



The Geography of Quality of Government in Europe

Subnational variations in the 2024 European Quality of Government Index and Comparisons with Previous Rounds

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QoG THE QUALITY OF GOVERNMENT INSTITUTE Department of Political Science University of Gothenburg Box 711, SE 405 30 GÖTEBORG February 2024 ISSN 1653-8919 © 2024 by Nicholas Charron, Victor Lapuente and Monika Bauhr. All rights reserved. The Geography of Quality of Government in Europe. Subnational variations in the 2024 European Quality of Government Index and Comparisons with Previous Rounds Nicholas Charron Victor Lapuente Monika Bauhr QoG Working Paper Series 2024:2 February 2024 ISSN 1653-8919

Abstract

The 2024 European Quality of Government Index (EQI) collects the opinions of 135,227 respondents in a total of 210 NUTS 1 and NUTS 2 regions in all EU 27 member state countries. This paper, first, presents the 2024 data and highlights some of the main results of this effort to understand citizens' perceptions, and personal experiences, of regional quality of government. Second, it compares the findings with the previous four rounds of the survey (starting in 2010), highlighting both the regions that are improving and those that show a declining trend in their quality of government. Third, the paper discusses the changes made to round 5 and other trends in the data over time, paying special attention to the comparison of EU citizens' perceptions and experiences of government before and after the Covid-19 pandemic. Compared to the improvements in corruption levels recorded in the 2021 study, we find that corruption levels have bounced back to more normal levels in post pandemic Europe

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Introduction

According to several studies, if you want to know why, in current Europe, citizens in some regions enjoy more well-being – in terms of income, jobs, health, education, environment, safety, civic engagement, accessibility to services, housing, community, and life satisfaction – (Reginato et al 2023), feel happier (Shiroka-Pula, Bartlett, and Krasniqi 2023), and vote more for non-populist parties (Bauhr and Charron 2023a) than in others, you need to mostly look at one single indicator: the European Quality of Government Index (EQI). This literature has found a strong association, between the average perception of the quality of government that the inhabitants in an EU region have, which the EQI captures, and a large number of indicators of quality of life. In order to further contribute towards expanding and deepening this intriguing research agenda this paper presents the fifth round (2024) of this EQI index, after the ones in 2010, 2013, 2017, and 2021.

Since the beginning of the century, researchers have documented that the quality of government has important effects on countries economic development, both historically and contemporarily (Acemoglu and Robinson 2008, Rodrik 2004). as well as being a key factor for understanding other aspects of countries social and cultural development (Bagenholm et al 2021; Holmberg, Rothstein and Nasiritousi 2009). Departing from this broader country level literature, the European Quality of Government Index (the EQI) has allowed us to drill down to the regional level, uncovering previously understudied and undocumented, yet oftentimes quite dramatic, regional differences in the quality of government across European regions. Using EQI data, scholars underline the key effects of having high (perceptions of) quality of government for understanding within country differences. This allows us to investigate, for instance, why some regions in Europe, sometimes within the same country (think of Trento and Sicily in Italy, or Flanders and Wallonia in Belgium), exhibit systematically higher levels of socio-economic development than others and why some regions are more capable of taking advantage of opportunities, such as cohesion funds, than others (see i.e. Rodriguez-Pose 2013, Rodriguez-Pose and Garzilaso 2015). Carefully designed causal identification strategies have shown how, at least a significant part of the causality goes from quality of government to key developmental outcomes. For instance, it has been found the regional score in the EQI is a fundamental determinant of trade between European regions – and that, intriguingly, institutional quality is more important for inter- than intra-national trade (Barbero et al. 2021). Furthermore, studies document the importance of the EQI for public support for within EU redistribution and Cohesion policy (Bauhr and Charron 2020), as well as European identity formation (Bauhr and Charron 2023b), and discontent/distrust in EU institutions (Karahasan and Pinar 2023). Apart from its significant impact on scientific research in multiple disciplines, the EQI data has also been a key feature in the Report on Economic, Social and Territorial Cohesion¹, regularly published by the European Commission to monitor cohesion levels across the European regions and assess the impact of national policies, Cohesion policy and other European policies.

Given the centrality and importance of the broader quality of government research agenda, and since regional disparities in socio-economic development are also a threat to the European Union's future prospects for social and economic cohesion (Iammarino et al 2019), continuous efforts to investigate the effects of quality of government is of utmost importance for scholars and practitioners alike. Conceptually, we follow the standard definition of quality of government in the literature, that of Rothstein and Teorell (2008) – i.e., QoG as impartiality in the exercise of public power. To measure it, we look at three aspects: impartiality, i.e., that the government upholds an impartial treatment of all citizens irrespective of their personal characteristics or connections; corruption, i.e., that there is no abuse of public office for private gain), and quality, i.e., that the public services as perceived as high-quality. We explore the perceptions of these elements in three basic public service: health care, education, and law enforcement.

In this paper, we present the 2024 round of the EQI, which is the most comprehensive survey to date to measure the perceptions of quality of government in the European Union (EU) collecting the opinion and direct experience of over 135,000, post-coded respondents living in 210 regions in all EU 27 member state countries and either the NUTS1 or NUTS2 level. ² It builds on the previously published data from the four previous rounds: 2010 (Charron, Lapuente and Rothstein 2013; Charron, Dijkstra and Lapuente 2014) 2013 (Charron, Dijkstra and Lapuente 2015), 2017 (Charron, Lapuente and Annoni 2019) and 2021 (Charron, Lapuente and Bauhr and Annoni2022: Charron, Lapuente, Bauhr 2021)³. We guide users of this data on what the questions asked seek to capture conceptually, how data was collected, the use of multiple languages options , the mix of online and CATI, the correlation of the index with World Bank country level indicators, continuity and change in regional divisions in Europe

¹ See for example, https://ec.europa.eu/regional_policy/en/information/cohesion-report/

² NUTS stands for 'Nomenclature of territorial units for statistics' and more can be read about this at:

http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction

³ Data was originally funded by the EU Commission (REGIO) and published in a report by Charron, Lapuente and Rothstein (2010).

and other information that seeks to help readers better understanding this massive data collection effort.

