

Impact

2025 **Open Data Maturity Report**



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European Commission

Directorate-General for Communications Networks, Content and Technology Unit G.1 – Data Policy and Innovation

Email: CNECT-G1@ec.europa.eu

European Data Portal

Email: info@data.europa.eu

Authors - Capgemini Invent

Martin Page, PhD Arman Behrooz Ben Yasin Presse

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Chapter 7: Open data impact

The Open Data Directive (<u>Directive (EU) 2019/1024</u>) and the Implementing Regulation on High-value Datasets (HVDs) (<u>Regulation (EU) 2023/138</u>) encourage EU Member States to promote the reuse of public sector information, aiming to generate economic, environmental and societal benefits. Indeed, impact can be realised when open data is repurposed to create benefits in various fields.

The impact dimension of the open data maturity (ODM) assessment is designed to encourage countries to implement mechanisms for monitoring open data reuse and to better understand and address the needs of data users. Hence, the impact dimension evaluates how well countries define and measure data reuse, the steps taken to assess reuse and user needs, and the presence of reuse examples in the domains of government, society, the environment and the economy. Table 1 outlines the key components of this dimension.

Table 1: Indicators of the impact dimension

Indicator	Key elements		
Strategic awareness	This indicator assesses whether a national definition of open data reuse exists and how reuse is monitored and encouraged. It looks at processes for tracking reuse at the national, regional, and local levels, including for high-value datasets. It also considers whether a methodology is in place to measure the impact of open data reuse.		
Measuring reuse	This indicator explores how reuse is understood and documented. It looks at tools and activities for identifying which datasets are reused and how, along with efforts to understand reusers' needs. It also considers whether reuse cases are gathered and classified systematically.		
 Created impact governmental social environmental economic 	 This indicator evaluates whether the impact of open data reuse has been studied and documented across key domains. It looks at evidence and examples of impact in the following domains. Governmental. Efficiency, transparency, policymaking and decision-making. Social. Inclusion, health, housing, education and data literacy. Environmental. Biodiversity, sustainable cities, climate change mitigation and renewable adoption. Economic. Gross domestic product, employment, productivity, innovation, entrepreneurship and business creation. 		

This chapter will first present the overall performance on the impact dimension and then provide a summary of the results and best practices for each indicator.

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7.1. Overall performance on the impact dimension

In 2025, the impact dimension is the least mature dimension of the ODM assessment, with the EU-27 scoring 82 % on average (Figure 1). Nonetheless, maturity in this dimension has grown by 2 percentage points (pp) since the 2024 assessment. This increase at the dimension level has been driven by improvements in all three underlying indicators. Specifically, the 'strategic awareness' and 'created impact' indicators both increased by 2 pp and the 'measuring reuse' indicator increased by 1 pp. While 'strategic awareness' (89 %) and 'measuring reuse' (88 %), which primarily relate to the activities of the national open data teams, show strong maturity at close to 90 %, 'created impact' remains behind at 77 %, demonstrating the challenge of converting data supply into active uptake by data users. Still, taken from a historical perspective, maturity on the 'created impact' indicator has increased by more than 10 pp since this indicator was introduced to the methodology in 2022.

As in the previous year, 11 countries achieve full maturity (100 %) on this dimension (Figure 2). **Denmark** and **Ireland** (as in 2024) and now in 2025 also **Norway** and **Slovenia** achieve a nearly full maturity score of 97 %.

However, the distribution of scores reveals a two-speed reality. While half of the assessed countries score more than 90 % on this dimension, nearly a quarter of countries remain below 50 % maturity. This suggests that the leading countries are consolidating their advanced practices, but many others are still establishing their foundations on the concepts of reuse and impact.

Countries that experienced decreases on their impact dimension scores are **Croatia** and **Sweden**. Croatia's 8 pp drop in overall score stems from a 14 pp decrease in the 'created impact' indicator. This is largely due to the country indicating that it does not currently have up-to-date information on the social impact of open data. Sweden's overall score declined by 7 pp, largely due to a significant 33-point drop in the measuring reuse indicator. This decline can be attributed to the discontinuation of activities aimed at tracking how open datasets are reused, along with efforts to understand the needs of data reusers.

