2023 OECD OURdata Index

Open, Useful and Re-usable data Index



OECD Public Governance Policy Papers

2023 OECD Open, Useful and Re-usable data (OURdata) Index

Results and Key Findings



OECD Public Governance Policy Papers

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This paper was authorised for publication by Elsa Pilichowski, Director, Public Governance Directorate.

Abstract

Open government data has become a vital instrument for addressing both longstanding and emerging policy issues. In particular, the recent pandemic and the green transition have underscored the need for governments to ensure access to timely, relevant, and high-quality data to foster resilience and facilitate a comprehensive whole-of-society response. This paper presents the main findings of the fourth edition of the OECD Open, Useful, and Re-usable data (OURdata) Index for 2023, which benchmarks efforts made by governments to design and implement national open government data policies. It encompasses over 670 data points collected from 36 OECD countries and 4 accession countries throughout 2022.

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Introduction

Launched in 2015, the Open, Useful and Re-usable data (OURdata) Index benchmarks efforts made by governments to design and implement national open government data policies. With subsequent editions released in 2017 and 2019, the Index has remained a valuable resource for policymakers and serves as a key public governance indicator, assessing the progress governments have made in ensuring open data to support policy reform.

Open government data has become a vital instrument for tackling both longstanding and emerging policy issues. Governments today grapple with numerous challenges, ranging from public health emergencies and energy crises to extreme weather events. The COVID-19 pandemic, in particular, highlighted the need for governments to ensure access to timely, relevant, and high-quality data to foster resilience and facilitate a comprehensive whole-of-society response.

These challenges revealed that open government data is critical for strengthening democracy in the digital age. Access to public sector information in open data formats fosters transparency, empowers citizens to hold governments accountable and to monitor policy progress in areas such as public procurement and budgeting, anti-corruption, climate, and investments in public infrastructure. It also plays a crucial role in citizen participation in public decision-making, and in fostering collaboration, engagement, and the co-creation of public services, often together with civictech and govtech actors. By offering a source of reliable facts in an increasingly polarised information environment, it can help counter the damaging effects of misinformation and disinformation. Overall, it can help support levels of public trust in institutions.

Beyond its role to strengthen democracy and public governance, open government data remains important for fostering innovation, including the development of new public and private sector services and business models. It provides smaller businesses and startups with open, free, and non-discriminatory access to valuable government data, allowing them to compete with larger companies and driving overall growth and innovation. As a digital public good, it helps in levelling the playing field for data access and sharing, contributing to a dynamic data ecosystem where a diverse range of actors can benefit from its use.

Overall, open government data is a foundational element for advanced digital governments. By increasingly integrating with data-intensive systems like Artificial Intelligence (AI), open government data becomes a key input for data-driven decision-making within and outside the government, feeding into better policies and services. It also contributes to the trustworthiness of automated decisions by serving as a reliable and traceable data source.

Eight years after the publication of the first OURdata Index, the evolution of open government data and its contribution to addressing policy challenges at a global scale are clear. However, it is also evident that governments' efforts need to be sustained in the long run to secure expected benefits. In this context, the sustainability and monitoring of open government data policies should remain a priority for OECD member and partner countries. The Index presented in this paper is meant to help governments in this endeavour.

The OECD Open, Useful and Re-usable data (OURdata) Index

Developed under the lead of the OECD Working Party for Senior Digital Government Officials (E-Leaders), the OECD Open, Useful and Re-usable data (OURdata) Index is part of the wider OECD work on digital government, with many interlinkages with broader public governance priorities. The Index was conceived as an instrument to support policymakers in monitoring the design and implementation of national open government data policies. The goal is to encourage alignment with OECD standards and good practices outlined in the OECD Recommendations on Digital Government Strategies (2014[1]) and on Enhancing Access to and Sharing of Data (2021[2]).

Additionally, open data is explicitly acknowledged in other OECD instruments such as the OECD Recommendations on Public Integrity (2017_[3]), on Open Government (2017_[4]) and on the Governance of Infrastructure (2020_[5]). The OECD Recommendations on Budgetary Governance and on Public Procurement also highlights the importance of ensuring "that budget [...] data are open, transparent and accessible", comparable, accessible, and clear to, among others, "promote effective decision making, accountability and oversight" (2015_[6]), and of allowing "free access, through an online portal, for all stakeholders [...] to public procurement information [...] making clear that published data should be meaningful for stakeholder uses" (2015_[7]).

The OECD definition of open data is "non-discriminatory data access and sharing arrangements where data is machine-readable and can be accessed and shared free of charge and used by anyone for any purpose, subject at most to requirements that preserve integrity, provenance, attribution and openness" (2021_[2]). The OURdata Index assesses policies for open government data, i.e. government data made available as open data. Government data refers to any data produced and held by public bodies at the central/federal level of government, and in some cases, depending on national context, data aggregated by and collected from local and regional levels, for example mobility data. The index does not measure the impact of open government data, but rather focuses on assessing governments' efforts to create the conditions necessary for making open data available and enable and encourage its reuse.

The composite OURdata Index is based on the same overall methodology described in previous OECD work (Lafortune, 2018_[8]) and consists of three pillars and nine sub-pillars (see Table 1). The three main pillars of the OURdata Index are:

- **Pillar 1: Data availability:** Measures the extent to which governments have adopted and implemented formal requirements to publish open government data. It also assesses stakeholder engagement for identifying data demand and the availability of high-value datasets as open data. For example, this pillar assesses if a country has an open data strategy.
- Pillar 2: Data accessibility: Measures the availability of requirements to provide open data in reusable formats, and the extent to which high-value government datasets are provided in open,
 timely and reusable formats, with good metadata quality, and through Application Programming
 Interfaces (APIs). It also assesses stakeholder engagement on the central open data portal and to
 improve data quality. For example, the pillar measures the percentage of high-value open datasets
 that are accessible through a central open data portal.
- **Pillar 3: Government support to data reuse:** Measures the extent to which governments play a proactive role in promoting the re-use of open government data inside and outside government. For example, it looks at events and partnerships with civil society and business actors to raise awareness about open government data and encourage re-use.

Table 1. Structure of the OURdata Index

Composite:	OURdata Index								
3 pillars	1. Data availability	2. Data accessibility	3. Government support to data-reuse						
9 sub-pillars:	1.1. Content of the open by default policy	2.1. Content of the free and open access to data policy	3.1. Data promotion initiatives and partnerships						
	1.2. Stakeholder engagement for data release	2.2. Stakeholder engagement for data quality and completeness	3.2. Data literacy programmes in government						
	1.3. Implementation (Availability of high-value datasets)	2.3. Implementation (Accessibility of high value datasets)	3.3. Monitoring impact						

Data for the 2023 OURdata Index were collected through the OECD Survey on Open Government Data in 2022. The survey covers the period 2020-2021, which implies that new policies or practices implemented after this period are not captured by the results. This survey also underwent a series of revisions to reflect advancements in open data policies and ensure the relevance of the OURdata Index as a reliable indicator and policy instrument for the years to come. The survey collecting the data was launched in May 2022, with responses received from 36 OECD countries and four accession countries (see full list in Methodological note). The primary respondents were government officials responsible for data or open government policies.

Due to changes in the questions and factors used for the Index sub-pillars, the 2023 OURdata Index results cannot be compared directly at a detailed country level to earlier versions. Yet, as the Index still measures the design and implementation of open government data policies, including in terms of governance arrangements and concrete practices, overall comparison at the composite level can still be made. If countries want to do a direct comparison of their individual results over time, they can look at the mapping of questions compared to earlier versions. For more information on the methodology and underlying data, and its comparison to other international open data indicators, see Methodological note.