We also highlight some of the most important results of 2024 EQI survey. First, we show that despite important and disconcerting global, regional and local developments, the 2024 round of the EQI – as is the case with many national level indicators of QoG - is largely similar to previous rounds when it comes to best and worst performing regions. Regions located in the north-western part of the EU tend to exhibit higher scores than those in the south-eastern part. As in all previous rounds, the Swedish speaking, Finish Island region of Åland ranks at the top of the EQI, while the lowest ranking region is Severozapaden in Bulgaria. Thus, all in all EQI data show overall continuity, with many high-(low) performing regions obtaining similar scores in all the survey rounds (2010, 2013, 2017, 2021 and 2024). In other words, while there are some noteworthy changes in some regional cases, QoG is a 'sticky' concept over time.

Second, in line with previous rounds, we find that country level quality of government scores conceals sometimes dramatic regional variation in Europe. For citizens, what regions you live in seem to matter just as much as what country you live in. We find large and significant regional differences within some countries, including Italy, Spain, Belgium, Greece, Bulgaria, France (especially if we include its overseas regions) and even smaller member countries like Slovenia and Croatia. Italy shows a noteworthy increase in within-country variation, largely stemming from several northern regions showing significant improvement. The regional variation in Greece has never been higher than the one recorded in the 2024 data. An interesting observation is that many capital regions score significantly lower than other regions.

Third, we find that despite the EQI is mostly 'sticky' over time, there are some notable changes. In Italy, the most significant improver from round 3 to 5 is Liguria, while the most significant improver between round 4 and 5 is the region of Sardegna. In general, most positive improvements in recent rounds have taken place in Southern Europe, such as in the Spanish regions of Madrid and Valencia, along with several central/Eastern regions such as Prague, Estonia, and Vilnius

Fourth, we note that the decrease in bribery rates and increase in perceptions of the quality of services recorded in the 2021 waves may partly have been explained by a decrease in service contacts, alternatively a "rally around the flag" effect during the Covid- 19 pandemic. While the 2021 round marked the lowest percentage of EU citizens claiming that they had direct experiences in paying a bribe in the past 12 months in exchange for a public service. in

question, as well as the lowest average of citizens saying someone had requested a bribe to date, the 2024 round marks a significant increase. In comparison with the 2021 round, where citizens were highly restricted from contact with public services, the 2024 data bounces back and shows a notable increase in the rates of citizens that either report paying have been asked to pay a bribe. However, many of the positive increases in corruption perceptions associated with the 2021 round remain in 2024.Lastly, this round 5 includes a new item: self-reported experience with vote buying, adding an additional 'experience-based' indicator to the regional data. This is the first time this question is asked at the regional level in Europe and therefore the most comprehensive European data that we have available on vote buying. The results indicate that, despite that this is a marginal phenomenon in most EU countries, in seven countries, over 10% of respondents answer positively to the question of whether they or their families were offered a gift, money or personal favor in return for their vote in the latest elections: Greece, Estonia, Croatia, Romania, Malta, Bulgaria and Cyprus.

The European Quality of Government Index: the 2024 Round

The latest round, launched in 2024 is based on the largest regionally focused survey across the EU countries to date. The 2024 data relies on over 135,000 respondents in 210 NUTS 1 and NUTS 2 regions in all EU 27-member state countries⁴. Together with national estimates from the World Bank Governance Indicators (Kaufmann, Kraay and Mastruzzi 2011), we report data on QoG for all EU 27 countries, for a total of 210 political units⁵. The core QoG survey questions (also called items) are based on the conceptual framework which understands the concept of QoG as a broad, latent multi-dimensional concept consisting of high **impartiality** and **quality** of public service delivery, along with low **corruption**. The concept also refers to how power is actually exercised, not necessarily the *de jure* formal rules but rather the *de facto* rules as perceived and experienced by the citizens. In other words, we can say that the EQI is describes the informal practices of formal institutions. To do this, it relies on European citizens' perceptions but also experiences with corruption, and the extent to which they rate their public services as impartial and of good quality in the area in which they reside. Details on how the index is constructed is found in several previous documents (see for example, Charron et al

⁴ The 2021, 2017 and 2010 rounds of survey data and research were funded by the European Commission via public tenders while the 2013 round was funded through the ANTICORRP project <u>https://anticorrp.eu/work_packages/wp5/</u>

⁵ The United Kingdom is not included in the 2024 sample as they are not part of the EU any longer. German and Belgium are at NUTS 1, while all other countries are at NUTS 2.

2014; Charron, Lapuente and Bauhr 2021), and a full list of the sample size and NUTS level by country is in appendix Table A1, while the list of survey questions is found at the QoG Institute's EQI homepage⁶

The purpose of the EQI is to provide scholars and policy makers with a comparable metric of sub-national governance that can be used to compare QoG across European regions, such that regions in one country can be compared with regions in any other one. That the EQI has been measured in five rounds means that the data can be used to track changes in regional QoG over time since 2010. Moreover, round 4 and 5 include respondent post-codes, thus the EQI offers excellent precision in spatial analyses.

The 2024 EQI data largely builds on the work of previous rounds, although there are several differences from the previous rounds.

For the second consecutive time, the survey uses a hybrid administration approach. Whereas in rounds 1-3, the EQI relied on computer assisted telephone interviews (CATI) via mobile and landline telephones, we now utilize online survey administration for 50% of the respondents. There are several reasons for this change. First, the online administration is of particular interest for a topic such as the EQI, where sensitive questions about perceptions and experiences with corruption, for example, could be affected by social desirability biases from intervieweradministered surveys, such as face-to-face or over a telephone. Respondents are more likely to answer truthfully about such sensitive topics when taking self-administered surveys, thus providing more accurate data (Kreuter, Presser, and Tourangeau, 2008; Heerwegh, 2009). Second, the costs and flexibility of online administration are superior to CATI: interviews are considerably cheaper, and respondents can answer questions at their own pace without the time constraints of telephone interview.⁷ Third, previous rounds of the CATI interviews showed that certain sub-groups of respondents, such as the youngest cohorts, were consistently undersampled, due to lack of owning a landline and lower rates of response via mobile phones. The use of online administration has led to a greater proportion of the sample containing such groups.⁸With this shift to hybrid administration, the EQI data has increased the sample size

 $[\]label{eq:linear} ^{6} \underline{https://www.gu.se/en/quality-government/qog-data/data-downloads/european-quality-of-government-index} \\$

⁷ The drawbacks of on-line survey administration are well-known (Pew Research 2018). Not everyone has easy access, or access at all, to the internet and the sample is no longer randomly selected as respondents choose to opt-in. In general, less educated, poorer or older respondents tend to have less internet access, thus online samples are usually skewed towards certain groups.