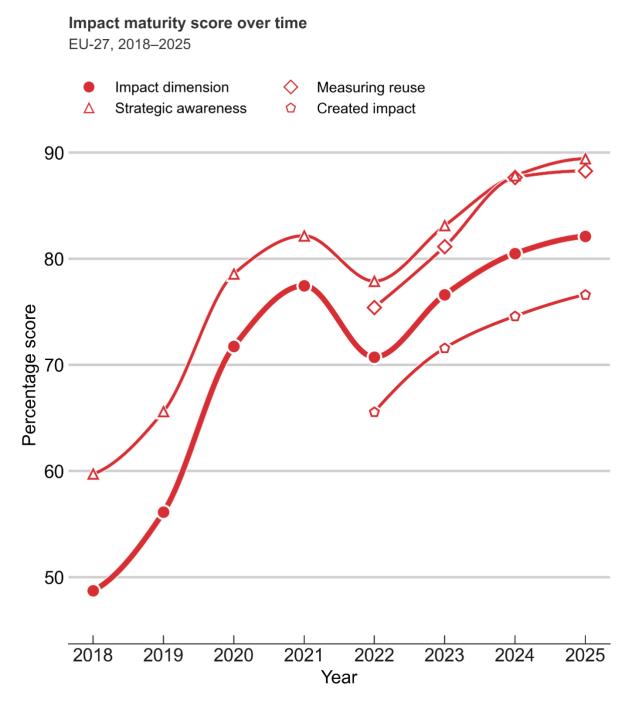


Figure 1: The EU-27 average score on the impact dimension has risen steadily during 2022–2025.

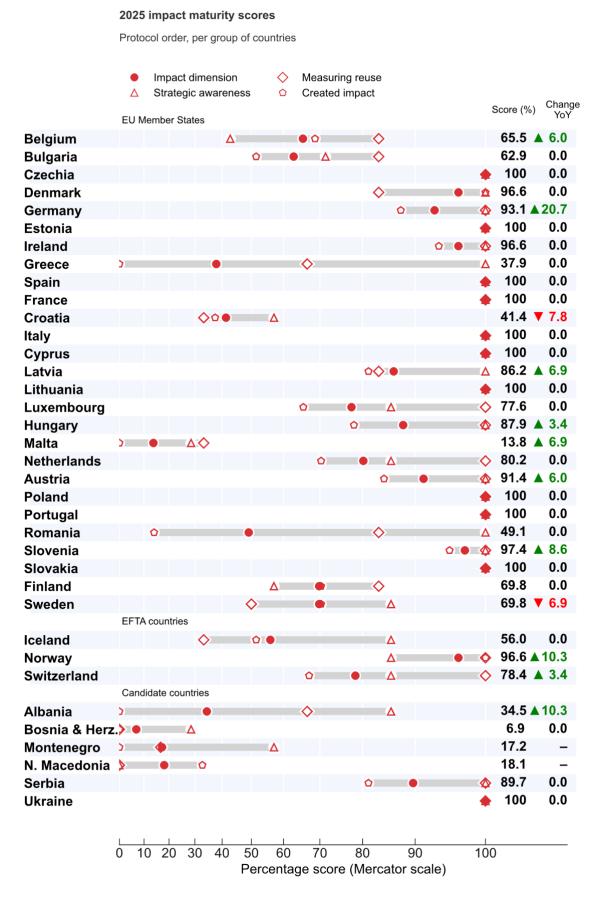


Figure 2: Ten participating countries improved their score on the impact dimension in 2025. NB: EFTA: European Free Trade Association; YoY: year-on-year.

Highlight from Lithuania – Formal methodologies for measuring impact

One of the key practices highlighted in this year's report is the adoption of formal frameworks and structured methodologies that provide a systematic way to assess the impact of open data. **Lithuania** stands out with a comprehensive approach.

- Official monitoring methodology. The 'Methodology for the monitoring of open datasets' sets out specific indicators and procedures for tracking the publication and reuse of datasets. It defines how institutions should report on open data activities, ensuring consistency, accountability and compliance across the public sector. The methodology is formally endorsed by the Director of the Information Society Development Committee, giving it regulatory weight.
- **Predictive economic impact analysis.** The Ministry of Economy and Innovation conducted <u>calculations</u> to estimate the economic impact of open data. This analysis provides quantifiable evidence of open data's contribution to innovation, productivity and job creation, reinforcing its strategic importance.