Key findings

- The best performing countries in the 2023 OURdata Index are Korea, France, Poland, Estonia, Spain, Ireland, Slovenia, Denmark, Sweden, and Lithuania. These countries demonstrate a comprehensive approach to open data initiatives with balanced performance across the three pillars of the Index. Most of these countries perform well in everything from having an open data strategy and legal requirements to publishing high-quality data and engaging with stakeholders both within and outside of government to promote data re-use.
- OECD countries perform significantly better in the pillars on data accessibility and availability compared to the pillar on government support for data re-use. This is in line with previous editions of the Index and indicates that more could be done by governments to partner and engage with external stakeholders and potential data users to deliver better policies and services.
- The lack of systematic engagement with potential data users and external stakeholders
 remains an obstacle preventing OECD countries from fully realising the benefits of open
 government data. Aspects related to stakeholder engagement across all three pillars of the
 OURdata Index are relatively less developed compared to other areas, such as data publication
 and the formulation of legal requirements. This represents a clear area for improvement.
- Further efforts are also needed to monitor the impact of open data on public sector performance and the economy and society at large. Results show that there are still large gaps between countries in this area, which may be attributed to the lack of international standards and guidance on how to quantify the monitoring of the impact of open data.
- Only 48% of high-value datasets are available as open data across OECD countries. High-value datasets refer to 82 datasets across 10 high-value categories defined by the OECD to enable meaningful international comparison of open data implementation (see full list in Annex B). The list is based on the original G8 Open Data Charter and informed by recent international developments, such the EU Directive on Open Data. The list is not exhaustive.
- While the COVID-19 pandemic positively influenced the publication of open health data, only 43% of datasets in this category are available today. This signals that more could be done to collaborate with and encourage the public health sector, including at local/regional levels of government and with private health sector actors as relevant, to encourage the release of these data on a systematic basis at national level.
- High-value datasets related to government finances and public accountability are rarely available. Countries perform relatively better in making statistics and geospatial data available, whereas weaker performance include data related to the justice, education, and health sectors, and to government accountability. On average only around 30% of data related to public procurement, lobbying, government budget, company registers are available in open data formats. This shows the relevance of OECD countries further connecting the open government data agenda to other public governance areas such as public procurement, public sector performance, public sector integrity, and anti-corruption efforts.
- The availability of open green data could be further advanced. While relevant data such as geospatial data and mobility data are more often available, the green agenda requires a comprehensive approach spanning across all relevant datasets. This includes more efforts to ensure that data related to earth observation, environment, and meteorological data ranging

- from land use to air quality to climatological observations is systematically made available in high-quality formats for reuse.
- OECD countries have improved the quality of open government data, an important capability
 considering recent advancements in Artificial Intelligence (AI). The evolving landscape of AI
 applications places a premium on the quality of the data it relies upon. Relevant factors here include
 ensuring data are provided in open, non-proprietary file formats and that they are up to date, which
 is the case for 80-89% of high-value datasets published as open data by OECD countries. Areas
 to improve include metadata quality and API access, which are currently only implemented for
 around 50% of datasets.

Results and key findings

Korea and France remain the two top performers in the 2023 OURdata Index followed by Poland, Estonia, Spain, Ireland, Slovenia, Denmark, Sweden, and Lithuania. These ten countries score relatively high across all three pillars, a performance which is indicative of a more comprehensive approach to open data initiatives, as per the OECD frameworks.

Compared to the 2019 OURdata Index, Spain, Ireland, and Slovenia have remained in the top ten, which demonstrates sustained policy efforts. Large progress over time can be seen for Estonia, Denmark and Sweden that have moved from below the OECD average in 2019 to well above the OECD average in 2023. This can be attributed to changes in the methodology (see Annex B), attributing a more balanced emphasis on implementation as well as on central governance, and to improved policies and initiatives in 2020-2021.

Figure 1 illustrates the composite OURdata Index results by country, where each score ranges from 0 to 1. The OECD average for the composite score is 0.48, with a maximum value of 0.91 (achieved by Korea). Except for Korea, Norway, Canada, and Colombia, all twelve countries scoring above the OECD average are also EU Member states. The new EU Open Data Directive from 2019, transposed into national laws in 2021, is a forward-looking instrument and likely to have contributed to this performance.

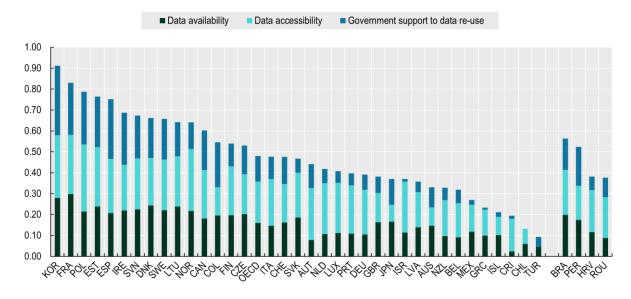


Figure 1. 2023 OURdata Index, results by country

Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Table 2 and Figure 2 present summary statistics and the OECD average values for the three pillars. Two main conclusions can be drawn:

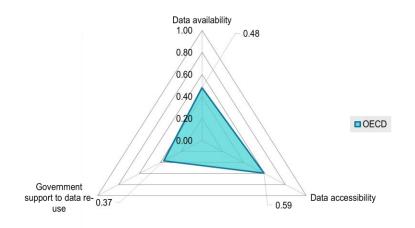
- First, like previous OURdata Index editions, countries perform better in data availability and data accessibility compared to government support for data re-use, with OECD averages of 0.48, 0.59, and 0.37, respectively.
- Second, there is greater variation in countries' performance in government support for data re-use, with the standard deviation reaching 0.27. This indicates that there are larger gaps between countries in terms of their approach to data re-use.

Table 2. Summary statistics for the OURdata Index results

Pillar	Pillar 1. Data availability	Pillar 2. Data accessibility	Pillar 3. Government support to data re-use
OECD mean	0.48	0.59	0.37
Maximum value	0.91	0.96	1.00
Minimum value	0.07	0.00	0.00
Standard deviation	0.20	0.22	0.27

Source: OECD (2022), Survey on Open Government Data 5.0

Figure 2. OURdata Index three pillars, OECD average



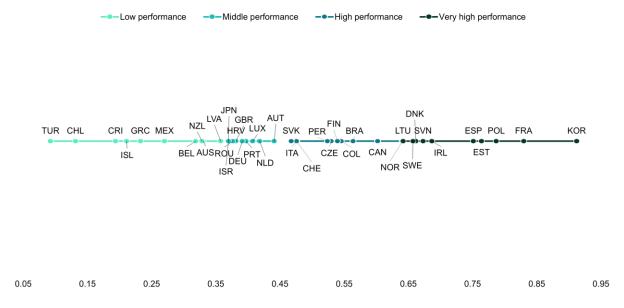
Source: OECD (2022), Survey on Open Government Data 5.0

Figure 3 shows the aggregated score of the OURdata Index divided into four categories. The categories: are Very high performance (countries performing in the top 25%), High performance (countries who score in the top 50-75%), Middle performance (countries scoring in the 25-50%), and Low performance (score in the bottom 25%). The categorisation is made by grouping countries that perform above or below a certain threshold of the composite Index results and therefore reflect different levels of open data policy maturity:

• Very high performance: Korea, France, Poland, Estonia, Spain, Ireland, Slovenia, Denmark, Sweden, and Lithuania. Countries in this group have implemented a comprehensive approach to open data initiatives, which is reflected in the high composite Index score. Importantly, compared to other countries these countries tend to engage more with data users and stakeholders, and in general secure efforts on promoting data re-use.