⁸ Of course, we acknowledge there is a trade-off in proportion size of the younger cohort that we gain via online via self-selected respondents versus randomly selected ones via CATI. Given the cost reduction in the online

considerably – from 78,000 in 2017 to 129,000 and 135,000 in rounds 4 and 5 respectively, with a minimum of 600 respondents per sampled unit. Finally, analyses from comparing the CATI and CAWI samples from round 4 show that in the aggregate, the regional estimates for the EQI items are indistinguishable for roughly 90% of the regions in the sample.

Second, the number of NUTS 2 regions in Croatia has expanded from 2 to 4 since the round 4 of the EQI data was collected. The former region of HR04 (*Kontinentalna Hrvatska*) has since split into three smaller regions of HR02 (*Panonska Hrvatska*), HR05 (Grad Zagreb) and HR06 (*Sjeverna Hrvatska*). The region HR03 (*Jadranska Hrvatska*) remains unchanged. For purposes of over time comparisons, retrospective changes were made to previous rounds whereby the four regions are accounted for in each year, with the previous scores of HR04 being applied to HR02, HR05 and HR06, a methodological approach that has been taken in previous rounds when other regional splits have occurred. The changes are shown in Figure 1



Figure 1: Changes in NUTS Classification in Croatia

Third, we sought to buttress the 'experience' measures within the index that in the past have inquired about petty corruption experiences (both being approached and having paid) for public service. As perceived electoral integrity is also included in the index, the EQI now provides an additional item on reported experiences with electoral clientelism, namely 'vote buying' – e.g. being offered money or a gift in exchange for one's vote by a political party in the latest election.

administration, we saw this as a helpful compliment to the declining CATI proportion of younger respondents even if they are self-selected.

Finally, as per round 4 of the EQI, we have again offered increased linguistic flexibility for the respondents, with a focus on offering the survey in multiple languages in regions where there are sizable linguistic minority communities. In Spain, the EQI is offered in Catalan and Basque in addition to Spanish; in Italy, respondents in the northern regions may answer in German, if at the border with Austria, or French, if at the border with France; Romanian respondents in several regions are offered the survey in Hungarian, and respondents in Latvia and Estonia have the option of Russian in addition to their main respective languages. Belgians anywhere may answer in Dutch or French as in all the previous rounds, as with Luxembourg residents with French and German. New to round 5, in several Polish regions, such as Opolskie (PL52) with significant German-speaking minorities, German will be offered alongside Polish, and respondents in all regions will be also offered Swedish along with Finnish in Finland. Figure 2 summarizes the countries where multiple languages will be offered in round 5.





Note: red countries denote those with multiple language options. Grey countries offer the official national language.

The EQI data over time – notable issues over the five rounds

Table 1 summarizes the sample and administrative features of the five rounds of the EQI. In most cases, the sample size increases in each consecutive year (with the exception of 2013 to 2017). Round 4 and 5 include all EU-27 member countries and also employ a hybrid administration of 50/50 CATI/CAWI, which resulted in a much larger pool of respondents..

	round				
feature	1	2	3	4	5
Year	2010	2013	2017	2021	2024
# of countries	18	24*	21	27	27
# of regions	172	212	185	238†	218†
# of respondents	33,500	85,000	78,000	129,991	135,227
NUTS level sampled	1 & 2	1 & 2	1 & 2	2	1 & 2
Administration	CATI	CATI	CATI	CATI & CAWI	CATI & CAWI

Table 1: sampling of the EQI over 5 rounds

Note: *wave two included Serbia (with Kosovo), Turkey, and 6 Ukranian regions. †Belgium is sampled at NUTS 2, but EQI reports NUTS 1 levels due to higher political relevance. Similarly, Germany sampled at NUTS 2 in 2021, yet NUTS 1 (Länder) reported in main EQI data. UK included in rounds 1-3 only.

For those interested in temporal analyses, in Table 2, we highlight changes in the sample due to alterations in the NUTS classification over time and/or the inclusion/reduction of countries in the EQI survey. First, in regions of the majority of member countries (15), there are no issues affecting temporal comparisons, and thus any year can serve as a valid baseline anchor to compare the current results with previous ones. Where there are issues to note (12 countries), in most of these cases, the sample change concerns regional splits in the NUTS borders, mainly to include a more specified capital region (Poland, Hungary, Lithuania, Croatia), or EQI sampling moving from NUTS 1 to NUTS 2 between rounds (Netherlands, Sweden, Greece, Slovenia, along with Belgium and Germany), or a combination of the two (e.g. Hungary in 2021). In most of these cases, we propose either comparing the available NUTS 2 EQI data with corresponding NUTS 1 levels⁹ for previsions years or aggregating the NUTS 2 data up to

⁹ For example, in the case of Hungary, the regions of HU21, HU22 and HU23 would all take the common baseline value for HU2 for years when NUTS 1 was sampled and then their individual values from 2017 onward.

NUTS 1 for true 1-1 comparisons. For Belgium and Germany, due to the political relevance of the regions, the EQI data will continue to be reported at NUTS 1 for 2024 to keep consistency with previous rounds.

Member country	start year inclusion in EQI survey	temporal issues?	result
Austria	2010	no	
Belgium	2010	shift to NUTS 2 sampling from 2021	NUTS 1 reported in EQI data compared to keep consistent with previous rounds
Bulgaria	2010	no	
Croatia	2013	HR04 split into HR02, HR05 and HR06 from round 5 onward.	can be compared with baseline HR04. HR03 is consistent for all years.
Cyprus	2021	no	
Czech Rep.	2010	no	
Denmark	2010	no	
Estonia	2021	no	
Finland	2013	between 2013 and 2017 EQI rounds, FI1A, FI13 and FI18 were re-drawn to FI1D, FI1C and FI1B.	FI1D, FI1C and FI1B can only be compared from 2017 onward. FI19 and FI20 are consistent for all years
France	2010	no	
Germany	2010	Shift to NUTS 2 sampling in 2021	NUTS 1 reported in EQI data compared to keep consistent with previous rounds
Greece	2010	shift in data collection from NUTS 1 to NUTS 2 in 2021	NUTS 2 can be compared with baseline NUTS 1 for years prior, or NUTS 2 can be re-aggregated to NUTS 1 for 1-1 comparisons.
Hungary	2010	Shift from NUTS 1 to NUTS 2 sampling in 2017 round. Former HU10 split into HU11 and HU12 from 2021 round.	NUTS 2 can be compared with baseline NUTS 1 for years prior to 2017. HU11 and HU12 compared with former HU10 (<i>Közép-Magyarország</i>) for first three rounds.
Ireland	2013	Complete re-drawing of NUTS 2 between 2017 and 2021 rounds. Former IE01 and IE02 re-drawn as IE04, IE05 and IE06.	IE04, IE05 and IE06 not comparable to 2013 and 2017. Can compare IE04, IE05 and IE06 to country level for rounds 1-3, or re-aggregate to former NUTS 2 regions via post-codes
Italy	2010	no	
Latvia	2021	no	
Lithuania	2021	Formerly one NUTS2 region split into LI01 and LI02 from 2021 round.	NUTS 2 can be compared with baseline country level for years prior
Luxembourg	2021	no	
Malta	2021	no	
Netherlands	2021	Sampled at NUTS 2 from 2013	NUTS 2 can be compared with baseline NUTS 1 for start year of 2010. No issues comparing the 2013 data onward.

