all researchers. The outcome of internationalisation is not that evident in the form of co-authorship and international research projects and projects with EU funding.

Recommendations

- Rethink the idea of "going abroad" by facilitating opportunities for researchers with young children.
- "Institutionalise" international collaboration in order to increase long-term sustainability of relations.
- More attention could be paid to the practical outcome, in terms of research cooperation and co-authorship, when visits are made to the department and from the department to other research units.

SECTION E – SUPPORT

E1. Internal research support

The university, the faculty and the department share the responsibility for research support, meaning that each level provides a different type of support. Administration at the department level has expanded in staff number, become more professional and works more closely with the researchers.

The department offers support to its researchers through the RC, its chair (the Deputy Head of Department) and a director of doctoral studies. The support comes in different forms, such as individual annual assessment, development dialogues, platforms for discussions, administrative, financial support etc.

Administrative support is provided for drafting budgets in applications for external funding. Co-financing of external projects is a part of the support strategy to allow for more external funding but is limited to available resources at the department. Information about external calls and grant application seminars is regularly sent to the researchers. Researchers who have attracted external funds are provided with financial reports from the economic system in order to facilitate the economic follow-up of the externally-funded projects. Other administrative support consists of: registering publications in GUP, organising conferences, as well as communication/information support including posting information on the department's website.

Strengths

- The availability of research support seems comprehensive and overall satisfactory.

Weaknesses

- It is somewhat worrying that not all of the research groups have made use of the financial support they receive.

Recommendations

- More needs to be done to make the researchers register their research activities in the faculty database.

E2. Faculty and University-wide support

The university and the faculty offer research support in the form of grants, library materials, platforms for disseminating research and other services for communicating research performance.

The researchers at the Department of Law have access to library materials, such as legal monographs, journals and databases, provided by the University libraries. There is also a university common platform for dissemination of research publications.

There is a Grants and Innovation Office within the central university administration that offers feedback on grant applications. This kind of support is of course essential in order to attract external funding.

There is an External Relations Office at the faculty that offers help with communication and dissemination of research results, contact with media and indirect conference support. It also provides career coaching for doctoral students. Although these services are to a certain extent used by the researchers at the department, the feeling is that the support structure is mostly adapted to the business- and economics- related disciplines.

There is a faculty database for dissemination of research results and information about the researchers. It is an important tool for communicating the department's research. However, it is not used to the extent it is intended, mainly due to technical problems and the fact that the researchers seem to lack motivation to register information in the database. There is a need to offer registration support and "carrots" to those who do register their research activities.

Financial support, such as grants for researchers and doctoral students, is offered at both faculty and university level. This is valuable support and researchers at the department have been successful with their applications. To facilitate the process, information about recurring grants and deadlines should be gathered on the faculty's website.

Strengths

- There is good support in the form of grants available from the faculty. There is less support when it comes to faculty funding for research and doctoral education.
- The faculty gives financial support to internationalisation.

Weaknesses

- There are no grant advisors at faculty level; the advisors are at university level and there is only one person for all the departments of the faculty, which is not enough. The researchers at the department have to compete with their colleagues at the other four departments for feedback on grant applications.

Recommendations

- There is a need for additional advisors and ideally one who could devote his or her time entirely to the Department of Law.

SECTION F – OTHER MATTERS

F1. RED10 evaluation

As expressed by the department itself in its RED19 self-evaluation report, the RED10 evaluation panel was harsh in its comments on how the department perceived, and acted, in relation to its institutional responsibility to promote high-quality research. Although certain elements were identified and praised, such as specific research achievements, the overall conclusion was that there was a clear lack of strategy in terms of establishing priorities and setting out future plans for research.

The department was recommended to develop an appropriate research strategy, with clearly designated research priorities supported by clusters of good quality researchers. It was advised to prioritise specific research areas and try to develop a critical mass of researchers. On a positive note, it was concluded that the department had developed good to excellent research in some areas where it had distinct clusters of researchers.

The bottom line was that the department had the potential for developing its cross-disciplinary research, both internally and externally. It should in particular take advantage of the possibilities to engage in further collaborations with other disciplines and departments at the university.

RED10 gave the department reason to reflect on its strengths and weaknesses as an academic entity. While the RED10 evaluation panel ended up identifying and praising elements, such as specific research achievements, it was overall harsh in its comments on how the department perceived, and acted in relation to, its institutional responsibility to promote high-quality research. This was a wake-up call for the department, which took the critique in a constructive spirit, aiming at solutions that would not damage the social coherence of the unit. The main conclusions drawn from the evaluation are reflected in the long-term strategic plan (2012–2020) drafted in 2012.

The five general recommendations of RED10, presented in the RED10 final report, were the following:

1. foster national and international collaboration and recruitment from outside the University of Gothenburg;
2. strengthen the flux of postdoctoral and early-career scientists from and to the University;
3. review departmental and faculty-level structures and, where appropriate, reduce the number of highly specialised and under-staffed research groups;
4. foster the dissemination of best practice within the University in relation to research and research planning;

5. promote interdisciplinary research both within the University and in collaboration with European and international partners.

The main changes resulting from the RED10 evaluation can be seen in the strategy document from 2012, which focused more on strategy at a general level, as well as future developments, compared to previous strategies. The strategy was adopted in 2012 and covers the period 2012–2020. It builds e.g. on the university's policy document Vision 2020, the strategic discussions and ideas developed at the faculty, and not least the report from the previous research evaluation (RED10). It was amended in 2013, 2016 and 2018.

The organisation of the complete academic environments into seven thematic groups and three sectoral groups was a deliberate action by the department. The groups are supported with both administrative and financial resources, as mentioned. Parts of what was assessed as excellent research in the recommendations from the evaluation has formed the basis for the sectoral groups. This, together with the university's changes in administration and structure, has contributed to a more strategic approach within the department. Additionally, advertising all vacancies at the department both nationally and internationally is also a strength that has evolved since the last evaluation.

F2. Other matters

(None.)

CONCLUDING RECOMMENDATIONS

As an institution of legal scholarship, the Department of Law has responsibilities towards the legal profession, the legal system and society at large. Legal research at a high academic level is essential for maintaining the rule of law and for developing rationality in law.

The department is situated within the university's School of Business, Economics and Law. All in all, the department benefits from this organisation. However, being part of a business school can be challenging for the department in achieving and sustaining its identity as a school of law. It is also a difficulty that the academic traditions are very different between the fields of law and economics, which makes it challenging for a legal academic environment to be assessed according to indicators developed mainly for the field of economics.

The previous evaluation of the department highlighted the theoretical and methodological reflection, curiosity and pluralism and multi- and interdisciplinarity, and socially relevant research. The department is still highly innovative in research questions and research topics. The publication profile resembles that of many European law faculties in that many of its publications are in national outlets and some of the research is published in internationally recognised journals and books.

Since the previous research evaluation in 2010 the department has undergone a considerable expansion. The 2009 data for employed academic staff was 23.1 FTEs and 12 doctoral students. The equivalent number of academic staff in 2017 was 52.3 FTEs and 25.8 doctoral students. It is a remarkable development, which shows that the department has more than doubled its size. Yet this trend cannot continue without more funding (internal and/or external). However, due to several upcoming retirements in the next 10 years, the department will recruit new staff to replace the retirees. One important objective in this process would be to secure that all the research groups have at least one full professor. In this context the department, in cooperation with the faculty, should clarify its policy when it comes to appointments of full professors, i.e. promotion versus open calls.

The department has increased its success in attracting external funding through the period. However, the external research funding comes from private sources and public agencies, and only to a little extent from important national and EU research funding organisations. The department should have higher ambitions of attracting funding from EU funders, the Swedish Research Council, and equivalent sources.

The department's work environment seems in general to be open and inclusive. The department leadership is aware of the importance of a good and well-functioning leadership and is prepared to act accordingly. Following the advice given by the previous evaluation panel, the department has made a considerable effort to make strategic prioritisations.

Based on its long-term strategy for 2012–2020, and the aim of creating complete academic environments as its core foundation, the department is now organised in seven thematic and three sectoral groups. The new organisation enables the department to better promote and visualise its research profiles.

The overall impression is that the current organisation is well suited to serve the purpose for which it is designed. There is, at the same time, an awareness from the department management, as well as from the individual groups, that further work may be needed in order to achieve an even more efficient structure for promoting research activities. Academic leadership is not only about leadership at the department, faculty and university levels. It is also about leadership within the individual research groups, and about shaping and promoting the group's common identity as well as the interactions and dynamics between the members of the group. A distinction should also be made between administrative and academic leadership. The latter includes, among other things, an ability to articulate a clear research strategy for the group and to inspire the group members and to support them in their professional careers. The new organisation should be evaluated by the department in order to assess whether it has achieved its goals and whether changes or adjustments are needed.