These methodologies also help policymakers communicate the economic benefits of open data for the national economy in an accessible manner for all stakeholders. For example, this <u>article</u> illustrates the findings from the Ministry of Economy and Innovation's predictive economic impact analysis, showing that open data in Lithuania creates a market value of approximately EUR 566 million – around 1.2 % of gross domestic product – and supports about 8 000 value-added jobs.

Read more about this trend in Section 7.2.

Germany (+ 21 pp), **Norway** (+ 10 pp) and **Albania** (+ 10 pp) showed the most significant year-on-year improvements in the impact dimension.

Germany's improved maturity relates primarily to a notable increase in the 'strategic awareness' indicator (+ 29 pp). This can be credited to their recent development of implementing processes for monitoring and measuring the level of reuse of high-value datasets, along with new collaborations between their government institutions and other actors (e.g. civil society and academia). Germany also considerably improved its 'created impact' indicator, and more specifically 'social impact', by reporting evidence and reuse cases across key domains such as inequality, housing and health.

Highlight from Germany – mFund initiative

One of the key practices highlighted in this year's report is the focus on systematic funding that sustains long-term capacity and fosters collaboration between government and civil society.

As an example, **Germany's** mFund initiative provides structured financial support for mobility-related data projects, encouraging partnerships beyond government. In total, 15 mFUND projects involve civil society organisations that use and/or create open data, demonstrating how systematic funding can amplify open data impact.

A notable project that was created through this funding programme is the <u>miki project (mobil im Kiez)</u>, which develops navigation and orientation solutions for people with limited mobility through active civil society engagement. The project team created a nationwide prototype with visualisations for cities such as Cologne, Kassel, Munich, Potsdam and Saarbrücken, showing building barriers and path surfaces. People with disabilities were involved from the start of the project. These visualisations will be integrated into Wheelmap.org, helping individuals with mobility impairments save money, plan better and advocate for accessible environments. The project also enabled the OpenStreetMap community to identify missing data quickly.

Read more about this trend in Section 7.2.

Norway's improved maturity is driven by the 'created impact' indicator (+ 19 pp), and mostly in the domain of 'economic impact' (+ 56 pp). Namely, it now reports documented reuse cases driving improvements in employment, innovation and productivity.

Albania's improvement can mostly be credited to a 33 pp increase on the 'measuring reuse' indicator. Albania reported introducing new activities in 2025 to track dataset reuse, including surveys and workshops with reusers. In addition, it has launched a social media campaign as a way to better understand reusers' needs and to further stimulate the reuse of open data.

Highlight from Norway – Entur initiative

In the domain of economic impact, **Norway** stands out with the **Entur initiative**. This is a state-owned company that created a national platform for travel planning and mobility services. By aggregating and standardising real-time data from public transport operators, Entur provides unified access to mobility information. The platform uses open standards such as NeTEx and SIRI and is built on OpenTripPlanner 2.0, enabling advanced routing and integration with micro-mobility services such as scooters. Through APIs and <u>open datasets published on data.norge.no</u>, developers can access timetables, stop locations and real-time updates to build apps and services that support seamless mobility. Entur also collaborates on open-source development and integrates providers like Voi and TIER, fostering an ecosystem of innovative mobility solutions.

This case highlights how open data can serve as a foundational enabler for innovation ecosystems and accelerate technology adoption. By providing standardised, real-time transport data through open APIs and datasets, Entur removes interoperability barriers and creates a shared infrastructure that developers and service providers can build upon.

Read more about trends in the economic impact of open data in Section 7.4.

7.2. Strategic awareness

This indicator assesses how well countries define the reuse and impact of open data and their readiness to measure impact using monitoring systems and research methods, particularly for HVDs. It examines the actions taken to generate open data impact. In essence, strategic awareness involves establishing the essential foundations needed to evaluate the effectiveness of open data initiatives.