Table 2: Issues Concerning	Гетрогаl	Comparisons	by Member	Country
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			PL91 and PL92 can be compared with
		Former PL12 split into PL91 and	common baseline region PL12
Poland	2021	PL92 from 2021 round.	(Województwo Mazowieckie)
Portugal	2010	no	
Romania	2010	no	
Slovak Rep.	2010	no	
			NUTS 2 can be compared with baseline
Slovenia	2021	No NUTS 2 data for earlier years	country level for years prior
Spain	2010	no	
			NUTS 2 can be compared with baseline
			NUTS 1 for years prior, or NUTS 2 can be
		shift in data collection from NUTS	re-aggregated to NUTS 1 for 1-1
Sweden	2010	1 to NUTS 2 in 2021	comparisons.

The cases of Ireland and Finland are more challenging to deal with in over-time comparisons. For two of Finland's regions (FI20 and FI19) there are no issues. However, for the other three NUTS 2 regions, the current data can only be compared from 2017 onward, as there was a complete re-drawing. While it is possible with respondent post-codes to re-aggregate the 2021 data to the former NUTS 2 map, the post-codes are not available for 2017. Thus, we propose that in the case of Finland, the three regions of FI1D, FI1C and FI1B can only be used in temporal analyses from 2017 onward, thus we apply country averages to these regions in the firth three rounds of the published EQI data. With respect to Ireland, there was a complete re-drawing of the former two NUTS 2 Irish regions into three (IE04, IE05 and IE06), none of which correspond with previous boundaries. In the Irish case, several options are possible for those interested in temporal comparisons. One, from the 2021 round onward, the EQI can be re-aggregated to the former two Irish regions via post-codes for full 1-1 comparisons. Two, the current three regions can only be compared from 2021 onward. In the current published EQI data, we elect to do the latter option.

The 2024 EQI¹⁰

The 2024 picture is rather consistent with previous editions of the EQI (see Charron et al. 2014; 2015; 2019; 2022), with a north-western area performing better than the south-eastern part of the EU. There are also significant regional differences in some countries – Italy, Spain,

¹¹ For more details on the methodology of building the index see for example, Charron, Lapuente and Annoni (2019) Charron, Lapuente and Rothstein (2013).

Belgium, Greece, Bulgaria, France, including its overseas regions, and Slovenia, in particular – but as in previous years very little in others, the Nordic countries (save Åland), especially, but also Austria and Germany showing variation within 0.8 standard deviations, despite being federal countries (for full results, see appendix). Slovenia is also a noteworthy case, with the eastern, capital region (SI03) being roughly 0.6 standard deviations above the western region of SI04. Thanks to the new NUTS2 classification in Croatia, for the first time the capital region, Zagreb (HR05) is assessed separately from the other two and scores significantly lower than the mainland region HR06, taken into account the margins of error. Notably, for the fifth consecutive year, the country of Estonia has rising in the data, with the former Soviet Republic now on par with the country average of France.

Figure 3 – Map of the 2024 EQI



Note: Scores are expressed in z-scores, EU average is therefore equal to 0. Positive in blue (negative in red) values reflect higher (lower) than the EU average quality of government. One unit of difference is equivalent to one standard deviation of difference.

Figure 4 shows the distribution of regional scores by country (countries reordered according to their national value from the best performers, left-hand side, to the worst performer, right-hand side). Top regions within each country are shown in green, while poorest regional score is shown in blue, with other regions in grey circles. Regionally weighted country average scores are shown via the triangle. As in all previous years, the Swedish speaking, Finish Island region of Åland (FI20) ranks at the top of the EQI, while the lowest ranking region is Severozapaden (BG31) in Bulgaria. Within-country variation is noticeably high in Italy, where a number of

northern regions improved significantly since the previous round (e.g., Friuli Venezia-Giulia, Trento, Bolzano and Liguria). Spain, France, Belgium, Finland, Portugal, Bulgaria and Greece all demonstrating regional variation of one standard deviation or greater, with the latter (Greece) showing its highest level of regional variation in the data to date, with an over 1.1 standard deviation difference between Ditikí Makedonía (EL53, -0.197) and Athens (EL30, -.1,298).

Figure 4: Country Rank order of EQI Round 5 and regional variation



Note: high/low regions are highlighted. Countries reordered from best (left-hand side) to worst (right-hand side) according to their national average score, indicated by the orange triangle. Dashed horizontal line (y-axis '0') indicates the EU sample mean.

As observed in the previous round, an interesting observation is that the level of QoG in capital regions varies significantly within countries. We observe that Ljubljana, Lisbon, Vilnius, Prague and Madrid are actually the best or second best in the country, while in many other countries capital regions scores in the middle. At the other end, we see several cases where the capital is the poorest performer. Interestingly, poor performing capital regions are observed at both ends of the QoG spectrum. Countries with higher levels of QoG, like Austria, Netherlands, Belgium, and Germany, tend to have capital regions that have the lowest within country ranking, i.e., Vienna, Amsterdam, Brussels, and Berlin regions all have the lowest within-country ranking (although only in the case of Brussels is the difference significant from the next lowest region). Similarly, at the other end of the QoG spectrum, in countries like Greece,

Croatia, Slovakia, and Romania, the capital regions of Athens, Zagreb, Bratislava and Bucuresti-Ilfov also show the lowest levels of QoG.