The department has made use of its comparative advantages. One such advantage is the larger environment of which it is a part i.e. a regional hub for international

trade and technology and the multicultural city of Gothenburg. Research in business, economics and law has shaped the profile of the faculty. UGOT has launched and supported a number of strategic centres to support interdisciplinary research collaboration within the university. The department is and has been represented in several of these centres. Through these centres, active researchers also gain access to additional international and multidisciplinary networks. For instance, the Ocean Group is drawing on the strong multidisciplinary marine research environment available in Gothenburg.

The concrete output generated based on the department's research is quite extensive and targets a variety of stakeholders in society. All of the researchers and groups are active in different contexts, particularly towards regional actors (municipality of Gothenburg, NGOs, regional business (Maritime cluster, Volvo etc.) and research partners). Several of the department's teachers and researchers are actively involved in the judicial process as judges or experts. Other outputs consist of, for example, contributions to government and committee reports, assignments for public authorities and society at large including media. The department could consider further developing its strong regional impact through interaction with regional partners.

Legal scholarship requires publication both in national and international outlets. There are occasionally different understandings across the departments and at the faculty level on matters such as publication policies and criteria for funding distribution. A new model for distribution of faculty funding seems e.g. to be more favourable to the department than the previous one, but the department still finds the distribution model to work to its disadvantage.

The task for all academic legal institutions in Sweden and abroad is to increase the scientific elements of the legal system in order to increase and protect the rule of law. The department has recently developed a publication strategy (2018). In this strategy, high emphasis is put both on publishing open access and on publishing in high-quality, peer-review journals (level 2). Most peer-reviewed journals at this level do not, however, allow for "gold" standard open access. The strategy thus entails a certain internal contradiction on this point, which could be difficult to resolve for the researchers at an individual level.

There are some international publications within the fields of more general legal theory and for international law, but the main academic publishing outlets are national and specific for each legal order. This entails that legal scholarship is not adapted to be measured by bibliometric standards adopted for more empirical or general theoretically-based sciences, but must be assessed according to criteria related to these tasks. At the same time, it must be recognised that law is becoming more international, and that comparisons are needed in all fields of legal scholarship. Legal scholarship must also relate to an international theoretical discourse.

PART III: CROSS-CUTTING PANEL REPORTS

REVIEW OF SELF-EVALUATION METHOD FOR QUALITY ASSURANCE: GENDER PERSPECTIVES

1020	Summary and Recommendations
1021	Self-evaluation method and form
1021	Background data
1022	Construction of a quality system for research
1022	Panel Membership and Constitution
1024	Foundations of the Review
1024	Approaches taken by the panel of reviewers
1025	The importance of evaluating the gender perspective in a research quality evaluation
1025	Conditions for self-evaluations to be effective
1026	Observations
1026	Applying a mainstreaming approach in the self-evaluation form
1027	Making conscious choices and use of statistical data
1028	Increased awareness and consolidated knowledge for stronger self-reflections
1029	Elaborated reflections on core categories influencing gender in academic research
1029	Recruitment
1030	Performance
1031	Funding
1031	Support, networks and the presence of women
1032	Internationalisation and collaboration
1032	Table overview of RED19 self-evaluation form sections, background data and suggestions from the panel
1035	References

SUMMARY AND RECOMMENDATIONS

In August 2019, the University of Gothenburg (UGOT) appealed to a panel of independent experts to review the gender equality perspective of the University's research quality assurance system. They were supplied with material from the latest self-assessment round of Research Evaluation and Development (RED19). The supplied sample consisted of the self-evaluations carried out by nine departments and the University management, as well as their respective sets of background data. Each of the eight faculties of UGOT was represented by one or two departments. Based on the supplied material, the panel examined how the gender perspective was addressed in the research quality evaluation.

While it is widely accepted that gender equality plays a decisive role in the quality and relevance of scientific research, large efforts are still required to deliver the goal of gender mainstreaming and to realise its benefits. In this context, the panel's observations from the RED19 self-evaluations confirm that there is a need to take steps to address gender perspectives in research quality evaluations – such as by appointing a transverse gender panel. The reviewers concluded that RED19 has not fully succeeded in making the departments demonstrate awareness of gender perspectives in research in their self-evaluations. This review thus presents a series of both specific and general suggestions on how RED19 as a research quality assurance system can provide a more comprehensive perspective on gender, in coherence with the process of gender mainstreaming.

The texts of the departments reveal a high degree of variation in terms of awareness of and interest in gender equality. A minority of the reviewed evaluations provide self-reflective and concrete answers based on the background data provided. A first observation is that departments tend to limit themselves to showcasing achievements rather than reflecting critically on strengths and weaknesses. Acknowledging challenges, analysing lessons learned, and identifying possible areas of improvement are essential to making evaluations fruitful and ensuring that they contribute to continuous development. A deeper level of analysis on gender will only be possible if departments enrich their data sets and use them to support systematic self-reflection and evaluation.

A second important observation of the panel is that the self-evaluations are omitting important aspects of academic research that have demonstrated gender-specific effects. Aspects of recruitment, performance, funding, support, networks and the presence of women, internationalisation and collaboration were not sufficiently addressed. These shortcomings may partly be due to the absence of questions and background data on gender in certain sections of the form such as facilities and research infrastructure (D.3), internationalisation (D4.2) and collaboration priorities (C.1 and C.2). Regarding the sections that include questions on gender equality, there is also room for enriching the background data to enable in-depth answers. For example, the panel was missing data on specific aspects of recruitment, performance and funding.

These observed weaknesses are inherent risks of any self-evaluation process. The panel argues that it is possible to reduce these risks by making adjustments on two fronts. One consists of increasing the knowledge base of the departments or evaluation units and their ability to provide reflective answers. This includes increasing awareness on the specific effects of gender imbalances in scientific research, but also building capacity and expertise to actively counter gender bias and to introduce good practices. The second concerns adjusting the research evaluation process, formulation of the self-assessment questions and preparation of background data. While it is crucial to address both fronts, the panel concentrated its observations and recommendations on the latter.

Self-evaluation method and form

The method of self-evaluation can be a useful instrument for the departments to reflect on and articulate their approach to pursue gender equality. However, designing a self-evaluation form that results in concrete answers while leaving room for elaboration is a difficult exercise. The panel offers the following suggestions for improvements:

- Address gender systematically in all aspects of research in the evaluation form. This entails removing the open transversal question about gender (D4).
- Replace the recurrent question “Is gender equality taken into account?” with “How do you safeguard against gender-bias?” in future self-evaluations of research quality.
- Inquire description of the position and gender of the team members conducting the self-evaluation. The self-evaluation team at the department level needs to:
 - Be gender equal;
 - Include academic leadership;
 - Include one person with competence in gender issues and a mandate to influence the development at the departments.
- Provide guidelines that support constructive reflections on existing challenges and areas of improvements.

Background data

It is a prerequisite that the university has adequate systems for extracting reliable data as a basis for gender analysis. The panel proposes the creation of a more gender-conscious and developed set of data and to perform a pre-analysis of gender distribution and gender patterns. For example, the panel identified the need for additional quantitative and qualitative data on gender distribution and/or gender patterns in:

- Co-funding required by external funding sources;
- Co-authorships in publication (as an indicator of networks and collaborations);
- Use of infrastructure;
- Time until promotion;
- Recruitment stages: short listed, interviewed and finally selected;

- Work satisfaction (employee perception survey);
- Perception of gender equality at work (employee perception survey).

All types of positions, roles and units need to be analysed from a gender perspective e.g. leadership positions, PhDs and communication officers. The panel also recommends specific gender analyses, for example on:

- Strategic positions and groups;
- Influence at leadership level on decision-making e.g. research funding;
- Level of leadership engagement in gender issues;
- Explicit and implicit demands on internationalisation or “strategic funding”;
- Support systems for research and application.

Construction of a quality system for research

To best support the adoption of strong gender equality principles and practice, the panel suggests that the research quality system should:

- Continue to employ a special focus on gender evaluation until it is sufficiently mainstreamed in all parts of research.
- Include key aspects of research that can influence gender bias in research such as recruitment, performance, funding, support, networks and the presence of women, internationalisation and collaboration.
- Consider the possible conflicting goals between gender and other overarching priorities such internationalisation
- Define and articulate a conscious and systematic way of gathering, analysing and acting-on data related to gender differences.
- Use the self-evaluation as a basis for dialogues with departments.
- Allocate more resources to increase knowledge and awareness of systematic gender imbalance and unconscious bias in the research environment, and take steps to address these.
- Make sure that gender balance is maintained within the evaluation teams and that leadership is represented.

PANEL MEMBERSHIP AND CONSTITUTION

The University of Gothenburg (UGOT thereafter) is undertaking an ongoing quality evaluation of research, Research Evaluation for Development (RED19), expected to be completed by the end of autumn 2019. The evaluation focuses on research conditions and processes in order to contribute to the University’s Vision 2020 objective of maintaining research of high international class and quality.

RED19 included a self-evaluation exercise, carried out by the University Management, the eight faculties and their departments to reflect on the existing conditions and processes for ensuring quality of research. In parallel, UGOT has recently developed a plan for gender mainstreaming¹ which describes how gender equality

will be an integrated part of established activities and operations. In this context, a panel of external experts has been convened to examine the extent to which the RED19 self-evaluation questions adequately address gender perspectives. This especially relates to research conditions such as structures for allocating resources, recruitment, terms of employment and assessment of performance and skills.