<u>Definition of open data reuse</u>

Having an agreed definition of open data reuse is a helpful starting point for setting up efforts to measure it. Typically, open data reuse refers to using public sector information for purposes other than those for which it was originally created. Table 2 presents an overview of how countries responded to the questions on this topic.

Table 2: Country responses to questions on the definition of open data reuse

	Do you have a definition of open data reuse in your country?
EU-27	Like in 2024, 26 Member States (96 %), all except Finland , report having a definition of open data reuse.
EFTA	Iceland and Norway report having a definition of open data reuse. This has remained stable since 2024.
Candidate	Albania, Montenegro, Serbia and Ukraine report having a definition of open data
	reuse.

(Question I1)

Across the countries that provide a definition of reuse, definitions of open data reuse are most commonly grounded in a binding legal instrument (law/act) that defines or regulates reuse. This legal basis ensures enforceability and consistency across public sector bodies, making reuse rights clear and legally protected. Namely, Albania, Denmark, Hungary, Italy, Luxembourg, Netherlands, Portugal, Romania and Spain note that they explicitly refer to an open data or reuse law. This approach signals a strong policy commitment to open data principles and often includes detailed provisions on formats, licensing and conditions for reuse.

Several others (e.g. **Bulgaria**, **Croatia**, **Czechia**, **Estonia**, **Latvia**, **Montenegro** and **Ukraine**) derive their definition from freedom of information / access to information laws with specific reuse provisions. For these countries, the legal foundation of reuse is often framed within transparency and accountability objectives rather than innovation or economic reuse goals. In addition, **Germany**, **Greece** and **Serbia** include reuse provisions within broader digital governance or e-government frameworks. For example, Germany refers to the E-Government Act, and Serbia cites its Law on eGovernment, both of which regulate reuse as part of digital transformation measures.

Beyond legal anchors, several countries describe open data reuse primarily through policy documents (such as strategies, guidelines or official reports) rather than a single statutory clause. For example, **Austria** points to the Austrian open government framework / white paper, **Cyprus** cites its open data strategy, **Ireland** quotes its open data strategy 2023–2027 and **Norway** references a government policy page and an official report for its working definition. In addition, while **Slovakia** reports that there is no single legal definition of reuse, national strategy documents are referred to, framing reuse as value-creating activities (apps, analyses, services) that enhance transparency and innovation.

Monitoring open data reuse

Monitoring how open data is reused and encouraging public bodies to track the reuse of their own datasets can help inform strategies to enhance the reuse of open data. Table 3 presents an overview of how countries responded to the questions on this topic.

Table 3: Country responses to questions on monitoring open data reuse

	Are there any processes in place to monitor the level of reuse of your country's open data?	Are there any activities in place to encourage public bodies to monitor the reuse of their own published data?	
EU-27	25 Member States (93 %), all except Croatia and Finland, report having processes in place to monitor the level of reuse. This has remained stable since 2024.	23 Member States (85 %), all except Belgium, Croatia, Malta and the Netherlands, report a strong focus on encouraging public bodies to monitor data reuse. This has remained stable since 2024.	
EFTA	All three countries report having processes in place to monitor the level of reuse. This has remained stable since 2024.	Iceland and Switzerland report encouraging public bodies to measure the reuse of their own open datasets. This has remained stable since 2024.	

	Are there any processes in place to monitor the level of reuse of your country's open data?	Are there any activities in place to encourage public bodies to monitor the reuse of their own published data?	
Candidate	Montenegro, Serbia and Ukraine report having processes in place to monitor the level of reuse.	Serbia, Ukraine and Albania (the most recent addition) report encouraging public bodies to measure the impact of open data.	

(Questions 12, 13)

Across countries, the most common way to monitor open data reuse is to maintain public directories or pages of reuse cases on or connected to the national portal. However, countries report a variety of best practices in implementing such a structured reuse directory. Specifically, some directories, such as those in Czechia, France, Luxembourg, Netherlands, Romania, Serbia, Slovakia, Spain, and Sweden, are open for user submissions, allowing reusers to directly add or declare their reuse cases.