- High performance: Norway, Canada, Colombia, Finland, Czechia, Italy, Switzerland, and Slovak Republic, Brazil, and Peru. Most countries in this category perform relatively close to the OECD average (0.48), with the exception of some countries (e.g. Norway and Canada) close to the very high performance group.
- **Middle performance:** Austria, Netherlands, Luxembourg, Portugal, Germany, United Kingdom, Japan, Israel, Croatia, and Romania. Score variation among countries in this group is less disperse. Interestingly, some countries in this group were top performers in the previous OURdata Index editions, but the change of policy priorities after political elections has undermined sustained policy implementation at the national level. Low performance in Pillar 3 on government support for data re-use is more evident among countries in this group while efforts in the other two Pillars counterweight these gaps.
- Low performance: Latvia, Australia, New Zealand, Belgium, Mexico, Greece, Iceland, Costa Rica, Chile, Türkiye. The countries who score in this group have gaps across all three pillars of the OURdata Index. At the same time, score variation in this group is more disperse compared to the other groups.

Figure 3. Open data performance



Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Key findings across countries on data availability (Pillar 1)

Results indicate that many OECD countries have made significant efforts to develop robust governance arrangements for open government data, including open data strategies and mandatory requirements and guidelines for public sector organisations to publish open data. Figure 4 shows the aggregated results for the first pillar on data availability, which measures the extent to which governments have adopted formal requirements, strategies, and guidelines to publish open government data (*Pillar 1.1. Content of the open by default policy*). It also assesses stakeholder engagement for identifying data demand (*Pillar 1.2. Stakeholder engagement for data release*) and the availability of a set of high-value datasets as open data (*Pillar 1.3. Implementation*).

The top-ten performing countries in data availability are France, Korea, Denmark, Estonia, Lithuania, Slovenia, Sweden, Ireland, Norway, and Poland. These countries perform differently across sub-pillars. For example, Korea, France, Estonia, Poland, and Ireland outperform the other top-ten countries (Denmark, Lithuania, Slovenia, Sweden, Norway) in the availability of central requirements, guidelines, and incentive mechanisms supporting data release in line with the open by default principle (Pillar 1.1).

The OECD average for Pillar 1.1 (Content of the open-by-default policy) is 0.64 (see Figure 5) which is considerably higher than for the other two sub-pillars. The OECD average for Pillar 1.2 (Stakeholder engagement for data release) is only 0.33. The indicator measures how effectively governments engage with various groups such as businesses, public servants, and civil society to shape open data policies. There is a large spread in the performance of this sub-pillar across countries. Given the low OECD average, most countries could explore how to ensure that stakeholders are systematically involved in defining open data policies and in identifying demand for data.

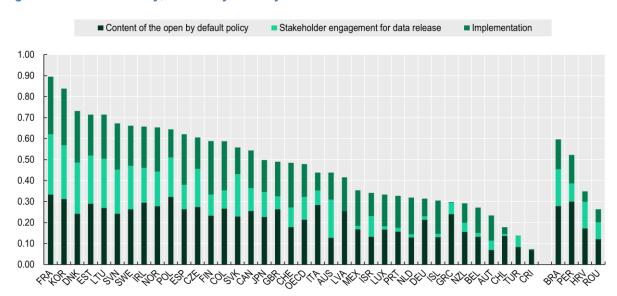
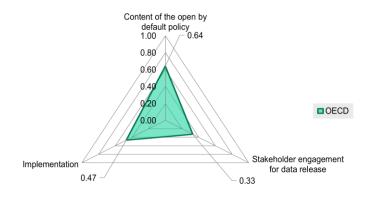


Figure 4. Data availability, results by country

Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Figure 5. Data availability, OECD average



Source: OECD (2022), Survey on Open Government Data 5.0

Figure 6 and Figure 7 present a breakdown of the OECD average and country performance for the subpillar 1.3 on implementation (availability of high-value datasets (HVD)). The OECD average for implementation is close to 0.47, indicating that, on average, only 47% of the assessed HVD are available as open data in OECD countries. Among the HVD assessed, statistics (67%) and geospatial (67%) have the highest OECD average, followed by mobility data (56%) and earth observation and environment (56%). The HVD categories in which OECD countries, on average, perform less well are government finances and accountability (27%) and companies and company ownership (31%). The country that performs best overall in the sub-pillar is France, with a total score of 82%. This means that France has made 82% of the HVD assessed by the OECD available as open data. France is followed by Korea (81%), Finland (76%), Denmark (74%), and Spain (72%). The results of the sub-pillar on implementation indicate that countries should look at prioritising the publication of open data in the areas of government finances and accountability and company information.

Company and company ownership 31% Health and social Farth observation and 100% welfare 42% environment 56% 80% 60% 40% Education 37% Geospatial 67% 20% **■**OECD 0% Crime and justice 39% Meteorological 46%

Statistics 67%

Mobility 56%

Figure 6. Availability of high value datasets, OECD average

Note: The categories of high value datasets are determined by the OECD and primarily based on the G8 Open Data Charter. Source: OECD (2022), Survey on Open Government Data 5.0

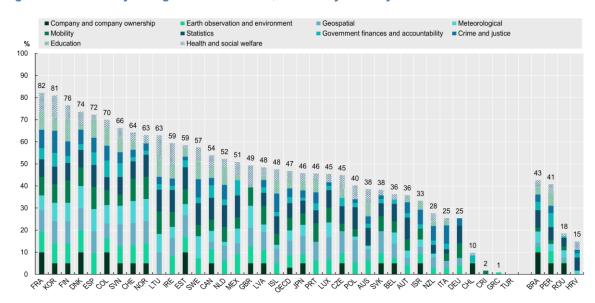


Figure 7. Availability of high value datasets, results by country

Government finances and accountability 27%

Note: The categories of high value datasets are determined by the OECD and primarily based on the G8 Open Data Charter. Data is considered available if they are machine-readable, free of charge, and provided with an open license. Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Key findings across countries on data accessibility (Pillar 2)

OECD countries have made significant strides to ensure that government data is not only made public but is also of good quality. The second pillar of the OURdata Index measures the availability of requirements (*Pillar 2.1. Content of the free and unrestricted access to data policy*) and the extent to which high-value government datasets are provided in open, timely and reusable formats, with good metadata quality, and through Application Programming Interfaces (APIs) (*Pillar 2.3 Implementation*). It also assesses stakeholder engagement on the central open data portal and to improve data quality (*Pillar 2.2. Stakeholder engagement for data quality and completeness*).

Looking at relative performance (Figure 8), the top ten performers for data accessibility are Poland, Korea, Norway, Estonia, France, Spain, Austria, Slovenia, the Netherlands, and Israel. For data accessibility, similar to data availability, the OECD average is higher for sub-pillar 2.1 on the content of free and open access to data policy (0.7) and for sub-pillar 2.3 on implementation (0.69) compared to sub-pillar 2.2 on stakeholder engagement for data quality and completeness (0.42) (see Figure 9).

As presented earlier, the OECD average for the aggregated score on data accessibility is higher than the two other pillars of the OURdata Index. The progress made in data accessibility and data quality is relevant not only as part of building stronger data governance foundations in the public sector, but also to ensure that open government data can feed into more advanced re-use applications, including Artificial Intelligence systems, and can be easily found, understood, and re-used directly from its source. This is crucial in areas such as meteorology and mobility, and in health, as seen during the COVID-19 pandemic.