How closely do Expert and Citizen Assessments of QoG Correspond?

Until the 2021 round, only the member states with multiple NUTS 2 regions were included in the EQI survey. While we analyzed the expert assessments and citizen assessments of quality of government for all 27 EU member states for the 2021 round, we do so again for the post-Covid era as an additional validity check on the measure. In Table 3, we report the correlation (Spearman rank coefficient) of the standardized data for the EQI and WGI measures for each respective pillar. One caveat in comparing the EQI and WGI here is that they are measured in different years (WGI is 2022 and EQI fielded in late 2023) and the underlying questions going into the respectively measures are not the same, thus we do not expect perfect correspondence.

Table 3: Spearman Rank Coefficients for each EQI pillar with corresponding WGI data

Pillar	Spearman rank coefficient	p-value
Quality	0.74	0.0000
Impartiality	0.69	0.0001
Corruption	0.86	0.0000

Note: Spearman rank coefficient ranges from 0-1 with higher values implying closer ranking of the two measures. n=27

Overall, we observe that in all cases, the EQI and WGI measures are positively and significantly correlated (p<0.001 in all cases). The strongest correspondence is in the corruption pillar (Spearman rank = 0.86), while the weakest correspondence is in the impartiality pillar (Spearman rank = 0.69). Finally, Figure 3 shows a scatterplot of the combined EQI and WGI on the y-axis and x-axis respectively. The closer to the dashed line, the greater the correlation between the citizen and expert assessments. The combined QoG data show a rather high level of correspondence between the two measures (Spearman rank = 0.90, p<0.0001), which corroborates findings from previous years (see Charron 2016; Charron et al 2022). While we observe especially strong correspondence among the top third of the ranked counties, as well as some the bottom (e.g., Bulgaria, Greece, and Poland), there is the least correspondence in the two types of assessments in Italy (where citizens are much more positive than experts) and Croatia (vice versa).

Among the five smaller countries not included in rounds 1-3 of the EQI survey, we again observe overall a very high degree of correspondence between the two forms of assessments. The standardized score of Cyprus for example is exactly the same for both sources, and the relative EU rank of Latvia is equal for both measures, while Luxembourg is nearly identical (ranked 2nd by citizens and 3rd by experts). The country with the lowest correspondence between the EQI and WGI is Malta, which overall, would be ranked 24th according to the citizens, yet is ranked 18th overall. This discrepancy is largely driven by the impartiality pillar, where Maltese citizens perceive the next lowest degrees of impartiality in their institutions in the EU after Croatians. Overall, however, we see these data as showing a high degree of validity to the measure in that we come to similar conclusions/rankings despite two sets of diverse assessors, highlighted in overall comparisons inf Figure 5.

Figure 5: Citizen and Expert Assessments of Quality of Government in 27 EU Member States – round 5



Note: EQI is impartiality, quality and corruption pillars combined, while WGI is the 'control of corruption', 'rule of law', 'voice and accountability' and 'government effectiveness' measures combined. Each measure is z-score standardized (mean=0, s.d.=1) and then re-standardized after aggregating. EQI measures are aggregated from the micro-data using post-stratification and design weights.

Assessing the new EQI item: vote buying experiences

New to this round is a third 'experience-based' corruption item to the two other items on being approach and self-reported paying of bribes for public services. The question formulation is standard from other sources (Afrobarometer, Latinobarometer) used in the literature for the sake of comparison (e.g., Jensen and Justesen 2014; Carlin and Moseley 2015). The question is as follow: "From what you remember, in the run-up to the last parliamentary election on (*insert country specific month/year by country*), did anyone offer you or anyone in your family a gift, money or personal favor in return for your vote in the election?" (1=yes, 2=No, 99=DK/refuse). The analysis shows that 6% of the sample answered 'yes', 92.2% answered 'no', while 1.8% answered 'don't know/refuse'. As in the case with the other two items, the regional means are calculated as the ratio of 'yes' over the 'yes'+'no' responses, with the 'don't know/refuse' responses dropped due to uncertainty about respondents' intent, giving us a sample mean of 6.1% (5.5% if weighted by country population). Figure 6 shows the country averages, adjusting for design and post-stratification weights. We observe that in all countries, there are at least 2% that answer 'yes', thus implying that some respondents interpret the question rather liberally. Yet in 7 member countries, over 10% of respondents answered in the affirmative (Greece, Estonia, Croatia, Romania, Malta, Bulgaria, and Cyprus), thus indicating that the act of electoral clientelism is not germane only in more 'developing' areas of the world.



Figure 6: Self-reported experience with vote buying in EU countries.

Looking at regional estimates of the measure, we see that rates of vote buying experiences are lower than the other two indicators of petty corruption experiences, yet strongly correlated across NUTS regions, showing in Table 4. Figure 7 highlights the bivariate correlation between having paid a bribe for a public service in the past 12 months and being approached in a vote buying exchange.

Variable	Mean	Std.Dev.	Min	Max
Asked to pay bribe	.103	.057	.029	.316
paid bribe	.107	.066	.006	.348
Vote buying	.061	.039	.002	.241
Pairwise correlations	paid	Vote buy		
Asked to pay bribe	0.867	0.788		
Paid bribe		0.643		

 Table 4: regional corruption experiences (unweighted)

Figure 7: Vote buying and petty corruption experiences across EU regions



Notable regional trends over time

Given the EQI now includes five rounds ranging 14 years in time, we can elucidate more valid temporal patterns in the data. First, in Table 5, we observe that the 2024 data is highly correlated with previous round, yet each consecutive round going back in time is less correlated

with the current level of QoG in EU regions, suggesting that while this variable is 'sticky' over time, there are observable changes with each passing round.