Spain, France, Romania and **Slovakia** note that their directories incorporate built-in moderation features, which review or validate submissions before publishing them to ensure accuracy and relevance. In addition, **Portugal, Spain** and **Switzerland** enhance their directories with thematic tagging and categorisation, allowing reuse cases to be grouped by topic for easier navigation. Other countries integrate reuse cases more deeply into the data ecosystem: **Norway** automatically links reuse examples to the datasets they use and embeds them in the catalogue, and **Montenegro** provides use case sections per dataset.

Another common way to monitor open data reuse is through analytics tools and dashboards embedded in national portals. Many countries rely on standard web analytics tools such as Google Analytics and Matomo for systematic monitoring of dataset use such as visits and downloads. Others combine analytics with custom dashboards: for example, **Spain** integrates Google Analytics with Looker Studio to produce interactive reports, and **Bulgaria** pairs Google Analytics with Tableau to publish portal usage and dataset popularity openly. Several countries emphasise the public transparency of metrics, such as **Spain**, which shares engagement statistics through its *Métricas e Impacto* reporting. In some cases, analytics are complemented by additional indicators: for example, **Switzerland** includes portal usage statistics as part of its open government data masterplan, alongside thematic showcases and impact key performance indicators. These variations illustrate how analytics-based monitoring ranges from basic traffic tracking to integrated dashboards that combine quantitative metrics with qualitative impact indicators.

In terms of activities in place to encourage public bodies to monitor the re-use of their own published data, the dominant approach is to train and build capacity among civil servants for monitoring re-use. Specifically, **Bulgaria**, **Cyprus**, **Hungary**, **Ireland**, **Romania**, **Sweden** and **Switzerland** run institutional or recurring training that goes beyond general open data awareness and includes practical elements such as impact measurement, analytics and engagement with re-users. **Spain** and **Portugal** primarily rely on regional or event-based training and support (e.g. webinars, workshops and pilots) that also encourage monitoring practices.

Another recurring approach is the use of legal mandates that require public bodies to monitor and report on the re-use of their data. **Ukraine** imposes a clear statutory obligation with centralised reporting to the Cabinet of Ministers. **Slovakia** requires re-use data for a national impact report through a government resolution. **Romania** is introducing secondary rules and templates for annual

reporting that include re-use metrics. **Albania** sets open data obligations in law but relies mainly on awareness and compliance sessions rather than explicit monitoring requirements.

Interestingly, some countries use awards and recognition programmes to incentivise public bodies to monitor and promote the re-use of their data, although this is not widespread. These initiatives create positive visibility for organisations that demonstrate strong practices, turning monitoring into a reputational benefit rather than a compliance burden. For example, **Greece** organises the <u>Digital Awards</u>, which celebrate innovative and effective open data practices, including strong monitoring and re-use initiatives. This recognition raises the profile of public servants who lead by example and inspires others to adopt similar approaches. Similarly, **Austria** uses its <u>Data Governance Conference</u> to honour institutions that excel in implementing governance and monitoring mechanisms, reinforcing the importance of structured oversight. In **Estonia**, an <u>annual competition</u> highlights the best data publishers, re-use cases and visualisations. Winners are publicly recognised on the national portal and invited to share their expertise in working groups, creating a cycle of recognition and knowledge-sharing that strengthens the open data ecosystem.

High-value datasets

Having robust processes in place to monitor and measure the reuse of HVDs can support measures that apply the Implementing Regulation on HVDs. Table 4 presents an overview of how countries responded to the questions on this topic.

Table 4: Country responses to the question on HVDs

	Does your country have processes in place to monitor and measure the level of reuse of HVDs?
EU-27	20 Member States (74 %) report having processes in place to monitor the reuse of HVDs. Germany is the newest country to report doing this.

(Question 14)

NB: Non-EU countries were not surveyed on this question, since the High-Value Dataset (HVD) Implementing Regulation applies only to EU Member States.

Countries are adopting a mix of strategies to monitor and measure the reuse of high-value datasets (HVDs). A trend among **Germany**, **Cyprus**, **Latvia**, **Lithuania** and **Slovakia** is to rely on quantitative indicators such as downloads, API calls and page views, typically via national open data portals. While the **Netherlands** does not yet operate a national monitoring process, usage is tracked by some providers (e.g. Public Service on the Map) through API statistics. Portal-integrated metrics generally provide a straightforward and scalable basis for monitoring but, as **Germany** notes, page views alone can be misleading without provider-side download/API logs.