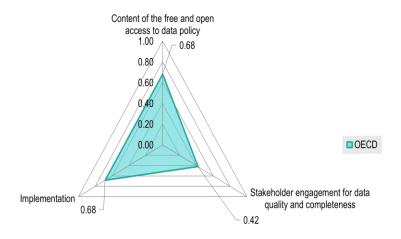
Content of the free and open access to data policy Stakeholder engagement for data quality and completeness Implementation

1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00

Figure 8. Data accessibility, results by country

Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

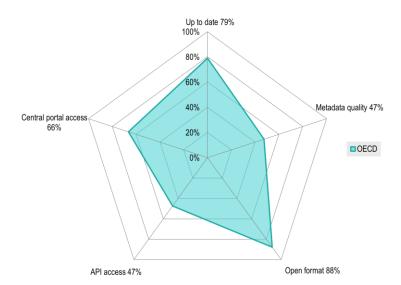
Figure 9. Data accessibility, OECD average



Source: OECD (2022), Survey on Open Government Data 5.0

Figure 10 illustrates the OECD average for the accessibility of HVD, as measured in the sub-pillar on implementation. On average, OECD countries are well-advanced in publishing HVD in open formats, ensuring data is up to date and making them accessible through a central open data portal. Areas that could improve include metadata quality (47%) and API access (47%), which are important factors for making open data feed into advanced, data-intensive applications. In Figure 11 we see that the country excelling in the accessibility of HVD is the Netherlands, followed by Canada, Norway, Denmark, Austria, Korea, Poland, Colombia, Slovenia, and Lithuania. The Netherlands, Canada and Norway score close to 1 in the implementation of data accessibility, demonstrating their efforts to prioritise data quality rather than data quantity, and to embed open data into their wider data governance frameworks.

Figure 10. Accessibility of high value datasets, OECD average



Source: OECD (2022), Survey on Open Government Data 5.0

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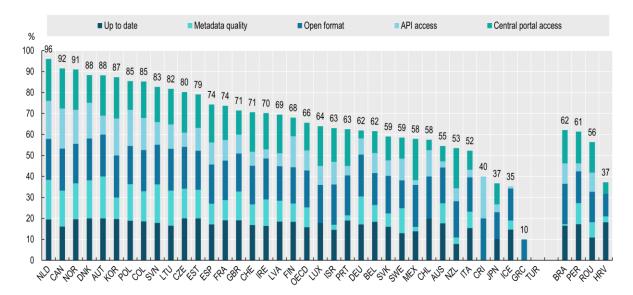


Figure 11. Accessibility of high value datasets, results by country

Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Key findings across countries on government support for data re-use (Pillar 3)

The third and final pillar of the OURdata Index measures governments' efforts to promote open data reuse. In line with previous editions of the OURdata Index, countries, on average, show weaker performance in government support for data re-use compared to data availability and accessibility.

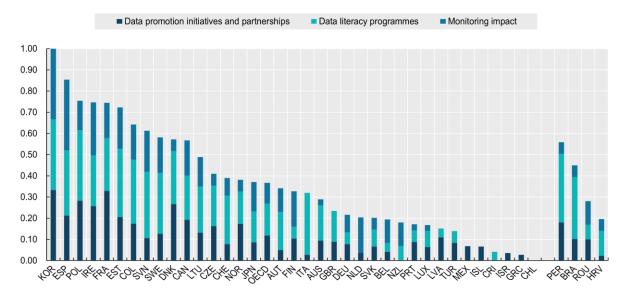
The first sub-pillar (*Pillar 3.1 Data promotion initiatives and partnerships*) examines how governments raise awareness about open government data among businesses and civil society and engage in partnerships and co-creation events to stimulate data reuse. The second sub-pillar (*Pillar 3.2. Data literacy programmes*) assesses the availability of capacity-building efforts for public servants in open data publication and data analytics and re-use. It also considers internal communication efforts targeting civil servants aimed at raising awareness. The final sub-pillar (*Pillar 3.3. monitoring impact*) evaluates efforts to conduct impact evaluations of open government data and the showcasing of re-use examples.

The top ten performers in this pillar are Korea, Spain, Poland, Ireland, France, Estonia, Colombia, Slovenia, Sweden, and Denmark. Among accession countries, both Peru and Brazil surpass the OECD average. Notably, many countries excelling in this pillar also performs well across the entire OURdata Index. As discussed earlier in this report, there is a wide range of performance across countries (see Figure 12). For instance, Korea achieves the maximum score of 1, while several countries score close to 0. This highlights how countries view differently the importance of systematically engaging with stakeholders and data reusers, as well as of monitoring impact, which are key enablers for value creation.

The OECD average (see Figure 13) is relatively low across all three sub-pillars, indicating a considerable need for improvement in most OECD countries. The average scores are 0.29 for monitoring impact, 0.36 for data promotion initiatives and partnerships, and 0.45 for data literacy programs in government. The higher performance in data literacy programmes in government follows similar patterns from previous index versions, where countries prioritise internal to external engagement. Achieving systematic external engagement with data users is key to achieving full open data maturity – similar to it being a key aspect of a user-driven and proactive digital government (OECD, 2020[9]). The low average score in monitoring

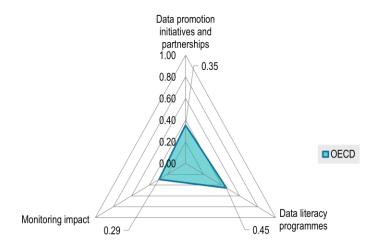
impact is most likely attributed to the lack of standards and best practice on how to measure open data's impact.

Figure 12. Government support for data re-use, results by country



Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Figure 13. Government support for data re-use, OECD average



Source: OECD (2022), Survey on Open Government Data 5.0

References

Paris, https://doi.org/10.1787/2807d3c8-en.	[o]
OECD (2021), Recommendation of the Council on Enhancing Access to and Sharing of Data, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0463 .	[2]
OECD (2020), Recommendation of the Council on the Governance of Infrastructure, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0460 .	[5]
OECD (2020), "The OECD Digital Government Policy Framework: Six dimensions of a Digital Government", OECD Public Governance Policy Papers, No. 02, OECD Publishing, Paris, https://doi.org/10.1787/f64fed2a-en .	[9]
OECD (2017), Recommendation of the Council on Open Government, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0438 .	[4]
OECD (2017), Recommendation of the Council on Public Integrity, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0435 .	[3]
OECD (2015), Recommendation of the Council on Budgetary Governance, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0410 .	[6]
OECD (2015), Recommendation of the Council on Public Procurement, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0411 .	[7]
OECD (2014), Recommendation of the Council on Digital Government Strategies, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0406.	[1]

Annex A. Country scores

Table A A.1. Data availability

	Content of the open by default policy	Stakeholder engagement for data release	Implementation	Data availability
OECD	0.64	0.33	0.47	0.48
AUS	0.38	0.55	0.38	0.44
AUT	0.21	0.14	0.36	0.23
BEL	0.40	0.06	0.36	0.27
BRA	0.84	0.53	0.43	0.60
CAN	0.77	0.32	0.54	0.54
CHE	0.53	0.28	0.64	0.49
CHL	0.41	0.03	0.10	0.18
COL	0.80	0.26	0.70	0.59
CRI	0.20	0.00	0.02	0.07
CZE	0.83	0.54	0.45	0.61
DEU	0.64	0.05	0.25	0.31
DNK	0.73	0.73	0.74	0.73
ESP	0.79	0.35	0.72	0.62
EST	0.87	0.69	0.59	0.72
FIN	0.70	0.30	0.76	0.59
FRA	1.00	0.86	0.82	0.89
GBR	0.79	0.18	0.49	0.49
GRC	0.72	0.17	0.01	0.30
HRV	0.52	0.38	0.15	0.35
ISL	0.39	0.05	0.48	0.30
IRE	0.88	0.50	0.59	0.66
ISR	0.40	0.30	0.33	0.34
ITA	0.85	0.21	0.25	0.44
JPN	0.68	0.36	0.46	0.50
KOR	0.94	0.77	0.81	0.84
LTU	0.81	0.71	0.63	0.71
LUX	0.50	0.05	0.45	0.33
LVA	0.76	0.00	0.48	0.42
MEX	0.50	0.05	0.51	0.35
NLD	0.39	0.05	0.52	0.32
NOR	0.83	0.50	0.63	0.65
NZL	0.47	0.13	0.28	0.29
PER	0.90	0.26	0.41	0.52
POL	0.97	0.56	0.40	0.64
PRT	0.47	0.06	0.46	0.33
ROU	0.36	0.24	0.18	0.26
SVK	0.69	0.61	0.38	0.56
SVN	0.73	0.63	0.66	0.67
SWE	0.79	0.62	0.57	0.66