Membership of the panel is as follows:

Anna Dubois, First vice president, Chalmers University of Technology
Charlotte Silander, Senior lecturer in Political Science, Linnaeus University
Karin Dahlman-Wright, Professor in Biosciences and Nutrition, Karolinska Institute

The panel benefited from and included the written comments provided before the panel discussion by Svandis Benediktsdottir, Gender equality advisor, Norwegian University of Science and Technology. It is noteworthy that one additional male participant was hindered to attend the panel discussion meeting and could not be replaced in time.

The panel was provided with the self-evaluations and background data for the following selected departments:

- Institute of Neuroscience and Physiology; Physiology and Pharmacology (Sahlgrenska academy);
- Institute of Clinical Sciences, Panel 3 Departments of Radiophysics, Dermatology, Radiology, Otorhinolaryngology (Sahlgrenska academy);
- Department of Physics (Faculty of Science);
- Department of Sociology and Work Science (Faculty of Social Sciences);
- Department of Education, communication and learning (Faculty of Educational Sciences);
- Academy of Music and Drama (Faculty of Fine, Applied and Performing arts);
- Department of Historical studies (Faculty of Arts);
- Department of Business Administration (School of Business, Economics and Law);
- Department of Applied Information Technology (Faculty of IT).

They also received the self-evaluation of the University Management.

The background data was provided to the Faculties and Departments before they conducted the self-evaluation exercise, this included:

1 During the 2016–2019 period, all Swedish higher education institutions were given a special assignment from the government, Gender Mainstreaming in Academia, to produce an individual plan for their work on gender mainstreaming. The assignment has been handled by the Swedish Gender Equality Agency since January 2018. <https://www.regeringen.se/regeringens-politik/jamstalldhet/jamstalldhetsintegrering-i-statliga-myndigheter---jim/>

- i. Staff data
 - a. Individuals and full-time equivalents (FTEs) employed over 2013–2017 (Sept data) listed by **gender** and staff category (Professors, Senior lecturers, Lecturers, Research associates, Associate senior lecturers, Postdocs, Other teaching/research staff, PhD studentships, Administrative Staff, Technical staff).
 - b. Reported secondary occupations (number of academic staff with).
 - c. PhD origins of new employees 2014–2017 (listed by **gender** and staff category).
 - d. Funding sources of full-time equivalents (FTEs) shown as percentages, 2013–2017 (Sept data) listed by **gender** and staff category.
 - e. Age groups by staff category (individuals), March 2018.

- ii. Financial data
 - a. Income and expenditure: Research (million SEK).
 - b. Income and expenditure: Education (million SEK).
 - c. Unused contributions (million SEK).
 - d. Largest funders in total 2013–2017 (million SEK).
 - e. Retained balance (million SEK).

- iii. Bibliometric data
 - a. Publication output by document type.
 - b. Norwegian bibliometric indicator.
 - c. Open Access.
 - d. Co-authorship with external organisations.
 - e. Publication output 2017 based on staff category and **gender**.

- iv. Doctoral student data
 - a. Number of admissions of doctoral (PhD) students by age group and **gender**.
 - b. Number of doctoral (PhD) degrees by age group and **gender**.
 - c. Duration of net doctoral (PhD) studies, median (years) by **gender**.

FOUNDATIONS OF THE REVIEW

Approaches taken by the panel of reviewers

It is important to emphasise that the panel was asked to evaluate the gender perspective of the RED19 research evaluation, and not the overall gender mainstreaming *approach* of UGOT. The panel reviewed the approach of RED19 to evaluate the gender perspective in research, and considered the content of the self-evaluations only for this purpose. The panel did not assess the degree of gender equality achieved, but how far the present research quality evaluation can lead to progress in this regard.

The panel chose to base the analysis of the evaluation in previous research on the following key factors, which have proven to influence gender at the workplace in the field of scientific research:

1. *Recruitment* (Van den Brink 2010; Nielsen 2016; Husu 2001; Dobbin et al. 2015; Kalev et al. 2006);
2. *Performance* (Leathwood & Read, 2013; Nielsen, 2017; van den Besselaar & Sandström, 2017);
3. *Funding*, (Statskontoret 2015; Sandström et al 2010);
4. *Support, networks and the presence of women* (Moss-Kanter 1977; Phillips 2000; Van den Brink 2010);
5. *Internationalisation and collaboration* (Zippel 2011; Ackers 2005; Elsevier 2016, Nielsen, 2016; Uhly et al., 2015).

The importance of evaluating the gender perspective in a research quality evaluation

The University's ambition is to ensure that gender perspectives are embedded into organisational structures, policies and practices. The panel's analysis of the RED19 self-evaluation material reveals gaps in how this is currently evidenced, highlighting the need to give special attention to the gender perspective in research quality evaluation.

Research evaluations and research quality assurance systems are important processes that underpin strategic decisions such as allocation of research funding and investments in the research environment. Therefore, an evaluation that considers the gender perspective is needed to reduce the risk that important strategic decisions become gender-biased.

The panel thus welcomes the present initiative of appointing a specific review panel on gender and recommends that this continues until the objectives of gender mainstreaming are achieved.

Specific attention needs to be given to achieve coherence between University-wide overarching priorities and their resulting measures, for example between gender and internationalisation, to reduce the risk of potential conflicts emerging.

Conditions for self-evaluations to be effective

The panel supports the method of self-evaluation under the conditions that:

- A relevant set of data is provided in a format that supports reflections and comments i.e. pre-analysis of raw statistical data may be required.
- Guidelines are provided to support constructive reflections.
- There is a concrete plan for how the self-evaluations will lead to improvements and actions.

Creating an environment allowing reflection on challenges and lessons learned is particularly key to successful evaluations.

OBSERVATIONS

The panel examined the general quality of the answers against (1) what the self-evaluation form and instructions were asking for; (2) what could be analysed from the background data; and (3) what the reviewers found necessary to be able to assess the quality system as a whole. Based on this approach, the panel agreed on the following observations.

Designing a self-evaluation form requires finding a balance between, on the one hand, leaving room for free elaborations in the answers and, on the other hand, ensuring that concrete answers are given. The supplied selection of self-evaluations shows wide differences in the ways the form was interpreted and used by the departments. The panel thus concluded that the form allows for a high degree of variability in both the level of analysis and reflection.

The panel makes three main observations and recommendations. First, it is crucial that the self-evaluation form requires gender comments in all sections, according to mainstreaming principles. Second, the reviewers found it difficult to interpret the supplied background data, since the self-evaluations contained very limited data analysis and few references to the background data. Finally, more attention was given to general achievements of objectives rather than to recognition of specific existing challenges and identification of areas where improvements could be made.

Applying a mainstreaming approach in the self-evaluation form

Applying a mainstreaming approach requires gender issues to be integrated in all elements of the evaluation and not be treated as a separate issue. The panel welcomes the fact that questions on gender have been included in several sections of the self-evaluation form, but unfortunately not all. Analysis of bibliometric data (D2.2), Facilities and research infrastructure (D3), Internationalisation (D4.2) and Collaboration (C1) are examples of sections in which the questions do not include the gender perspective, despite the fact that these aspects of academic research are known to have significant gender-related implications, as further developed in this report under *Elaborated reflections on core categories*.

The panel also identified an unnecessary additional question at the end of the form where the departments are asked to add a brief summary on how they work with equal opportunities and gender equality (in section D):

“D4. Transverse perspectives / D4.1 Equal opportunities and gender equality: Please provide a brief summary of how you are working with equal opportunities and gender equality. Strengths and weaknesses of your current approach? Suggestions for improvement? Ongoing/planned initiatives?”

The inclusion of this open question may stem from a (correctly) perceived risk of missing out on gender equality comments if gender mainstreaming is embedded throughout the form. However, the question is not in line with gender mainstreaming principles and the answers do not provide significant added value: only a few departments mention strengths and weaknesses, specific ideas or plans for the future in their response to this question. The panel considers that the risk that departments oversee commenting on gender equality is thus not mitigated by the inclusion of this question and recommend that it is removed from the form.

All types of positions and all types of units need to be analysed from the gender perspective. Staff data provides gender information by the following categories of staff: Professors, Senior lecturers, Lecturers, Research associates, Associate senior lecturers, Postdocs, Other teaching/research staff, PhD studentships, Administrative Staff, and Technical staff. However, there is no indication as to whether the roles involve responsibility for some aspect of leadership within the department. The panel notes that departments rarely reflect on gender distribution at the leadership level (even if asked in section B1.1 Department leadership but not B1.2 Faculty/University level leadership), as well as for key administrative positions such as communication. In the texts, gender is more often reflected upon in relation to the number of women by academic titles and responsibility for participation in committees. Male underrepresentation in some positions and/or units is not addressed by unbalanced departments, including, for example, amongst doctoral students and various administrative positions across the institution. The general absence of reflections concerning the background data on gender distribution in doctoral education (both students and supervisors) is regrettable. Finally, comments on the gender distribution within the team delivering the self-evaluation and subsequent report at the department-level should be required in section F3.