EQI round	2024	2021	2017	2013	2010
(1) 2024	1.000				
(2) 2021	0.939	1.000			
(3) 2017	0.919	0.956	1.000		
(4) 2013	0.911	0.943	0.946	1.000	
(5) 2010	0.896	0.925	0.914	0.955	1.000

Table 5: Pairwise correlations of EQI 2024 and previous rounds

Next, we focus on the more recent trends from the previous round, as well as round 3. Figure 8 shows regions that made sizable improvements (0.5 standard deviations or above) in between round 4 and 5 (left side) as well as between round 3 and round 4 (right side) to elucidate consistent trends. In all, 18 and 11 regions made such improvements. The most significant improver (1.03 increase) between the past two rounds was the Italian island region of Sardegna (ITG2), while the greatest improvement from round 3 to 5 is Liguria (ITC3) (1.22 increase). The map shows that most of the positive improvements are in Southern Europe, with the exception of the recent jump in Mellersta Norrland (SE32). The data also show that two regions increased by 0.5 standard deviations in these two consecutive rounds –Liguria (ITC3) and Marche (ITI3), both in Italy. Their progress is highlighted in Figure 9

Figure 8: significant improvers in past two EQI rounds



Note: left side is increases of 0.5 s.d. from 2021 to 2024, while right side is between 2017 to 2021

Figure 9 – Progress in EQI scores in two standout regions: 2017-2024



Moving to the degree of regional divergence/convergence of QoG over time within member states, Italy remains the country with the greatest degree of within-regional variation in 2024, and 2024 demonstrates a noteworthy *increase* in within-country variation, largely stemming from several northing regions showing significant improvement, led by Friuli Venezia-Giulia (ITH5). Figure 10 shows the over-time regional trends within Italy.



Figure 10 – Regional variation in Italy over 5 rounds of the EQI

In addition, we highlight the regional trends in the country of Croatia in Figure 11, which recently split the previous region of HR04 into three. Whereas in previous rounds, the regional variation was quite minimal, it is nearly 0.7 standard deviations between HR06 and the capital region of Zagreb (HR05), which used to be combined into the same region. Separating the capital from adjacent areas thus provides a more nuanced picture of the geography of QoG within even this smaller, politically centralized country.



Figure 11: Regional trends in Croatia and effects of NUTS 2 splits

Note: Croatia not included in 2010 round, thus no regional variation is observed. Dashed lines indicate the split of former HR04 into three regions (HR02, HR05 and HR06)

Trends in Experience and Perceptions of Regional QoG pre/post Covid-19 onset

In this section, we offer a 'birds eye' view of differences between previous (pre-Covid) and the 2021 EQI waves, along with the aftermath in 2024. In many respects, the 2021 round was a departure from previous rounds. Europeans observed their national, regional, and local governments in action in the fight to contain the virus. Comparing the 2021 round with the previous one, this was reflected in several of the indicators on whole. For example, in Table 6, we see that the perceptions of quality in public service delivery and corruption were improved across the board in the EQI round fielded during the Covid- 19 pandemic compared to 2017, although interestingly, perceptions of impartiality fell in all services. Looking at the

average regional scores of the 2024 round, we observe a 'regression to the mean' of sorts with respect to perceptions of quality in services, as the quality of public services were rated lower in the 2024 round compared with the 2021 round. However, the perceptions of the quality of health care and education are still rated more positively in this round compared with the 2017 round. We observe a similar regression back to the mean of sorts with respect to impartiality perceptions, yet in the opposite direction. In terms of perceptions of corruption however, the improved perceptions in the 2021 in fact remain in 2024 or have improved slightly (education and law enforcement) compared with 2017.

Variable	2017	2021	Diff 2021- 2017	2024	Diff 2024 – 2017	Diff. 2024 – 2021
QUALITY						
Education	6.437	6.692	0.255	6.648	0.211	-0.046
Health Care	6.207	6.553	0.346	6.235	0.014	-0.318
Law enforcement	6.558	6.667	0.109	6.575	-0.001	-0.108
IMPARTIALITY						
Education	6.113	5.994	-0.119	6.112	-0.001	0.118
Health Care	5.587	5.477	-0.110	5.657	0.069	0.180
Law enforcement	6.317	6.101	-0.216	6.230	-0.113	0.129
CORRUPTION						
Education	7.117	7.317	0.200	7.346	0.129	0.029
Health Care	6.499	6.824	0.325	6.811	0.312	-0.013
Law enforcement	6.747	6.859	0.112	6.892	0.142	0.031

 Table 6: Regional Averages of 3 EQI Pillars by Service (Raw Scores)

Note: averages are across regions for all EQI regions. Higher scores equate to higher QoG on all indicators, scored 1-10. Columns 4 and 5 compare the means of 2024 with those of 2017 and 2021 respectively. Most significant positive (negative) change denoted in red (blue).

Table 7 highlights macro-trends in corruption experiences across regions. In terms of corruption experiences, the 2021 round marked the lowest percentage of EU citizens claiming that they had direct experiences in paying a bribe in the past 12 months in exchange for public service in question (regional average = 6.2%), as well as the lowest average of citizens saying someone had requested a bribe (4.2%) to date. The 2024 round marks a significant increase from the 2021 round where citizens were highly restricted from contact with public services, and we see rates of paying and being asked to pay at regional averages of 10.5% and 10.2% respectively. Figure 12 shows scatterplots of the changes from 2017 to 2021 (left side) where the vast majority of regions had a decrease in bribe rates, to 2021-2024 (right side), where most regions saw a sizable increase in experiences with petty corruption.

Corruption experiences	Regional Mean	Std. dev.	Min	Max
Paid any bribe				
2017	.093	.089	0	.385
2021	.062	.051	0	.231
2024	.105	.066	.006	.348
Asked to pay				
2017	.072	.061	0	.361
2021	.057	.041	0	.243
2024	.102	.057	.029	.316

Table 7: Regional Averages of Corruption Experiences

Note: 5 smaller member states not included to better match samples across years.

Figure 12: Petty Corruption experiences before and after Covid-19 in EU regions



Note: regional estimates aggregated from microdata using post-stratification weights. Regions above (below) the diagonal line had an increase (decrease) in bribe rates compare with the previous round.

Discussion

Building on the previous rounds of the European Quality of Government Index (EQI), recent years have witnessed a rapid increase in the research within social sciences focused on exploring the causes and consequences of quality of government at sub-national level (see i.e. Agerberg 2017; Rodríguez-Pose 2020; Barbero and Rodríguez-Crespo 2022; Bauhr, Charron and Wängnerud 2024; Bellantuono et al 2023; Ríos et al 2023, Savoia et al 2023; Charron and Schwenk 2023). In order to further scholarship on regional quality of government, this paper presents and discusses some of the key results of the fifth round of the EQI.

The European picture of quality of government that emerges for this round 5 is one of stability but also of change. On the one hand, the best and worst performing regions are respectively, the Finish region Åland and the Bulgarian Severozapaden, as in all previous rounds. Northern and Western European regions perform, on average, better than Southern and Eastern, also in line with the past rounds of the survey. On the other hand, there are some changes over time, and, in particular, we detect a remarkable improvement in many Southern European regions, particularly in Italy and Spain. There are also important shifts in the disparity and relative ranking of several important regions across Europe.