TUR	0.25	0.17	0.00	0.14

Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Table A A.2. Data accessibility

	holder engagement for data quality and leteness	Implementation	Data accessibility
0.42		0.68	0.59
0.19		0.61	0.27
0.60		0.89	0.75
0.31		0.66	0.49
0.54		0.64	0.64
0.50		0.92	0.70
0.28		0.71	0.55
0.00		0.65	0.22
0.35		0.87	0.41
0.00		0.40	0.47
0.00		0.81	0.57
0.23		0.70	0.64
0.13		0.92	0.68
0.58		0.75	0.78
0.83		0.81	0.85
0.88		0.74	0.70
1.00		0.76	0.85
0.00		0.76	0.42
0.00		0.20	0.37
0.35		0.45	0.60
0.00		0.45	0.26
0.42		0.72	0.66
0.54		0.65	0.73
0.44		0.58	0.67
0.35		0.37	0.24
0.82		0.88	0.90
0.42		0.83	0.72
0.60		0.65	0.72
0.23		0.70	0.51
0.00		0.58	0.39
0.82		0.96	0.73
0.83		0.91	0.89
0.63		0.54	0.51
0.00		0.64	0.49
1.00		0.89	0.45
0.52		0.64	0.69
0.52		0.64	0.69
			0.59
			0.73
			0.73
	0.46 0.60 0.55 0.00	0.60 0.55	0.60 0.84 0.55 0.64

Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Table A A.3. Government support to data re-use

	Data promotion initiatives and partnerships	Data literacy programmes in government	Monitoring impact	Government support to data re- use
OECD	0.35	0.45	0.29	0.37
AUS	0.28	0.50	0.08	0.29
AUT	0.15	0.54	0.33	0.34
BEL	0.13	0.13	0.33	0.19
BRA	0.31	0.88	0.17	0.45
CAN	0.58	0.63	0.50	0.57
CHE	0.23	0.69	0.25	0.39
CHL	0.00	0.00	0.00	0.00
COL	0.52	0.91	0.50	0.64
CRI	0.00	0.13	0.00	0.04
CZE	0.49	0.57	0.17	0.41
DEU	0.23	0.17	0.25	0.22
DNK	0.80	0.75	0.17	0.57
ESP	0.64	0.93	1.00	0.85
EST	0.62	0.97	0.58	0.72
FIN	0.31	0.17	0.50	0.33
FRA	0.99	0.75	0.50	0.75
GBR	0.27	0.44	0.00	0.23
GRC	0.08	0.00	0.00	0.03
HRV	0.07	0.35	0.17	0.20
ICE	0.20	0.00	0.00	0.07
IRE	0.77	0.72	0.75	0.75
ISR	0.11	0.00	0.00	0.04
ITA	0.08	0.88	0.00	0.32
JPN	0.26	0.44	0.42	0.37
KOR	1.00	1.00	1.00	1.00
LTH	0.39	0.66	0.42	0.49
LUX	0.19	0.23	0.08	0.17
LVA	0.33	0.13	0.00	0.15
MEX	0.21	0.00	0.00	0.07
NLD	0.11	0.00	0.50	0.20
NOR	0.52	0.46	0.17	0.38
NZL	0.00	0.21	0.33	0.18
PER	0.54	0.97	0.17	0.56
POL	0.85	1.00	0.42	0.75
PRT	0.26	0.17	0.08	0.17
ROU	0.30	0.21	0.33	0.28
SVK	0.20	0.24	0.17	0.20
SVN	0.32	0.94	0.58	0.61
SWE	0.38	0.86	0.50	0.58
TUR	0.25	0.17	0.00	0.14

Note: Data is not available for Hungary and the United States. On data for Israel, see https://doi.org/10.1787/888932315602. Source: OECD (2022), Survey on Open Government Data 5.0

Annex B. Methodological note

Methodological update to the OURdata Index

The OURdata Index in 2017 and 2019 were calculated using the methodology described in Lafortune (2018_[8]). After the 2019 edition was published, the survey and sub-pillars underwent a revision to ensure the continued relevance of the OURdata Index for the upcoming years. The revision was made over a two-year period with a task force consisting of representatives from Denmark, Canada, Estonia, New Zealand, Korea, and Brazil. In the end of 2021, a pilot of the revised survey was conducted with the task force and the final survey was launched in May 2022.

Data collection and calculation

The OECD Survey on Open Government Data 5.0, which ran from May to December 2022, collected evidence in 36 OECD member countries¹ and 4 accession countries². Data from Hungary and the United States is not available as these countries did not complete the survey. Once submitted, the survey responses went under a detailed data validation process designed to ensure the highest standards in data quality. While the overall methodological approach used to calculate the OURdata Index remains the same as in its first versions, several variables and parameters within sub-pillars have been modified. The major changes have been made to Pillar 1.3 and Pillar 2.3 to increase the focus on implementation (availability and accessibility of datasets).

The OURdata composite score, which represents the overall open government data performance, is the unweighted average of the scores of all three pillars, which ranges from 0 to 1. Each pillar score is calculated as an unweighted average of all corresponding sub-pillars. The score for each sub-pillar is calculated by averaging the corresponding parameter and variable scores. The relative weight of each variable and parameter is determined by the number of variables and parameters within a sub-pillar. The tables below present a detailed description of the parameters, variables and scores feeding into each sub-pillar of the OURdata Index, and the implicit weight of each variable and parameter because of the number of parameters/variables included. The statistical validation of the updated OURdata Index methodology is shown in Annex C.

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¹ All 38 OECD member countries, except Hungary and the United States

² Peru, Romania, Brazil and Croatia

Pillar 1. Data availability

Table 3. Pillar 1.1. Content of the open by default policy

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.25	Existence of open by default	0.25	Existence of an open data strategy	Yes	1	Q.11.
	requirements and strategy			No	0	
		0.25	Requirements to publish open data for public sector organisations	Yes, requirements exist that apply to all public sector organisations	1	Q.12.
				No, but requirements have been developed by some public sector organisations	0.5	
				No	0	
		0.25	Requirements to publish open data for public	Yes	1	Q.15.
			undertakings	No	0	
		0.25	Requirements to publish publicly funded	Yes	1	Q.19.
			research data as open data	No	0	
0.25	Clear and transparent	0.25	List with legitimate justifications for not	Yes	1	Q.13, 13.3
	justifications for not releasing		publishing open data	No	0	and 13.4
	data	0.25	List is available online to the public	Yes	1	
				No	0	-
		0.2	List covers privacy and personal data protection	Yes	1	-
				No	0	
		0.2	List covers commercial confidentiality	Yes	1	
				No	0	
		0.2	List covers statistical confidentiality	Yes	1	
				No	0	-
		0.2	List covers national security, defense, and public	Yes	1	
			security	No	0	
		0.2	List covers intellectual property	Yes	1	
				No	0	-
0.25	Compliance with legislation	0.0666	Guidelines to ensure that open data publication	Yes	1	Q.45
			complies with privacy and personal data protection	No	0	
		0.0666	Guidelines to ensure that open data publication	Yes	1	
			respects commercial confidentiality	No	0	
		0.0666	Guidelines to ensure that open data publication	Yes	1	
			respects statistical confidentiality	No	0	
		0.0666	Guidelines to ensure that open data publication	Yes	1	
			respects national security, defense and public security	No	0	
		0.0666	Guidelines to ensure that open data publication	Yes	1	
			respects intellectual property rights	No	0	
		0.0666	Legal framework has been evaluated to ensure	Yes	1	Q.47
			privacy and personal data protection	No	0	
		0.0666	Legal framework has been evaluated to ensure	Yes	1	
			commercial confidentiality	No	0	
		0.0666	Legal framework has been evaluated to ensure	Yes	1	
			statistical confidentiality	No	0	
		0.0666	Legal framework has been evaluated to ensure	Yes	1	
			national security, defense and public security	No	0	
		0.0666	Legal framework has been evaluated to ensure	Yes	1	
			intellectual property	No	0	