Making conscious choices and use of statistical data

The panel found that the supplied background data was helpful to support gender analysis, but did not feel that this was used to its full potential by the respondents in their self-evaluations. In some cases, statistical data remains unused and in other cases data is mentioned but not commented upon. The panel would have liked to see analysis of the data and identification of patterns regarding important areas such as recruitment, performance, funding, support, networks, and the presence of women, and internationalisation and collaboration priorities – as elaborated in the next section.

The panel recommends that University of Gothenburg should enrich its set of statistical data on gender distribution and gender effects to enable a more comprehensive analysis of gender perspectives. For example, data on gender distribution in the leadership (and other important assignments) could be added to provide a basis for reflections on influence on decision-making, especially regarding allocation of funding. Other examples of data on gender disparities and gender patterns that future evaluations should include are:

Recruitment	<ul style="list-style-type: none"> • Recruitment stages: short listed, interviewed and finally selected candidates • Time until promotion • Salary disparities
Performance	<ul style="list-style-type: none"> • Use and management of Research Infrastructures • Allocation of research time, administrative duties, teaching and supervision • Work satisfaction (employee perception survey) • Perception of gender equality at work (employee perception survey)
Funding	<ul style="list-style-type: none"> • Co-funding required by external funding sources • Allocation of internal research funding on departmental and faculty level
Support, networks and the presence of women	<ul style="list-style-type: none"> • Co-authorships in publication (as an indicator of networks and collaborations) • Strategic positions and groups, incl. appointment and promotion boards • Influence at leadership level on decision-making e.g. research funding (survey) • Support systems for research and applications and early academic career
Internationalisation and collaboration	<ul style="list-style-type: none"> • Explicit and implicit demands on international mobility (survey) • External collaborations e.g. co-funding of external projects

The format of the data provided to the respondent for gender analysis is crucial. The purpose of providing background data is to make gender disparities visible to the respondent and thereby to support self-reflections. Raw data may need to be pre-analysed by experienced analysts before it is provided to the departments' management for self-evaluation.

Increased awareness and consolidated knowledge for stronger self-reflections

There is a strong variation of interest in and awareness of gender issues across the departments. The panel also observes that the meaning of the term "equal opportunities" has been interpreted inconsistently.

Lack of awareness of gender effects and strategies to counteract gender biases becomes apparent, for example when departments abstain from commenting on gender or equality of opportunity, even when it is explicitly referred to in the question. This kind of omission occurs in several of the supplied self evaluations. The panel thus underlines the need for consolidating pre-knowledge and building capacity on how to address the gender perspective.

The panel also observes that the answers related to gender don't surpass the level of description of general achievements of objectives and that the majority neglect critical self-reflection and recognition of specific areas for improvements. Across the self-evaluations, strengths and weaknesses are often not clearly identified and there are few examples where specific ideas are explored or plans set out for the future.

To correct these observed issues, the panel suggests use of the phrase “How do you safeguard against gender bias?” instead of “Is gender equality taken into account?” in order to achieve greater attention and encourage more reflective answers. Asking explicitly about gender bias shifts the focus and thereby facilitates better analysis and reflection on gender perspectives.

Analytical and concrete answers that contain specific challenges, lessons-learned and possible areas for improvements are essential to make evaluations fruitful and contribute to continuous development. Clarifying the objectives against which to evaluate one’s work could also be helpful for the self-evaluation team.

ELABORATED REFLECTIONS ON CORE CATEGORIES INFLUENCING GENDER IN ACADEMIC RESEARCH

The panel analysed the supplied RED19 material against factors influencing the conditions for equal opportunities in academic research. Recent research findings show that the following aspects are of importance for gender equality: recruitment; performance; funding; support, networks and the presence of women; internationalisation and collaboration priorities.

Each category is illustrated by examples of specific types of gender analyses that the University could include in future evaluations: quantitative analysis based on gender distribution/balance and qualitative analysis of gender effects or gender patterns. The second is key to enable departments to go beyond descriptive accounts and provide more in-depth and reflective answers.

Recruitment

Previous research indicates that rules and processes regarding recruitment and promotion are critical in supporting gender equality in higher education (Van den Brink 2010, Nielsen 2016; Dobbin et al. 2015; Kalev et al. 2006). A minority of the departments address gender in their answers to the following question posed in RED19:

“How are you currently working to ensure that recruitment contributes to high quality research and renewal? How do you evaluate the success of your recruitment policy? How do you secure equal opportunities?” (Section B.2 Recruitment).

This may be due to the broad formulation of the question, which neither requires analysis of gender balance in recruitments nor encourages the implementation of positive action measures.

The panel suggested including data and reflections on:

- Gender analysis of recruitments;
- Work to fulfil targets of female professors;
- The gender perspective on support systems in the early academic career;
- Gender balance in appointments and promotion committees;
- The implementation of active measures, e.g. positive action in recruitment;
- The uses of warning systems, e.g. alerting in recruitment processes.

Performance

The use of bibliometric indicators and metrics to assess the performance of individual researchers could support the identification and challenging of discriminatory processes in academia. On the other hand, it is known that standardised measures can lead to unintended outcomes and can exacerbate inequalities (Bøtcher Jacobsen & Bøgh Andersen, 2014), including inequality in terms of gender bias (Leathwood & Read, 2013; Nielsen, 2017). The panel recommends that a research evaluation needs to take this into account and show awareness of the advantages and disadvantages of the different performance assessment systems.

Performance is addressed by RED19 in relation to feedback and evaluation, the allocation of assignments and publication strategy:

“Do you currently conduct follow-up/assessments of research environments and research outcomes? If so, how? Do individual researchers receive feedback on their performance? If so, how? Strengths and weaknesses of your current approach? Suggestions for improvement? Ongoing/planned initiatives?” (Section B.5. Feedback and evaluation).

“How do you distribute assignments (teaching, administration, research, other tasks)? Is gender equality taken into account? If so, how?” (Section B1.1 Department leadership).

“Do you work with equal opportunities and gender equality in your publication strategy?” (Section D.1 Academic culture).

Although gender is explicitly mentioned in the last two questions, a minority of the answers refer to this. The panel proposes to make these questions more specific and provide specific background data to help the respondents provide more developed answers.

Future quality assessments should include other aspects of performance such as:

- Gender effects of the use of publication and citation data within performance-based funding models across all institutional levels.
- Gender patterns of type of positions (not only by academic title, but also leadership or administrative roles).
- Gender effects of systems for allocation of research time, administrative duties, teaching and supervision.

Funding

Previous studies examining the topic of research allocation and gender have revealed that research funding – regardless of which funding system is adopted – is consistently allocated in favour of male applicants (Bondestam and Grip 2015). Basic funds used for co-funding of external projects have been shown to cause a “Matheus effect” favouring men (Statskontoret 2015) and allocation of research funding based on an idea of excellence can also have a negative effect on gender equality (Sandström et al 2010).

RED19 asks about whether gender equality is taken into account within the funding strategy at the departmental level (Section *B1.1 Department leadership*). These questions are partly answered by a small number of departments. Regarding the self-evaluation section on strategic projects for the University Management, the panel underlines the need to raise awareness of the detrimental effects that increased demands on ‘strategic funding’ can have on gender equality. The form and the answers lack a reflection on internal funding systems and their effects on gender equality. A suggestion is to include data and reflections on:

- Allocation of internal research funding on departmental and faculty level from a gender perspective.
- Gender effects within co-funding of external projects.

Support, networks and the presence of women

Gender distribution can influence the majority culture in a group (Moss-Kanter 1977), thus the presence of women within decision-making and leadership groups is important in ensuring that their interests are represented (Phillips 2000). It is reasonable to expect women to be represented as deans, heads of departments, research leaders and on selection and recruitment committees. Previous research indicates that leadership engagement in gender issues influences gender equality results (Dobbins et al 2015). The indication from most studies is that women are underrepresented in applications for research funding (Bondersson & Grip 2015). The panel emphasises that internal systems for supporting women in applying for research funding – based on the idea of positive actions – can be important.

There is no direct question in the RED19 self-evaluation form addressing gender representation within strategic positions and groups, but the issue is addressed by three departments. A question is asked in the self-evaluation form about how the departments work to maintain and develop internal research support in order to promote high quality research and how gender aspects are taken into account (Section *E1. Internal research support*), but no department from the supplied material answers this question. The University Management addresses support of young scientists through a programme, but it is unclear if this is evaluated from the gender perspective. The panel lacks a reflection on doctoral education (in general and from the gender perspective) and the implications of this for future recruitments of researchers.

Future self-evaluations should include data and reflections on:

- The representation of women and men on strategic positions and groups.
- Gender analysis of the use and benefit of support systems for research and applications.
- Leadership engagement in gender issues.
- Gender perspectives relating to infrastructure use and management.