In parallel, **Estonia**, **Spain**, **Portugal** and **Romania** report focusing on qualitative insights by collecting and analysing real-world HVD use cases. This method helps governments understand not just how often HVDs are accessed, but also how they are used, by whom and for what purpose. This is especially valuable for assessing societal and economic impact.

Highlight from Lithuania – insights from high-value datasets access statistics

Lithuania has made significant strides in promoting the reuse of high-value datasets. More than 400 such datasets are published on its national open data portal, data.gov.lt. To monitor their reuse, the portal is equipped with a built-in functionality that tracks download statistics for each dataset. These statistics show which datasets are most used and provide clear indicators of user engagement. For instance, address data from the Address Register has been downloaded more than 1.2 million times, while data from the Real Estate Register has seen over 150 000 downloads. Additionally, datasets relating to water use and waste management have recorded thousands of downloads. These figures serve as proxies for reuse, based on the assumption that high download volumes reflect active utilisation in applications, research or public services. Lithuania applies the same statistical monitoring methods to HVDs as it does to general open data, ensuring consistency and comparability across its data ecosystem.

Defining and measuring the impact of open data

Specifying what the impact of open data means in the national context can enable better measurement of the effectiveness of policies and other implementation measures in achieving the envisaged impact. Table 5 presents an overview of how countries responded to the questions on this topic.

Table 5: Country responses to questions on defining and measuring the impact of open data

	Has your government specified what 'impact of open data' means?	Do you have a methodology in place to measure the impact of open data in your country?
EU-27	25 Member States (93 %) report having a definition of open data impact. This has remained stable since 2024.	24 Member States (89 %) report having a methodology in place to measure the impact of open data, with Romania being the latest to report having such a methodology.
EFTA	All three countries report having a definition of open data impact. This has remained stable since 2024.	Norway and Switzerland report having a methodology in place to measure the impact of open data. This has remained stable since 2024.
Candidate	Albania, Montenegro, Serbia and Ukraine report having a definition of open data impact, with Serbia being the latest addition.	Albania, Serbia and Ukraine report having a methodology in place to measure the impact of open data. This has remained stable since 2024.

(Questions I5 and I6)

Many countries define the impact of open data as a multi-domain concept, recognising its potential across governance, economic, environmental, innovation and social spheres. However, the emphasis varies by country. For instance, **Denmark, Norway** and **Switzerland** prioritise economic benefits such as growth, competitiveness and job creation. In contrast, **Albania**, **Serbia** and **Ukraine** focus on governance improvements, highlighting transparency, accountability and anti-corruption. **Bulgaria** and **Portugal** underscore social value, emphasising citizen empowerment and inclusion. Innovation and research are central to definitions in **Sweden**, which links open data to Al-driven services and scientific advancement. Additionally, countries like **Denmark** and **Finland** incorporate environmental

sustainability into their frameworks, connecting open data to climate action and resource management. These nuanced approaches reflect diverse national priorities while collectively affirming the transformative potential of open data across sectors.

The most common approach to measuring the impact of open data is the development of formal frameworks and structured methodologies. These frameworks provide a systematic way to assess impact. **Spain, Italy, Lithuania, Portugal, Romania** and **Slovakia** have codified methodologies with defined indicators and dimensions, often embedded in national strategies or aligned with international standards. For example, **Portugal's** project <u>Dados Abertos – Definição de modelo de avaliação de impacto</u> benchmarks international best practices, defines metrics and applies case studies across governmental, economic, social and environmental domains. It uses surveys of data providers and reusers and has already been applied to real cases. Romania's <u>OECD-supported framework</u> combines recurrent evaluations with the development of reuse impact indicators.

Other countries follow different structured trends. **Croatia, Hungary** and **Serbia** use multi-dimensional impact indices or *ex ante / ex post* assessment models to capture economic, social, political and environmental effects. **Finland, Norway** and **Switzerland** rely on model-based approaches such as STEEP analysis or Social Return on Investment, while **Czechia** and **Ukraine** employ qualitative frameworks inspired by international best practices, focusing on interviews, case studies and thematic analysis. Finally, **Cyprus** represents a hybrid trend, combining structured elements with periodic <u>impact studies and reuse case analysis</u>.