		0.33	Guidelines to de-identify and anonymize data	Yes	1	Q.46
				No	0	
0.25	Performance incentives and	0.5	Mechanisms to incentivize open data publication	Yes	1	Q.33
	monitoring			No	0	
		0.25	Indicators to monitor compliance with open data	Yes	1	Q.34, Q.34.1
			requirements	No	0	
		0.25	Monitoring results are available for public access	Yes	1	
				No	0	

Table 4. Pillar 1.2. Stakeholder engagement for data release

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.333	User driven data release	0.143	Requirements exist for public sector organizations to regularly consult with stakeholders on the open data policy	Yes, there are overarching requirements that apply to all public sector organisations	1	Q.64
				No, but requirements have been adopted by some public sector organisations	0.5	
				No	0	
		0.143	Written guidance exist on how to consult with data users	Yes element is available for all public sector organisations,	1	Q.67
				No, but element has been developed by some public sector organisations	0.5	
			_	No	0	
		0.143	Requirements exist to share data inventories when conducting user consultations	Yes element is available for all public sector organisations,	1	
				No, but element has been developed by some public sector organisations	0.5	
	0.143			No	0	
		0.143	Requirements on minimum periods to respond to a consultation	Yes element is available for all public sector organisations,	1	
				No, but element has been developed by some public sector organisations	0.5	
				No	0	
		0.143	Requirements to publish online the results of consultations	Yes element is available for all public sector organisations,	1	
			No, but element has been developed by some public sector organisations	0.5		
				No	0	
		0.143	Government keeps track on the type of	Yes	1	Q.70
			stakeholders that respond to open data consultations	No	0	
		0.143	Citizens can use Access to Information requests to	Yes	1	Q.71
			request open data	No	0	
0.333	Guidelines and practices 0. on data inventories	0.0833	Requirements to maintain a data inventory	Yes, there are overarching requirements that apply to all public sector organisations	1	Q.49, Q.49.1, Q.49.2
				No, but requirements have been adopted by some public sector organisations	0.5	
				No	0	
		0.0833		Yes	1	
			Requirements for data inventories include non- open data	No	0	
		0.0833	Requirements to publish data inventories online	Yes	1	
				No	0	
		0.25		Yes	1	Q.50

			Governance mechanism to ensure data inventories are in place	No	0	
		0.25	Guidelines on how to create and manage a data	Yes	1	Q.51
			inventory	No	0	
		0.25	Between 2020 and 2021, assessment was made to	Yes	1	Q.52
			evaluate data inventories	No	0	
0.333	Frequency of	0.0833	Consultations with businesses 2020-2021	Very Often	1	Q.68.1, Q.68.3
	consultations on open			Often	0.75	
	data plans			Sometimes	0.5	
				Rarely	0.25	
				Never/ I do not know	0	
		0.0833	Businesses were consulted to identify data demand	Yes	1	
				No		
		0.0833	Consultations with citizens journalists, civil society	Very Often	1	Q.68.1, Q.68.5
			organisations and academia 2020-2021	Often	0.75	
			_	Sometimes	0.5	-
				Rarely	0.25	
				Never/I do not know	0	
		0.0833		Yes	1	
				No	0	
		0.0833	Consultations with public servants 2020-2021	Very Often	1	Q.68.1, Q.68.5
				Often	0.75	
				Sometimes	0.5	
				Rarely	0.25	
				Never/ I do not know	0	
		0.0833	Public servants were consulted to identify data	Yes	1	
			demand	No	0	
		0.5	Results from stakeholders consultations are available online	Yes, the results from all consultations are available online	1	Q.68.6
				Yes, the results from some consultations are available online	0.5	
				No	0	

Table 5. Pillar 1.3. Implementation (availability of high value datasets)

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.1	Companies and company ownership	0.5	Company register	Yes/No	1/0	Q.80
	is available as open data	0.5	Company ownership	Yes/No	1/0	
0.1	Earth observation and environment is	0.045	Ortho imagery	Yes/No	1/0	
	available as open data	0.045	Satellite imagery	Yes/No	1/0	
		0.045	Land cover	Yes/No	1/0	
		0.045	Land use	Yes/No	1/0	
		0.045	Geology	Yes/No	1/0	
		0.045	Water bodies	Yes/No	1/0	
		0.045	Water treatment plants	Yes/No	1/0	
		0.045	Water supply networks	Yes/No	1/0	
		0.045	Mineral resources	Yes/No	1/0	
		0.045	Renewable energy resources	Yes/No	1/0	
		0.045	Fossil fuel resources	Yes/No	1/0	
		0.045	Air quality	Yes/No	1/0	
		0.045	Water quality	Yes/No	1/0	
		0.045	Noise pollution	Yes/No	1/0	

		0.1667	Weather forecasts	Yes/No	1/0
		0.1667	Climatological observations	Yes/No	1/0
		0.1667	Climate change predictions	Yes/No	1/0
0.1	Makilik da amiliakta an ama daka	0.1667 0.1667	Climatological reference data	Yes/No Yes/No	1/0
0.1	Mobility is available as open data	0.1667	Road transport networks Rail transport networks	Yes/No	1/0
		0.1667	Water transport networks	Yes/No	1/0
		0.1667	Public transport timetables	Yes/No	1/0
		0.1667	Real-time traffic information	Yes/No	1/0
		0.1667	Motor vehicle registrations	Yes/No	1/0
).1	Statistics is available as open data	0.1007	Census and demographic indicators	Yes/No	1/0
7. 1	Otationico io available ao open data	0.2	Vital statistics	Yes/No	1/0
		0.2	Economic indicators	Yes/No	1/0
		0.2	Connectivity	Yes/No	1/0
		0.2	Wealth	Yes/No	1/0
0.1	Government finances and	0.0625	Public procurement: Planning	Yes/No	1/0
,. ı	accountability is available as open	0.0625	Public procurement: Call for tender	Yes/No	1/0
	data	0.0625	Public procurement: Awards	Yes/No	1/0
		0.0625	Public procurement: Contracts	Yes/No	1/0
		0.0625	Public procurement: Implementation	Yes/No	1/0
		0.0625	Detailed government budget	Yes/No	1/0
		0.0625	Detailed government spending	Yes/No	1/0
		0.0625	Election results	Yes/No	1/0
		0.0625	Salaries of individual senior civil servants	Yes/No	1/0
		0.0625	Government contact points	Yes/No	1/0
		0.0625	International aid	Yes/No	1/0
		0.0625	Hospitality and gifts	Yes/No	1/0
		0.0625	Aggregated data on lobbying on public decision making	Yes/No	1/0
		0.0625	Assets declarations of top-two-tiers of public employees	Yes/No	1/0
		0.0625	Interest declarations of top-two-tiers of public employees	Yes/No	1/0
		0.0625	Emergency and disaster relief	Yes/No	1/0
).1	Crime and justice is available as open	0.1667	Draft legislation	Yes/No	1/0
	data	0.1667	Laws and statues	Yes/No	1/0
		0.1667	Members of parliament	Yes/No	1/0
		0.1667	<u> </u>	Yes/No	1/0
		0.1667	Judicial decisions Crime statistics	Yes/No	1/0