Internationalisation and collaboration

Research has put focus on the gender effects of family status on academic participation in international research collaboration and indicates gender patterns in access to and practices of international research collaborations (Uhly et al 2015; Vabo 2012). Research also shows that women are less likely than men to participate in international collaborations (Elsevier 2016, Nielsen, 2016; Uhly et al., 2015) and that international mobility is related to family responsibilities (Sannino and Vainio 2015).

The RED19 self-evaluation form requests a brief summary of how evaluation units are working to increase internationalisation and collaboration in research. No questions were asked about gender within this context and none of the departments reflect on gender in their answers. This omission is all the more problematic as previous research indicates that increasing demands on internationalisation and mobility have gender effects related, for example, to unequal possibilities to travel (Zippel, 2011). The awareness of possible implications needs to be raised. The self-evaluations should include data and reflections on:

- Explicit and implicit demands on internationalisation.
- Gender patterns of types of collaboration.

Table overview of RED19 self-evaluation form sections, background data and suggestions from the panel

The following table provides an overview of to which extent the core categories influencing gender in academic research are addressed in RED19 self-evaluation form and background data, and lists additions suggested by the panel in the present report.

- In **bold** are the sections that included questions on “gender” or “equal opportunities” and gender distribution data made available to the departments in the background data.
- In *italic* are the sections that should include questions on gender and additional data that the panel considers necessary to provide to the departments in the future.

Aspects of academic research with gender effects	Corresponding sections of the RED19 self-evaluation form	Corresponding RED19 Background data on gender distribution and suggestions from the panel (data and topics)
Recruitment	B2. Recruitment	<ul style="list-style-type: none"> • Individuals and full-time equivalents employed over 2013-2017 by staff category and gender • PhD origins of new employees 2014-2017 by staff category and gender • <i>Recruitment stages: short listed, interviewed and finally selected (gender distribution)</i> • <i>Time until promotion (gender disparities)</i> • <i>Appointment and promotion committees/boards (gender distribution)</i> • <i>Strategies and measures to fulfil targets of female professors</i> • <i>Support systems in the early academic career</i> • <i>Types of implemented active measures</i> • <i>Types of warning systems used in recruitment</i>
Performance	B1.1 Department leadership <i>B5. Feedback and evaluation</i>	<ul style="list-style-type: none"> • <i>Systems of allocation of research, administrative duties, teaching and supervision (gender effects of)</i> • <i>Work satisfaction (employee perception survey)</i> • <i>Perception of gender equality at work (employee perception survey)</i>
	<i>C3. Research-teaching linkages</i> <i>C3.1 Undergraduate and master's education</i> <i>C3.2 Doctoral education</i>	<ul style="list-style-type: none"> • Number of admissions of doctoral (PhD) students by age group and gender • Number of doctoral (PhD) degrees by age group and gender • Duration of net doctoral (PhD) studies, median by gender • <i>Supervisors of doctoral education (gender distribution of)</i>
	D2.1 Publication strategy <i>D2.2 Analysis of bibliometric data</i>	<ul style="list-style-type: none"> • Publication output 2017 based on staff category and gender
Funding	B4. Funding	<ul style="list-style-type: none"> • Funding sources of full-time equivalents shown as percentages, 2013-2017 by staff category and gender • <i>Co-funding required by external funding sources (gender effect of)</i> • <i>Allocation of internal research funding on departmental and faculty level</i>
Support, networks and the presence of women	B1.1 Department leadership <i>B1.2 Faculty/University level leadership</i> B3. Career structure D1. Academic culture <i>D3. Facilities and research infrastructure</i> E1. Internal research support <i>E2. Faculty and University-wide support</i>	<ul style="list-style-type: none"> • <i>Leadership engagement in gender issues</i> • <i>Strategic positions and groups (analysis of presence of women and men in)</i> • <i>Co-authorships in publication (as an indicator of networks and collaborations)</i> • <i>Research infrastructure use and management</i> • <i>Support systems for research and applications</i>

Aspects of academic research with gender effects	Corresponding sections of the RED19 self-evaluation form	Corresponding RED19 Background data on gender distribution and suggestions from the panel (data and topics)
Internationalisation and collaboration	<p><i>C1. Collaboration</i> <i>C1.1 Collaboration and networks within the University of Gothenburg, with other Swedish universities, and internationally</i> <i>C1.2 Collaboration with external stakeholders</i> <i>C2. Relevance and impact on society</i> <i>C2.1 Management and support</i> <i>C2.2 Research relevance and impact on society</i> <i>D4.2 Internationalisation</i></p>	<ul style="list-style-type: none"> • <i>Co-authorship with external organisations</i> • <i>Explicit and implicit demands on internationalisation (gender analysis of)</i> • <i>Types of collaboration (gender patterns of)</i>
Other	<p>D4.1 Equal opportunities and gender equality (the panel suggests to take this section away) <i>F3. Organisation of work to complete the self-evaluation</i></p>	<ul style="list-style-type: none"> • <i>Gender distribution and positions in the self-evaluation team</i>

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REVIEW OF THE UNIVERSITY OF GOTHENBURG'S RED19'S QUALITY SYSTEM REGARDING EXTERNAL COLLABORATION IN RESEARCH

- 1038 **Summary and Recommendations**
- 1041 **The panel's set up and instructions**
- 1042 **Foundations of the review**
- 1042 **Observations**
- 1043 Strong variation of types and intensity of collaborations
- 1043 Absence of principles and criteria
- 1044 Bottom-up based collaboration model based on individual initiatives
- 1044 Proactively create and manage demand for academic knowledge and skills
- 1044 Transparency is crucial
- 1045 Enhance dialogue and interaction within the university
- 1045 The opportunities and limits of the UN sustainable development goals
- 1045 Merits, rewards and strategic recruitment and promotion
- 1046 Dissemination of good examples
- 1046 Evaluate and learn
- 1047 **Some observations regarding the self-assessment approach**

SUMMARY AND RECOMMENDATIONS

In early 2019, a panel of independent experts was appointed to review collaboration activities at the University of Gothenburg (UGOT, henceforth). The review was done in conjunction with (and part of) the university's large research assessment, RED19, and is based on the self-evaluations done by the units of assessment, in particular the issues that dealt with the goals and practices of collaboration. The panel notes that the self-evaluations showcase an array of excellent examples of external collaboration in research. It is impressive to read the width and depth of research activities conducted together with, or commissioned by, external organizations. There is no doubt that UGOT is deeply immersed in the societal fabric of its immediate region in West Sweden, as well as nationally and internationally integrated. When it comes to research relevance and social impact, UGOT makes a significant contribution, in the form of start-ups, open software, participation in open debates, strategic partnerships, and the development of national and international guidelines.

The texts supplied from faculties and institutions bear witness to a high level of ambition when it comes to interaction with extramural agents. The units have developed extensive collaboration with non-academic stakeholders throughout the years. Collaboration is taken seriously, with a recently appointed Deputy Vice-Chancellor responsible for issues regarding outreach and cooperation, and some faculties have created Vice-Dean positions for external collaboration. The different organizational levels all seem to recognize the importance of external collaboration, that it brings a different viewpoint to research, and that such ties enrich both research and education. All departments involved in the self-evaluation have made a considerable effort to show that they take collaboration with external stakeholders seriously.

While acknowledging all of these strengths, the panel notes that there are opportunities for improving and enhancing collaboration at UGOT, as well as in the measures deployed to assess and gauge collaborative activities.

To begin with, collaboration must be motivated and anchored in a set of ambitions and goals. Ideally, it should serve as a vehicle to create and sustain demand for research within society. It should, in addition, enable the management and solution of problems that cannot be solved otherwise. By confronting research with real-life problems, collaboration should also enrich academic work and enhance the relevance and quality of research. By formulating such general ambitions for collaborative activities, UGOT would direct strategic decisions on when and how to engage in collaboration, thereby pointing out areas and activities in which the university should engage, but also identify pitfalls as well as engagements that it should refrain from.

In some instances, the panel finds ample evidence of such strategic considerations of the goals and benefits of collaboration, as well as its risks and limits. These positive observations notwithstanding, the panel found recurrent deficiencies in the framing of collaboration – why it should be done, with what motives and purposes. Some of the self-evaluations fail to identify the benefits that collaboration may provide to the units, with missed opportunities to use it as a vehicle for relevance and quality enhancement. In others, collaboration emerges as a ubiquitous phenomenon with few if any constraints and limitations, where societal expectations seem to form the single most important basis of research activities, possibly to the detriment of quality, and even jeopardizing the integrity of the institutions involved.

Another challenge concerns the overall direction and coherence of collaboration. Some units reported only limited oversight of their collaborative activities, with whom they collaborate and the procedures and ultimate motives of collaboration. What lies behind this opacity is not clear to the panel, and it cannot be ruled out that some of the undisclosed collaboration may be of a less relevant, or even doubtful, nature. Other units reported a jumble of activities, some of which are not really genuine collaboration but rather outreach and research information, which indicates a weak understanding of the aims and goals of research collaboration. These deficiencies resurface at the level of faculties and university management, where strategic goals and ambitions to some extent are vague and non-committal. The UN development goals have been suggested as one way of framing the strategic direction of UGOT's research collaboration. Judging by the self-evaluations, the development goals do not yet serve as a particularly strong guiding device for collaborative activities; the reports of alignment with the development goals are, with some notable exceptions, mostly done in the form of enumerations rather than articulations of strategic ambitions.