Mapping this is important because quality of government affects the quality of life in a territory. Research from the past decades has consistently shown that quality of government is closely linked to health, the environment, social policy, and poverty, and thereby have important implications for human well-being, broadly conceived (Bagenholm et al 2021). Yet, while most previous literature has focused mostly on cross-country comparisons, the EQI allows us to explore subnational differences in socioeconomic variables, including everything from trade (Barbero et al. 2021) to happiness (Shiroka-Pula, Bartlett, and Krasniqi 2023).

Interestingly, we also see a correspondence between citizens' evaluations of quality of government and the ones made by experts, such as the World Bank's. That is, both citizens and experts share a common view on the good (or bad) state of the provision of basic public services in different European territories. Obviously, all of them could be misled. Yet, in order to sustain that, one should first have a plausible hypothesis on why the misjudgments made by individuals in one study correlate so highly with those made by other individuals in other studies following different methodologies and aggregating different questions. Moreover, while 'bandwagoning effects' are plausible among expert assessments, it is unlikely that citizen broadly speaking are aware of such measures and thus the high degree of correspondence among the two types of measures implies a high degree of measurement validity. In addition, as the growing literature on quality of government presented above indicates, the perceptions citizens have of their regional quality of government does seem to precede, and not only, follow, changes in socioeconomic variables so diverse such as trade and happiness and women's empowerment. In other words, the round 5 of the EQI presented in this paper provides further evidence for the theory that perceptions of quality of government are shared by both the public at large and experts.

In the 2024 data, if we compare the results of the 2024 survey to the previous 2021 wave, we also note that the previous round of the survey conducted during the pandemic, gave some (up to a certain point, unfounded) reasons for optimism. The 2021 survey showed that citizens' perceptions of the QoG as well as their experiences with public services improved overall. This was consistent with accounts of the increased salience or performance of domestic institution in times of crises (Hetherigton and Husser, 2012; Hetherington and Rudolph 2008), as well as a rally around the flag" effect in the face of a common threat (Mueller 1970; Bol et al. 2020).

Unfortunately, these hypotheses find some support in the 2024 data presented here. While the 2021 round marked the lowest percentage of EU citizens claiming that they had direct experiences of bothe paying an being asked to pay bribe in the past 12 months in exchange for public service, the 2024 round marks a significant increase. This suggests that the lower levels in the 2021 data may partly have been explained by the exceptional circumstances during the Covid-19 pandemic.

This paper leaves with some important puzzles: why are some EU territories pulled apart in quality of government while others are converging? How and why do some regions succeed in maintaining relatively good quality of government in countries that are affected by democratic backsliding? The paper also leaves us with some intriguing results that deserve further research. What explains the remarkable variation in some countries (first and foremost, Italy, but also Spain, France, Belgium, Finland, Portugal, Bulgaria, and Greece) but not in all? And moreover, why do some regions in the same country, such as Italy, show remarkable improvements (Liguria, Friuli Venezia-Giulia and Sardegna) while others show considerable backsliding (Sicilia). Furthermore, why do some capital regions rank as the best or second best in their countries (such as Ljubljana, Lisbon, Vilnius, Prague and Madrid) while others (such as Vienna, Amsterdam, Brussels or Berlin in higher-QoG countries or Athens, Zagreb, Bratislava, Sofia and Bucuresti-Ilfov in lower-QoG ones) are among the worst performers in their countries? Why do over 10% of respondents in some EU countries report to have suffered (themselves or their families) from attempts of vote buying in the latest elections, including Greece, Estonia, Croatia, Romania, Malta, Bulgaria, and Cyprus? We hope that, in providing this freely available indicator, we can encourage its use for scholars to address these, as well as other, interesting research questions.

References

Acemoglu, D., & Robinson, J. (2008). The role of institutions in growth and development. World Bank

Adcock, Robert, and David Collier (2001). "Measurement validity: A shared standard for qualitative and quantitative research". In: American political science review, pp. 529–546.

Agerberg, M. (2017). Failed expectations: Quality of government and support for populist parties in Europe. *European Journal of Political Research*, *56*(3), 578-600.

Barbero, J., & Rodríguez-Crespo, E. (2022). Technological, institutional, and geographical peripheries: regional development and risk of poverty in the European regions. *The Annals of Regional Science*, 69(2), 311-332.

Bågenholm, Andreas, Monika Bauhr, Marcia Grimes, and Bo Rothstein. 2021. The Oxford Handbook of Quality of Government. Oxford: Oxford University Press.

Bauhr, Monika (2017). "Need or greed? Conditions for collective action against corruption". In: Governance 30.4, pp. 561–581.

Bauhr, Monika and Nicholas Charron. 2020. "The EU as a Savior and a Saint? Corruption and Public Support for Redistribution." Journal of European Public Policy 0 (0): 1–19. https://doi.org/10.1080/13501763.2019.1578816.

Bauhr, M., & Charron, N. (2023a). 'It's the quality of government stupid' explaining patterns in support for far right in the 2022 French presidential election. Electoral Studies, 84, 102644.

Bauhr, M., & Charron, N. (2023b). Europe around the corner? How border proximity and quality of
government explains European identity. European Union
Politics, 0(0). https://doi.org/10.1177/14651165231216882

Bauhr, Monika, Nicholas Charron and Lena Wängnerud (2024). Will women's representation reduce bribery? Trends in corruption and public service delivery across European regions. Forthcominig in *Political Behaviour*

Barbero, J., Mandras, G., Rodríguez-Crespo, E., & Rodríguez-Pose, A. (2021). Quality of government and regional trade: evidence from European Union regions. Regional Studies, 55(7), 1240-1251.

Bellantuono, L., Palmisano, F., Amoroso, N. *et al.* Detecting the socio-economic drivers of confidence in government with eXplainable Artificial Intelligence. *Sci Rep* **13**, 839 (2023). https://doi.org/10.1038/s41598-023-28020-5

Bol, D., Giani, M., Blais, A., & Loewen, P. J. (2021). The effect of COVID-19 lockdowns on political support: Some good news for democracy? *European Journal of Political Research*, *60*(2), 497–505.