0.1	Education is available as open data	0.2	List of schools	Yes/No	1/0
		0.2	Location of educational facilities	Yes/No	1/0
		0.2	School performance	Yes/No	1/0
		0.2	Skills statistics	Yes/No	1/0
		0.2	Digital skills statistics	Yes/No	1/0
0.1	Health and social welfare is available as open data	0.125	Medical prescriptions	Yes/No	1/0
		0.125	Levels of access to health care	Yes/No	1/0
		0.125	Health visitor data	Yes/No	1/0
		0.125	Location of healthcare facilities	Yes/No	1/0
		0.125	Health statistics	Yes/No	1/0
		0.125	Health insurance	Yes/No	1/0
		0.125	Social benefits	Yes/No	1/0
		0.125	Housing	Yes/No	1/0

Note: datasets are only considered available if they are free of charge, machine-readable and provided with an open license, following the OECD definition of open data from the Recommendation on Enhancing Access to and Sharing of Data.

Pillar 2. Data accessibility

Table 6. Pillar 2.1. Content of the free and open access to data policy

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.1667	Existence of requirements on machine- readable and open formats	0.5	Requirements to publish open government data in machine-readable format	Yes, requirements exist that apply to all public sector organisations	1	Q.53
				No, but requirements have been developed by some public sector organisations	0.5	
				No	0	
		0.5	Requirements to publish open government data in open format	Yes, requirements exist that apply to all public sector organisations	1	
				No, but requirements have been developed by some public sector organisations	0.5	
				No	0	
0.1667	Existence of requirements to provide open data free of charge and with open license	0.5	Requirements to publish open government data free of charge	Yes, requirements exist that apply to all public sector organisations	1	
				No, but requirements have been developed by some public sector organisations	0.5	
				No	0	
		0.5	Requirements to publish open government data with an open license	Yes, requirements exist that apply to all public sector organisations	1	
				No, but requirements have been developed by some public sector organisations	0.5	
				No	0	
0.1667	Existence of requirements to provide timely access to disaggregated data	0.5	Requirements to publish open government data in a timely manner	Yes, requirements exist that apply to all public sector organisations	1	
				No, but requirements have been developed by some public sector organisations	0.5	
				No	0	
		0.5	Requirements to publish open government data disaggregated, when applicable	Yes, requirements exist that apply to all public sector organisations	1	

				No, but requirements have been developed by some public sector organisations	0.5
				No	0
0.1667	Existence of requirements to provide data through APIs	1	Requirements to publish open government data with standard API access	Yes, requirements exist that apply to all public sector organisations	1
				No, but requirements have been developed by some public sector organisations	0.5
				No	0
	Existence of requirements to provide data via the central/federal open government data portal, if available	1	Requirements to publish open government data on the central/federal open government data portal	Yes, requirements exist that apply to all public sector organisations	1
				No, but requirements have been developed by some public sector organisations	0.5
				No	0
0.1667	Existence of requirements on metadata	0.5	Requirements to publish open government data with their associated and complete metadata	Yes, requirements exist that apply to all public sector organisations	1
				No, but requirements have been developed by some public sector organisations	0.5
				No	0
		0.5	Requirements to publish open government data with metadata that conforms to a	Yes, requirements exist that apply to all public sector organisations	1
			metadata standard	No, but requirements have been developed by some public sector organisations	0.5
				No	0

Table 7. Pillar 2.2. Stakeholder engagement for data quality and completeness

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.5	Feedback mechanisms on the central/federal	0.125	The central open data portal has a user feedback functionality	Yes	1	63.10
	open government data portal			No	0	
		0.125	User feedback is collected and used to improve open data	Yes	1	63.12
			policies	No	0	
		0.125	_	Yes	1	63.11
				No	0	
		0.125 The portal has a function for users to provide an opinion on the	Yes	1	63.10	
			quality and completeness of datasets	No	0	
		0.5	The central portal has a discussion forum	Yes	1	63.10
				No	0	
0.5	User-driven central/federal open government	0.111	11 Users can register as data publishers on the central open data portal	Yes	1	63.4
	data portal			No	0	
		0.111	Users can publish data on the central open data portal	Yes	1	
				No	0	
		0.111	Users who publish data can be notified about any issues or	Yes	1	63.5
			discussions about their data Users can publish data re-use cases on the central open data portal	No	0	
		0.333		Yes	1	63.4
				No	0	
		0.333	Users can receive notifications when specific datasets are	Yes	1	63.10
			modified or added to the central open data portal	No	0	

Table 8. Pillar 2.3. Implementation (accessibility of high value datasets)

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.2	-		Percentage of high value datasets that are available as open data (Pillar	Yes/No/Not applicable x 82	0.00-	Q.80
	access		1.3) and accessible through the central/federal open data portal	data categories assessed	1.00	
		0.5	There is a central/federal open government data portal	Yes/No	1/0	Q.63
0.2	Metadata	0.5	Percentage of high value datasets that are available as open data (Pillar	Yes/No/Not applicable x 82	0.00-	Q.80
	quality		1.3) and provided with standardized metadata	data categories assessed	1.00	
		0.5	Percentage of high value datasets that are available as open data (Pillar	Yes/No/Not applicable x 82	0.00-	Q.80
			1.3) and provided with complete metadata	data categories assessed	1.00	
0.2	Open format	1	Percentage of high value datasets that are available as open data (Pillar	Yes/No/Not applicable x 82	0.00-	Q.80
			1.3) and provided in at least one open format	data categories assessed	1.00	
0.2	Up to date	1	Percentage of high value datasets that are available as open data (Pillar	Yes/No/Not applicable x 82	0.00-	Q.80
			1.3) and that are up to date	data categories assessed	1.00	
0.2	API access	1	Percentage of high value datasets that are available as open data (Pillar	Yes/No/Not applicable x 82	0.00-	Q.80
			1.3) and that can be access through a standard API	data categories assessed	1.00	

Note: The score for each parameter in this sub-pillar depends on the performance of countries in Pillar 1.3, as only datasets that are available as open data are assessed in Pillar 2.3. If a country has no datasets available as open data (Pillar 1.3), and no central open data portal (Q.63), they will automatically receive a 0 score in Pillar 2.3.

Pillar 3. Government support to data re-use

Table 9. Pillar 3.1. Data promotion initiatives and partnerships

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.333	Existence of data awareness	0.20	Public sector organisations are encouraged to raise awareness	Yes	1	Q.72
	programmes for businesses and civil		among businesses about open government data	No	0	
	society	0.20	In 2020-2021, an assessment was made to understand barriers to	Yes	1	Q.76
			open data reuse by businesses	No	0	
		0.20	Public sector organisations are encouraged to raise awareness	Yes	1	Q.73
			among civil society organisations about open government data	No	0	
		0.20	In 2020-2021, an assessment was made to understand barriers to	Yes	1	Q.77
			open data reuse by civil society	No	0	
		0.10	In 2020-2021 the government supported initiatives led by civil	Yes	1	Q.79
			society or businesses to identity solutions to public policy challenges through open data re-use	No	0	
		0.10	At least one initiative focused on identifying solutions to policy	Yes	1	Q.79.1
			challenges faced by maginalised groups in society	No	0	
0.333	Frequency of specific events to support	0.125	In 2020-2021, information sessions were organised with businesses to present the benefits of open data	Yes	1	Q.78
	data re-use among businesses and the			No	0	
	civil society	0.125	Frequency of information sessions with businesses	Very often	1	Q.78.1
				Often	0.6667	
				Sometimes	0.3333	
				Rarely	0	
		0.125	In 2020-2021, information sessions were organised with civil	Yes	1	Q.78
			society to present the benefits of open data	No	0	
		0.125	Frequency of information sessions with civil society	Very often	1	Q.78.1
				Often	0.6667	
				Sometimes	0.3333	Q.73 Q.77 Q.79 Q.79.1 Q.78 Q.78.1
				Rarely	0	
		0.125	In 2020-2021, co-creation events were organised that involved the	Yes	1	Q.78
			re-use of open government data by businesses	No	0	