Strategy is a necessary condition for beneficial and sustainable collaboration. Another critical element lies in the procedures of collaboration. While collaboration is often rewarding, it is a complex activity that entails trade-offs of various kinds, ethical dilemmas, and the need for both flexibility and predictability in the interaction with stakeholders and collaborative partners. If collaboration is intended to reinforce quality and afford collaborative networks and real-life problems, carefully crafted procedures are needed to govern and shape collaborative practices. A first and most critical element is priority-setting, indicating where, how and with whom to collaborate. Such procedures need in addition to articulate how networks of collaborators are shaped, how practices are governed and conducted, and how considerations of integrity and relevance are balanced. They should also provide a framework for the governance of intellectual property as well as the appraisal of collaborative experience in hiring and promotion decisions.

When it comes to the practice of collaboration, the panel finds a similar variety as for strategies. Some units have a clear understanding of how collaboration should be organized and practiced. They have developed measures and methods of re-

cruiting collaborative partners, of managing intellectual property, communicating their collaborative activities, and dealing with issues of integrity and potential conflicts of interests. Others seem to perform collaboration in an opaque manner, where the goals and practices remain undisclosed and not subject to any specific guidance or governance from formal bodies of the university; presumably they are of a personalized form where one or several academics collaborate with partners in society. Yet others display an erratic approach, where collaboration is rare, and where procedures are devised on a case-by-case basis. The formal university levels – central leadership, faculties, and departments – seem to have only limited oversight and transparency of collaborative practices, and a limited conception of how collaborations may be sustained over time and how benefits might be gauged and enhanced. The panel found no evidence of a systemic approach to how collaboration should be rewarded in hiring and promotion decisions.

While recognizing the historical legacy and continued significance of the “teachers’ exemption”, the university nevertheless should ensure that collaborative activities do not risk harming the university’s reputation or creating untenable relations with external partners. In addition, the panel suggests that UGOT urgently develops a policy for the appraisal of collaboration in hiring and promotion decisions, and that it considers using its strength in media research to develop a university-wide platform for communication about collaboration, including the inception of continuous training on various aspects of research-based collaboration.

Finally, as to the evaluation and assessment of collaboration, the panel recognizes the efforts that have been put into the RED19 process as the first inventory of collaboration within UGOT. The RED19 secretariat has identified the most important dimensions of collaboration in its commission to the units of assessment. In doing so, and in returning to the issues over time (which UGOT should, in future RED exercises), it will enable learning within each unit as well as between units. Furthermore, such an exhaustive overview should function as strong underpinning of any strategic endeavor in the future. The panel noted some shortcomings in the process, mostly by omission rather than by commission with units not fully responding to the issues raised in the self-evaluation template. The panel also recommends that UGOT in future evaluations underlines that answers should be of a reflective nature, and that units that abstain from reflection in their self-evaluations should be asked to resubmit their responses.

On the basis of these observations, the panel offers the following suggestions for improvements:

- Elaborate university-wide strategies and principles for collaboration. Keywords for such a program could be quality of research, transparency, and integrity.
- Strengthen the dialogue between central university leadership, faculties and departments, when devising, implementing, and assessing such strategies and principles.
- Elaborate measures of assessing what is to be achieved in collaboration. When

- possible, routines for formal evaluation should be coupled to such measures.
- Enable collaborative learning – collect and assess collaborative practices, and create a university-wide platform for such learning.
 - Strengthen communication on collaboration – and consider establishing a special function for science-informed journalism for practitioners in the area.
 - Establish systematic and transparent reward and incentive structures for collaboration.
 - The UN development goals are a useful starting point for collaboration but needs much more refinement, concretization and specification, if they are to structure collaboration.
 - The instructions for self-evaluations should be reworked to ensure that answers are aligned with instructions.
 - Invite continuous reflection on outcomes, procedures and practices of collaboration, and do it systematically to improve the foundation for collaboration strategies and procedures.

THE PANEL'S SET UP AND INSTRUCTIONS

UGOT is undertaking an ongoing quality evaluation of research, named RED19, Research Evaluation for Development. It is expected to be complete by the end of autumn 2019. The evaluation is focusing on research conditions and processes. It will contribute to the University's Vision 2020 objective of maintaining research of high international class and quality.

The first step, which is now completed, consisted of a self-evaluation for the University management, the eight faculties and their departments to reflect on the existing conditions and processes for ensuring quality of research. One section of the self-evaluation addressed specifically the question of collaboration with external stakeholders, as well as Impact and social relevance of the research. In this context, the university asked a group of external experts to help to reflect on and improve RED 19's self-evaluations to assure quality of collaborations with non-academic actors in research.

The panel convened on 24th and 25th of June 2019 at Klädesholmen, Tjörn. It included five members:

Mats Benner (chair of the panel), Vice dean at the Lund University School of Economics and Management

Harald Castler, CEO of Getinge Life Science and chairman of the board of Halmstad University

Ingrid Elam, Professor and critic

Helena Lundberg Nilsson, Director of regional development at Region Västra Götaland

Per Molander, Swedish official and advisor in public policy issues

The panel of reviewers was provided with:

- The complete RED 19 self-evaluation template.
- The compilation of answers from faculties and departments to the questions on Collaboration with external stakeholders (C.1.2) and Impact and societal relevance (C.2).

FOUNDATIONS OF THE REVIEW

Collaboration is a central aspect of contemporary academic life. In its self-description, UGOT highlights that it “meets societal challenges with diverse knowledge”, that it “works actively for sustainable development” and that it “contributes to a better future”. Such general claims shape virtually all higher education institutions in our time: they aim to interact and serve, in a manner which improves social, environmental and economic conditions. The forms and shapes of collaboration are complex and difficult to pinpoint, however. Universities engage in everything from lectures in public libraries to partnerships with large corporations, and from forging spin-offs to advising non-governmental organizations. The area of collaboration, while as old as the university itself, is therefore subject to very different principles depending on the type of activity, partnerships and aims. Given the rising expectations on universities to contribute to the resolution of challenging societal issues, and to the development and deployment of new knowledge more generally, there is – the panel argues – a need to establish principles, strategies and procedures for collaboration. Setting such overarching goals for the plethora of collaboration activities in academic institutions will ensure that collaboration is mutually beneficial to universities and to partners in society, that it meets high standards in integrity while contributing to relevance, and that the university ascertains that collaboration does not undermine its role of as a provider of reliable and public knowledge.

OBSERVATIONS

During the review, the reviewers discussed two main aspects: 1) the collaboration capacity of UGOT – based on the information provided and their respective pre-knowledge about external research collaborations of UGOT and other Swedish and international universities; and 2) the research quality system currently in place at UGOT – based on the self-evaluation instructions of RED 19 and their respective pre-knowledge about self-assessments and quality systems.

The panel evaluated the general quality of the answers in relation to what the self-evaluation form, and what the evaluators required in order to be able to assess it. They agreed on the following observations.

Strong variation of types and intensity of collaborations

Unavoidably, the activities reported are highly variegated, given that conditions for collaborative activities differ substantially between the disciplines. Some disciplines connect more easily to society than others, and have what appears to be a natural and strong collaboration with external stakeholders. Others operate in fields with sharper demarcations between research and practice, and their experience will necessarily be different. The reports also differ in their level of analysis. Some come close to pure enumerations of activities, whereas others attempt to bring some structure into their reporting. A number of descriptions lack an assessment of the strengths and weaknesses, and proposals for improvements. In some cases, the texts convey the existence of a clear vision of the goals of external research collaborations and/or awareness of starting something new, exploring a new approach or being in the process of setting new strategies to achieve the goals. Others only describe what they do, not how it enhances the quality of research.

The enumerations of activities sometimes also tend towards an exercise of showcasing good examples, but the self-critical aspect is often missing, with some exemplary exceptions.

The panel observes that such wide differences could be ameliorated through a more coherent stance towards what collaboration is, how it may be pursued and for which purposes, and how its impact and outcomes may be assessed.

Absence of principles and criteria

Although the lists supplied are ambitious and comprise high-quality activities, there is in general no apparent set of principles guiding interaction with outside society, or criteria to be used for selecting certain projects and turning other candidates down.

The boundaries between collaboration and popularization, or with consultancy, are sometimes unclear. Quite a few activities seem to be more of a supportive nature rather than mutually reinforcing or beneficial. This entails a risk of falling into the role of consultant in an excess of commissioned research. This may also reflect a lack of strategic direction. The reports often indicate that it is either external partners or the individual researchers who are driving the agenda, only rarely the faculty or department. The risk becomes even greater when there is no awareness of who holds the power in the relationship and steers the direction the collaboration activities of the department or faculty. Some departments appear to be too close to their collaborative partners, and would benefit from some distance keeping.