Burlina, C., & Rodríguez-Pose, A. (2020). Institutions and the uneven geography of the first wave of the COVID-19 pandemic. LSE. Paper No. 16 Geography and Environment Discussion Paper Series

Carlin, R. E., & Moseley, M. (2015). Good democrats, bad targets: Democratic values and clientelistic vote buying. *The Journal of Politics*, 77(1), 14-26.

Charron, Nicholas, Lewis Dijkstra, and Victor Lapuente (2014). "Regional governance matters: Quality of government within European Union member states". In: Regional studies 48.1, pp. 68–90.

Charron, Nicholas, Lewis Dijkstra, and Victor Lapuente (2015). "Mapping the regional divide in Europe: A measure for assessing quality of government in 206 European regions". In: Social indicators research 122.2, pp. 315–346.

Charron, Nicholas, Victor Lapuente, and Paola Annoni (2019). "Measuring quality of government in EU regions across space and time". In: Papers in Regional Science 98.5, pp. 1925–1953.

Charron, Nicholas, Victor Lapuente, and Bo Rothstein (2013). Quality of Government and Corruption Form a European Perspective: A Comparative Study of Good Governance in EU Regions. Edward Elgar Publishing.

Charron, N., Lapuente, V., Bauhr, M., & Annoni, P. (2022). Change and Continuity in Quality of Government: Trends in subnational quality of government in EU member states. *Investigaciones Regionales-Journal of Regional Research*, 2022(53), 5-23.

Charron, Nicholas, Victor Lapuente and Monika Bauhr (2021). Sub-national Quality of Government in EU Member States: Presenting the 2021 European Quality of Government Index and its relationship with Covid-19 indicators. *QoG working paper series 2021:4.* https://www.gu.se/en/quality-government/publications/working-papers

Charron, N., & Schwenk, J. (2023). Inclusive candidate selection and corruption: evidence from Spanish regions. *West European Politics*, *46*(7), 1396-1423.

Heerwegh, Dirk (2009). "Mode differences between face-to-face and web surveys: an experimental investigation of data quality and social desirability effects". In: International Journal of Public Opinion

Hetherington MJ and Husser JA (2012) How Trust Matters: The Changing Political Relevance of Political Trust. American Journal of Political Science 56 (2): 312–325.

Hetherington MJ and Rudolph TJ (2008) Priming, Performance, and the Dynamics of Political Trust. The Journal of Politics 70 (2): 498–512.

Holmberg, Sören, Bo Rothstein and Naghmeh Nasiritousi, 2009. "Quality of Government: What You Get", *Annual Review of Political Science* 12: 135-161

Iammarino, S., Rodriguez-Pose, A., & Storper, M. (2019). Regional inequality in Europe: evidence, theory and policy implications. *Journal of economic geography*, *19*(2), 273-298.

Jensen, P. S., & Justesen, M. K. (2014). Poverty and vote buying: Survey-based evidence from Africa. *Electoral studies*, *33*, 220-232.

Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi (2009). "Governance matters VIII: aggregate and individual governance indicators, 1996-2008". In: World bank policy research working paper 4978.

Karahasan, B. C., & Pinar, M. (2023). Institutional Quality and Geography of Discontent in the EU. *JCMS: Journal of Common Market Studies*.

Kreuter, Frauke, Stanley Presser, and Roger Tourangeau (2008). "Social desirability bias in cati, ivr, and web surveysthe effects of mode and question sensitivity". In: Public opinion quarterly 72.5, pp. 847–865.

Mueller, J. E. (1970). Presidential Popularity from Truman to Johnson1. *American political science review*, 64(1), 18–34.

Reginato, E., Massa, L., Fadda, I., & Pavan, A. (2023). Quality of Government and Well-being: An Empirical Analysis of 158 European Regions. International Journal of Business and Management, 18(4), 210-227.

Rios, V., Beltrán-Esteve, M., Gianmoena, L., Peiró-Palomino, J., & Picazo-Tadeo, A. J. (2023). Quality of government and women's political empowerment: Evidence from European regions. *Papers in Regional Science*, *102*(6), 1067–1096. https://doi.org/10.1111/pirs.12761

Rodríguez-Pose, A. (2013). Do institutions matter for regional development? Regional Studies, 47(7), 1034–1047. https://doiorg/10.1080/00343404.2012.748978

Rodríguez-Pose, A., & Garcilazo, E. (2015). Quality of government and the returns of investment: Examining the impact of cohesion expenditure in European regions. Regional Studies, 49(8), 1274–

1290. https://doi.org/10.1080/00343404.2015.1007933

Rodríguez-Pose, A. (2020). Institutions and the fortunes of territories. *Regional Science Policy & Practice*, 12(3), 371-386.

Rothstein, B., & Teorell, J. (2008). What Is Quality of Government? A Theory of Impartial Government Institutions. *Governance*, *21*(2), 165–190. https://doi.org/10.1111/j.1468-0491.2008.00391.x

Rodrik, D. (2004). Getting institutions right. CESifo DICE Report, 2, 1-13

Savoia, F., Bandini, F., Bolzani, D., & Grassi, E. (2023). Quality of institutions and employment dynamics of social enterprises: Evidence from Italian regions. *Finance Research Letters*, 104080.

Shiroka-Pula, J., Bartlett, W., & Krasniqi, B. A. (2023). Can the government make us happier? Institutional quality and subjective well-being across europe: A multilevel analysis using eurobarometer survey 2019. Applied Research in Quality of Life, 18(2), 677-696.

Appendix

Table A1: EQI round 5 sample and NUTS level by country

country	NUTS level sampled	Number of NUTS regions	Number of respodents
Austria	2	9	5484
Belgium	2	11 (3)	6760
Bulgaria	2	6	3687
Croatia	2	4	2502
Cyprus	1	1	732
Czechia	2	8	5060
Denmark	2	5	3128
Estonia	1	1	1078
Finland	2	5	2848
France	2	27	15648
Germany	1	16	9951
Greece	2	13	8246
Hungary	2	8	4947
Ireland	2	3	1824
Italy	2	21	13220
Latvia	1	1	1051
Lithuania	2	2	1233
Luxembourg	1	1	739
Malta	1	1	746
Netherlands	2	12	7367
Poland	2	17	10460
Portugal	2	7	4394
Romania	2	8	4959
Slovakia	2	4	2450
Slovenia	2	2	1273
Spain	2	17	10429
Sweden	2	8	5011
EU27			135227