		0.125	Frequency of co-creation events with businesses	Very often	1	Q.78.1
				Often	0.6667	
				Sometimes	0.3333	
				Rarely	0	
				Never	0	
		0.125	In 2020-2021, co-creation events were organised that involved the	Yes	1	Q.78
			re-use of open government data by civil society	No	0	
		0.125	Frequency of co-creation events with civil society	Very often	1	Q.78,1
				Often	0.6667	
				Sometimes	0.3333	
				Rarely	0	
0.333	Existence of formal partnerships with	0.5	Between 2020-2021, the government had a formal partnership	Yes	1	Q.74
	businesses and civil society		with businesses to promote re-use of open government data	No	0	Q.78,1
		0.5	Between 2020-2021, the government had a formal partnership	Yes	1	Q.75
			with civil society organisations to promote re-use of open government data	No	0	

Table 10. Pillar 3.2. Data literacy programmes in government

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.5	Training events for public officials to support trustworthy data publication and use	0.25	In 2020-2021, there was a training programme in place to train public servants in open data preparation and publication (open data literacy)	Yes, an overarching programme that applied to all public sector organisations	1	Q.36
				No, but programmes had been developed by some public sector organisations	0.5	
				No	0	
		0.25	Frequency of open data literacy training sessions	Very often	1	Q.37
			with public servants in 2020-2021	Often	0.75	
				Sometimes	0.5	Q.38 Q.39
				Rarely	0.25	
				Never	0	
		0.25	In 2020-2021, there was a training programme in place to train public servants on how to interpret, analyse and re-use data (data literacy)	Yes, an overarching programme that applied to all public sector organisations	1	0.5 Q.38
				No, but programmes had been developed by some public sector organisations	0.5	
				No	0	
		0.25	Frequency of data literacy training sessions with public servants in 2020-2021	Very often	1	Q.39
				Often	0.75	
				Sometimes	0.5	
				Rarely	0.25	
				Never	0	
0.5	Internal communication and	0.25	In 2020-2021information sessions were organized	Yes	1	Q.35, Q.35.1,
	consultation to support implementation		with public servants to raise awareness about open government data	No	0	Q.35.2
		0.25	Frequency of information sessions with public	Very often	1	
			servants	Often	0.667	Q.38 Q.39
				Sometimes	0.333	
				Rarely	0	
				Never	0	
		0.5	Information session targeting public servants with	Yes	1	
			managerial positions	No	0	

Table 11. Pillar 3.3. Monitoring impact

Weight	Parameter	Weight	Variable	Answer options	Score	Questions
0.5	Conducted or financed research on the	0.333	In 2020-2021, assessments were made to evaluate the impact of	Yes	1	Q.40
	impact of open government data	open government data on public sector performance	open government data on public sector performance	No	0	
		0.333	In 2020-2021, the government finances or conducted research on	Yes	1	Q.41
			the economic impact of open government data	No	0	
		0.333	In 2020-2021, the government finances or conducted research on	Yes	1	Q.42
			the social impact of open government data	No	0	
0.5	Monitor and promote online initiatives re-	0.1	Data visualizations made with open data are showcased on the	Yes	1	Q.63.14
	using open government data		central open data portal	No	0	
		0.1	Service or application made by public servants with open data are	Yes	1	
			showcased on the central open data portal	No	0	
		0.1	Service or application made by businesses with open data are	Yes	1	Q.63.14
			showcased on the central open data portal	No	0	1
		0.1	Press, blog article or other data-driven journalism made with open data are showcased on the central open data portal	Yes	1	

Annex C. Statistical validation

Several statistical tests have been executed to test the robustness and validity of the updated OURdata Index methodology. Similar to previous Index methodology versions, these tests aim to demonstrate how reliable the OURdata Index is in measuring one underlying, unobservable concept (open government data maturity), as well as the validity of the choice of individual parameters and variables.

Figure A C.1 shows the correlation between the composite score of the 2023 OURdata Index and the 2022 EU Open Data Maturity assessment for countries who participate in both measurements. The results show that there is a high correlation between the two international indicators, which supports the fact that they are both measuring a similar underlying concept, even though the methodologies differ in detail.

1 0.9 0.8 DNKSVN IRE 0.7 OURdata Index 2023 NOR 0.6 CZE SVK 0.5 LVA 0.4 BFL 0.3 GRC ISI 0.2 0.1 0 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 EU Open Data Maturity 2022

Figure A C.1. High correlation between OURdata Index and EU Open Data Maturity

Note: The graph shows the correlation between the 2023 OURdata Index and the 2022 EU Open Data Maturity assessment. The correlation coefficient value is 0.84, where a value between 0.7 and 0.9 is considered highly correlated.

Figure A C.2 shows the internal consistency performance of the OURdata Index using the statistical test Cronbach's Alpha (CA). CA measures the internal consistency of survey items feeding into the OURdata Index, and ranges from 0 to 1. The higher the value of the CA, the more robust the results are. Usually, a threshold of 0.7 is viewed as acceptable. As demonstrated by the results, each pillar of the Index has a level of internal consistency well above this threshold.

0.75
0.75
0.25
0.00

Figure A C.2. Internal consistency - Cronbach's Alpha

Note: The figure shows the Cronbach's Alpha, a measure of the internal consistency of the survey items.

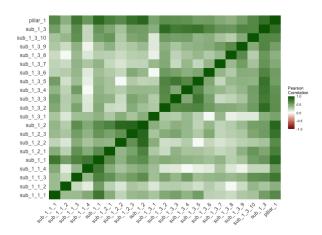
Pillar 1

Figure A C.3, C.4 and C.5 show the correlations of parameters within each pillar of the OURdata Index. As the parameters within one pillar is aimed at measuring the same underlying concept, they should not be negatively correlated. The correlation matrixes shown in the figures confirm that within each of the three pillars, all parameters are positively correlated, with a medium size correlation. These results demonstrate the validity of the chosen parameters within each pillar and supports the claim of robustness of the OURdata Index methodology.

Pillar 2

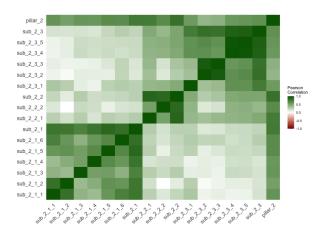
Pillar 3

Figure A C.3. Correlations – Pillar 1



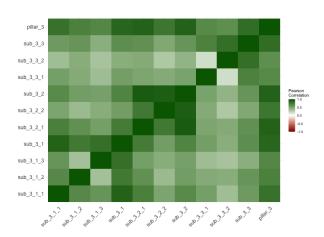
Note: All correlations of sub-pillars in pillar 1 of the index are positively correlated, with a medium size correlation.

Figure A C.4. Correlations – Pillar 2



Note: All correlations of sub-pillars in pillar 2 of the index are positively correlated, with a medium size correlation.

Figure A C.5. Correlations – Pillar 3



Note: All correlations of sub-pillars in pillar 3 of the index are positively correlated, with a medium size correlation. Source: OURdata Index, 2023