By mutually beneficial or reinforcing, we mean a process marked by mutual respect of the respective competences of the partners involved, and how they can be used to achieve something that is more valuable than isolated activities. The university should set guiding principles and criteria to ensure that collaborative activities serve this laudable goal.

Bottom-up based collaboration model based on individual initiatives

Research collaboration with external stakeholders at UGOT has predominantly grown organically from individual initiatives. Overall, we see a picture of a predominantly bottom-up based collaboration model largely based on individual initiatives. Only in some instances was the panel notified of more systematic models for societal engagement. Again, while the historical foundation of collaboration in Swedish universities make the individual academic the most important carrier of collaboration, this does not preclude a more coherent and active approach from the university's side. As a minimum, all collaborative efforts, including those initiated by individual academics, should be beneficial to the overarching goals of the university, and deviations from that ideal should be rectified.

More generally, work is needed to be clear about why academics engage in collaboration and what it brings to them. Examples of questions that need to be asked are: What does the external collaboration mean to your department/faculty? Why do the department's researchers engage in it? What kind of impact is intended? Guidelines and criteria for interaction with external stakeholders should be laid down in order to bring some structure into the field of collaboration.

Some departments display a tradition of constantly discussing how to keep distances and draw the limits of their collaborative work, whereas other do not seem to have that discussion – or at least not visibly in the reports.

Proactively create and manage demand for academic knowledge and skills

In case of low demand from external partners, some faculties or departments seem to be satisfied with reporting a collection of isolated individual initiatives. In case of high demand from external partners, respondents seem to consider the large amount of collaboration as a core asset, without weighing possible risks that such an approach entail.

In both cases, units run the risk of becoming only reactive to the opportunities of collaboration. Low demand bears the risk of becoming defensive, and excess demand bears the risk of departments becoming overloaded. Units should be far more proactive in their approach to external demand and ensure that they themselves articulate the opportunities and risks of collaboration.

Transparency is crucial

In many self-evaluation reports, no principles or criteria for selection and prioritization of certain type of external collaboration were discussed. Their foundations of collaboration emerged as opaque and based on initiatives and networks outside the reach of the university. Again, while this is a reflection of the historical development of collaboration in Sweden, there is a need of weaving a red thread among the either isolated and/or numerous initiatives and building a coherent understanding of the effects of collaboration. Increased self-awareness at faculty or department level is a necessary condition for ensuring collaborations to be beneficial in terms of mutual benefit, openness, participation and integrity for all collaboration

partners¹. It would also help to reduce risks for the university: in case of conflicts, it will be easier to know who is responsible and manage the problem accordingly. Being more articulate and self-aware also helps to unlock new resources.

Enhance dialogue and interaction within the university

A university is a complex organization with multiple decision-making sites and levels. It is striking that the faculties' answers do not fully capture the richness of the departments' responses, nor do they provide an umbrella for how collaboration should be understood and executed. Some of the departments/faculties have a clear strategic agenda and strategy for collaboration and impact, whereas others do not mention the strategic and long-term ambitions. Such strategic variation requires an awareness of the different practices but also concerted efforts to bring about a coherent culture of collaboration.

The fact that answers were predominantly descriptive, functioning as catalogues of collaboration and lack of demonstrated effects is not only caused by either lack of prior self-reflection and strategy, or the type of self-evaluation questions. We understand that this reflects the decision-making structures of academic units in Sweden, where departments have many functions but not necessarily to act as a strategic node for collaboration. Having noted this, we still want to point out that coordination is a prerequisite for the governability of collaboration. This would include working out common guidelines and policies together with the faculties and have them implemented at the departmental level. Departments repeatedly ask for this in the self-evaluations, and the university management should heed that request. The reports send a clear call for a common frame, and it is possible to do so even if there is a strong diversity among faculties and departments.

The opportunities and limits of the UN sustainable development goals

The specific use of the UN sustainable development goals is potentially useful as an example of societal processes and their significance for universities, if however not easily translated into an assessment of the quality, or impact, or relevance of collaboration as judged by the responses. More work is needed to refine the goals if they are to serve as beacons of collaboration.

Merits, rewards and strategic recruitment and promotion

There is a general lack of consistency of reward and incentives for external collaboration in research. The texts acknowledge the importance of them, but this is not reflected in procedures of recruitment or promotion. Practices vary across the university: from totally inexistent to strong commercial external reward. The lack of integration of external collaboration in the academic merit system bears important risks in term of who drives the agenda of the collaboration. In the absence of academic reward, external rewards, such as extramural income, may come to determine the value and direction of collaboration.

¹ "Ömsesidighet, öppenhet, delaktighet, integritet för inblandade parter" (SUHF expertgrupp för samverkan, 2018)

Most departments identify the lack of internal reward as a hurdle and are asking for incentive programs and formal structures to stimulate and support external collaboration and utilization of research as merit. It is of urgent importance to meet these expectations.

Dissemination of good examples

RED 19 highlights a large number of exemplary approaches to collaboration, and the university should ensure that such examples are used to enhance the collaborative efforts of the entire university. Mechanisms should be put in place to highlight and communicate such good examples, and promote learning between faculties and departments and strengthen the cooperation with other universities. While this review has eschewed from singling out specific departments and faculties, it nevertheless wishes to highlight a few such outstanding cases:

- Biomaterials is exemplary in dealing with the interface between academic work and commercialization.
- BioEnv is exemplary in its capacity to formulate strategies, measures of implementation and assessing the impact of collaboration in a double-loop model.
- The faculty of fine, applied and performing arts is exemplary in regard to its integration of external stakeholders in setting goals and aims of collaboration. The initiative of contacting *Kulturanalys* in order to investigate the possibilities of causal evaluation of its activities is noteworthy.
- The Department of Marine Sciences has by hosting the Centre for Sea and Society (CSS), developed an excellent platform with clear guidelines and policies for societal interaction.

In addition to these four, the panel wants to highlight that

- Indigenous competence and expertise in innovation and entrepreneurship management is an asset; however, it is diluted across the university and there is a need to form a coherent stance and organizational model. If this is achieved, UGOT as a whole would excel in integrating research and practice in the area of collaboration.

Evaluate and learn

Follow-up of activities is nowadays standard in public institutions. Evaluation, in the sense of causal evaluation, represents a higher level of ambition and functions as a necessary underpinning for a university which aims to be a globally recognized academic environment. The university management should decide to engage in regular evaluations of collaboration strategies, procedures and outcomes, and set the general format of such activities (in terms of a framework, frequency). Ideally, it should continue the process of assessing collaboration in RED19 on a regular basis.

SOME OBSERVATIONS REGARDING THE SELF-ASSESSMENT APPROACH

Although self-evaluation is an acknowledged method to evaluate the quality of collaboration, impact and social relevance, there is a substantial risk that the self-assessment is reduced to anecdotal descriptions of activities lacking the strategic analysis of, for example, strengths and weaknesses. The instructions of the template emphasize the need for self-reflection and to propose constructive improvements. However, a number of the RED 19 self-evaluations lack this part of the analysis.

A re-formulation of the template would be helpful. Questions leading to a possible yes or no-answer, like for instance “Does your department....” ought to be replaced by questions inviting reflection, for instance, “How, in your strategy, do you allocate resources...”. It would also be useful to insert specific questions regarding development of quality through collaboration with non-academics, such as “How do you value research collaboration with non-academics, as compared to collaborations within academia? What research questions cannot be answered without such collaborations”, and so on.

It is recommended to further develop the section about management and support, with a deeper analysis of the strengths and weaknesses and questions around what support the faculties and departments would like to have from the university management.

The questions could also invite a higher degree of documentation of effects, asking for a reconstruction of the “pathways to impact”, in terms of identifying and mobilizing stakeholders, working with them at different stages of the pathway, and dealing with issues of ownership, credit, conflict of interests and so on.

The self-assessments could be further complemented by impact studies and relevant indicators such as external financing, shared employments, co-publications, open source publication, patents etc., as suggested by the Swedish Research Council (in: *Vetenskapsrådets redovisning av regeringsuppdrag att utveckla uppföljning av svensk forskning, 2018*).

If the self-assessment includes a strategic analysis of strengths and weaknesses/areas of improvement together with this kind of data supporting the qualitative analysis, self-evaluation is a good approach to evaluate the quality of collaborations.

PART IV

REFLECTIONS ON THE RED19 PROCESS

REFLECTIONS ON THE PROCESS

1052	Reflections on the RED19 process
1052	Communication with the departments and faculties
1052	Communication with the panels
1053	Resources and budget
1053	Evaluation units
1054	Self-evaluations
1054	Data and metrics
1055	Cross-cutting panels
1055	Final Remarks

REFLECTIONS ON THE RED19 PROCESS

Following the RED19 project, the Project Group have reflected on the *process* by which the project was carried out. The topics discussed below are the ones that became apparent to us during the evaluation. There may be other key issues that should be considered, but we hope that the points explored in this section may help the design of future evaluations.

Communication with the departments and faculties

The success of an evaluation exercise depends upon the engagement and effort of colleagues across the institution, it is therefore critically important that project-related communication activities are able to effectively inform and encourage participation. Several measures were taken at the outset of the RED19 project aimed at improving engagement and understanding.

The pre-study involved all Heads of Departments, Deans and the University Management, together with several representative researchers at the University of Gothenburg. A Reference Group, composed of representatives from each faculty, was involved during the preparatory phase. Several information meetings and open seminars were held, and the Project Group visited departments and faculties individually.

Despite these efforts, the level of engagement and quality of the self-evaluations varied and we may have underestimated the need for further information and communication with the departments and between faculties and departments.

Communication with the panels

In the 'Introduction' section of the panel reports, many have commented on communications associated with the project and other issues such as the quality of background materials, generally in positive terms.

One challenge perceived by the Project Group in our early communications with the expert panels was to highlight that the purpose of RED19 was not primarily to evaluate the present standing of research quality at the University of Gothenburg, but rather to identify the conditions and strategies that foster high-quality research environments that are conducive to strategic renewal of research. This deviates from the traditional peer review process in which the focus generally is the quality of research itself. Consequently, there was a strong need to ensure that members of the expert panels were made aware of this orientation of our evaluation exercise.

The information materials and panel instructions were carefully constructed and reviewed by national and international colleagues. However, in order to ensure a thorough understanding of the project, we believed it necessary to reinforce the aims of RED19 to all the panel chairs in person, or in some cases via Skype. The Project Leader conducted these meetings with all panel chairs and additional panellists where possible. It is our impression that these meetings were very im-

portant for the process. Feedback from panellists indicates that they were widely appreciated and suggests that the meetings supported preparation for the site visit. If economically and environmentally feasible, it would have been ideal to inform all the panellists in person about the project.

Our ambition to evaluate all levels of the University (including departments, faculties and the central university level) turned out to be a challenge. It was anticipated that each panel chair would contribute to the evaluation of faculty- and university-level management. To that end, they were provided with the relevant background materials and self-evaluations for those levels. The focus of the panels on scrutinising and coordinating the departmental evaluations resulted in limited available time for evaluation of faculties and the University Management, which was initiated at a late stage of the process. In retrospect, it may have been helpful to set more time aside for this part of the evaluation, and to clearly define it as a separate part of the review process.

Resources and budget

RED19 represents a major investment by the University of Gothenburg, involving a large number of staff drawn from across the University as well as 141 peers from all over the world. Despite two years of careful planning, we still partly underestimated the amount of labour involved, especially for the period during and after the site visit. We feel that the composition of the Project Group proved to be appropriate for the task, but note the importance of setting clear expectations regarding the level of time commitment expected by all parties involved.

The total budget of SEK 12 million understates the true level of resource invested in the project, partly because of in-kind contributions from institutional staff, both at central level and at the evaluation units, that is not included.

Evaluation units

The designation of departments as the primary evaluation units for RED19 was based on an ambition to evaluate the University of Gothenburg's research capabilities at the research field level and to ensure clear ownership of the results of the evaluation process. This was considered very important, not least by the Reference Group. In retrospect, the breadth of academic activity within evaluation units made this an ambitious task, even though most panels did successfully address the research standing across the research fields within their assigned department.

A notable complication to evaluating research standing at the discipline level is that there have been several organisational changes at the University of Gothenburg in recent years, including mergers of disciplines into larger departments. It is evident from the panel reports that research within these faculties continues to be organised according to individual disciplines and historical departmental structures. These findings address the RED19 goal of identifying conditions and strategies that foster high-quality research environments, since this is intrinsically tied to the University's organisational structure.

Self-evaluations

The process of self-evaluation was used across the RED19 project. This approach encourages engagement of internal stakeholders through all stages of the evaluation and has the potential to improve levels of buy-in, increase the acceptance of findings and support the adoption of recommendations. However, it also raises possible challenges to the objectivity of information provided to panel members, influencing their expectations prior to the site visit and shaping the direction of the assessment process.

Within RED19, steps were taken to mitigate these risks. Clear and consistent guidance was provided to evaluation units, recognising the importance of setting standards in self-evaluation. Inevitably perhaps, there remained some inconsistency in the rigor with which the self-evaluations were carried out, for example in the extent to which external standards and policies were used to demonstrate best practice. Providing questions in the evaluation documentation that offer a high degree of openness can allow for deeper and more reflective responses than closed questions. However, careful review of responses to such questions is required, to ensure that the necessary key points have been addressed.

Feedback from panellists, including the cross-cutting panels, revealed inconsistencies in how the self-evaluation process was approached. Panels consistently identified gaps in evidence and analysis, some of which suggested opportunities for systematic improvements. With this in mind, future self-evaluation processes may benefit from a more directive and detailed approach, providing respondents with a structured framework in which to capture their findings.

However, we anticipate that the University will benefit from the legacy of the self-evaluation process long beyond the life of the RED19 project. The external assessors provide legitimacy to the process, but self-evaluation is the key tool for ongoing development – enhancing and embedding reflective management practice in the institutional culture in a sustainable way.

Data and metrics

Evaluation units and assessors were provided with data on staff, finances and bibliometrics for each evaluation unit, with the expectation that this should inform both the self-evaluation and peer assessment processes. The process of gathering and curating this data presented challenges and resulted in a significant investment of manual effort. This revealed a number of limitations in the current research-related data management systems across the University of Gothenburg, which are not well integrated, uniformly deployed or well suited to the demands of the current research environment.

Across the self-evaluation documents and panel reports, it is apparent that the use of data both by University of Gothenburg staff and peer reviewers was inconsistent. There are few instances where data has been analysed systematically and appropriately contextualised in such a way as to meaningfully inform, support or challenge the wider narrative.

We therefore recommend that steps be taken to review and address the weaknesses in the current information systems that handle research-related data, in order to streamline the process of data collection and reporting, and to improve the quality and availability of management data. Prior to future assessment exercises, the ways in which data is presented (both to internal and external members of the assessment process) should be reviewed, with the aim of facilitating interpretation and analysis and encouraging consistency in how this is performed.

Cross-cutting panels

The material generated by RED19 is structured in such a way as to allow analysis to be carried out from cross-cutting perspectives. Since one of the ambitions of a research quality assurance system at the University of Gothenburg is that it should incorporate the ‘third mission’ – referring to the impact of research in society, a further panel was recruited to evaluate how effectively RED19 could be used as a method of quality assessment in this area. This panel was provided with the sections of the self-evaluations that discuss collaboration activities (Section C). A two-day workshop was held to evaluate the materials and discuss key findings, leading to a separate report (Part III, i). A similar approach was later adopted to examine gender perspectives. (Part III, ii).

This use of the material proved very constructive and has provided valuable insights that have been well received by the University Management. We believe that this approach could be further developed and applied to other perspectives – looking across evaluation units to explore how they have addressed areas such as internationalisation, academic leadership or recruitment strategies. We have learned that Lund University plan to use several transverse panels in their upcoming research evaluation and look forward to seeing the results.

Final Remarks

Initial feedback from colleagues suggests that the purpose of RED19 – to identify the conditions and strategies that foster high-quality research environments was well received by colleagues at the University of Gothenburg and by the evaluation panels. The project had the ambition to evaluate all levels of the University, recognising that academic and administrative units are interdependent in creating the conditions that foster high-quality research. The additional objective of evaluating the research standing at our university was also felt to be met, but required us to recruit peers that covered all research fields at the University. This provided a rich analysis, but presented logistical and organisational challenges.

An evaluation of the research environment requires a somewhat different emphasis of expertise in which an understanding of academic management processes and systems, including the development and implementation of strategy, is of particular relevance. This calls for skills that are likely to be of relevance across academic disciplines, or at least groups of disciplines that share common environmental attributes.

Adopting an approach that focuses on analysis of the research environment could therefore reduce the number of panellists required – offering potential improvements to consistency across evaluation units, as well as delivering obvious logistical advantages. Such a decision would have to be considered with care in order to protect the integrity of the evaluation process. During the pre-study, the reputational strength of the peers was consistently highlighted as a key requirement to ensure legitimacy of the evaluation outcomes. Overall, we were impressed by the enthusiasm and competence of the peers proposed by the departments in RED19, but it should be emphasised that great care should be given to the selection of peers and their competence profile in relation to the objectives of future evaluations.

RED19 was designed to be part of the quality assurance system for research and collaboration at the University of Gothenburg, which means that new REDs will take place at regular intervals. The next RED should take advantage of the experiences from not only RED19 but also the evaluations taking place at other universities in Sweden, for example Uppsala University and Lund University. Moreover, results from the UKÄ process evaluating the quality assurance system of selected universities will be available in time to inform the design and implementation of the next RED. By sharing our experiences, we believe that the Swedish higher education sector can maintain a robust research quality assurance system, underpinning its success in an increasingly dynamic and competitive international environment.



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