Collaboration to create open data impact

One way to create impact with open data is for the public sector to work together with other stakeholders. Table 6 presents an overview of how countries responded to the questions on this topic.

Table 6: Country responses to questions on collaboration to create open data impact

	Is there collaboration between government and civil society or academia to create open data impact in your country?
EU-27	26 Member States (96 %), with Germany as the most recent addition, report that they ensure collaboration between government and civil society or academia to create open data impact. Malta did not report doing this.
EFTA	All three countries ensure collaboration between different parties to create open data impact. This has remained stable since 2024.
Candidate	Albania, Bosnia and Herzegovina, Serbia and Ukraine report ensuring collaboration between different parties to create open data impact.

(Question 17)

Some countries emphasise partnerships that focus on engaging with different stakeholders and using open data to co-create new applications and services. Namely, **Croatia**, **Estonia**, **Iceland**, **Spain**, **Switzerland** and **Ukraine** report co-creating applied solutions through hackathons and datathons with various stakeholders.

A key trend reported by countries is the use of funding as a lever to drive open data impact, but this takes two distinct forms. For example, **Estonia**, **Ireland** and **Ukraine** emphasise engagement-oriented

funding, where grants, awards and prize funds are tied to participatory initiatives such as hackathons, accelerators and community projects. **Ireland's** annual Engagement Fund finances collaborative projects and hackathons, while **Estonia** incentivises innovation through awards for the best academic theses on open data reuse. In contrast, **Denmark**, **Germany**, **Spain**, **Italy** and **Lithuania** focus on systematic or institutional funding, which sustains long-term capacity rather than one-off competitions. For example, **Germany's** mFUND programme supports multiple open data projects, and **Denmark** allocates public funding to Open Data DK to assist municipalities in publishing data.

Many countries also report including academic institutions in projects as a way of creating open data impact. These partnerships often go beyond research and measurement to co-develop platforms, tools, and services that enable reuse and innovation. For example, Spain, Italy and Portugal all mention establishing academic chairs, observatories or research hubs which focus on leveraging open data (among other types of data) in order to inform public administration and policy research. These hubs sustain long-term impact beyond one-off projects.

7.3. Measuring reuse

This indicator assesses the actions taken to map reuse, the methodologies for collecting and classifying reuse cases, and the activities performed to understand the requirements of reusers.

The reuse of datasets and reusers' needs

Conducting activities to document which open datasets are reused and how, and what the needs of reusers are, can help public bodies devise approaches to further stimulate the reuse of open data. Table 7 presents an overview of how countries responded to the questions on this topic.

Table 7: Country responses to questions on reuse of datasets and reusers' needs

	Have any public bodies in your country launched or performed any activities in the past year to understand which (open) datasets are reused and how?	Have any public bodies in your country launched or performed any activities in the past year to better understand reusers' needs in order to further stimulate the reuse of open data?
EU-27	26 Member States (96 %), all except Malta, report performing activities to understand which datasets are being reused and how. This has remained stable since 2024.	24 Member States (89 %) report that public bodies perform activities to better understand reusers' needs. This has remained stable since 2024.
EFTA	All three countries report performing activities to understand which datasets are being reused and how. This has remained stable since 2024.	Norway and Switzerland report that public bodies perform activities to better understand reusers' needs. This has remained stable since 2024.
Candidate	Albania, Serbia and Ukraine report performing activities to understand which datasets are being reused and how.	Serbia, Ukraine and, most recently, Albania, report performing activities to better understand reusers' needs.

(Questions 18 and 19)

In 2025, the most common activity performed to understand how datasets are reused remains running interviews or workshops with reusers (28 countries). The three other activities (i.e. running surveys, implementing automated feedback mechanisms that track users' access to datasets, and using other approaches) measured are equally common, as all are cited by 20 countries. Compared to 2024, the category 'Other' has the largest increase in reported use (+ 5 countries).

Among the countries that selected 'Other', the most frequent approach for understanding which open datasets are reused and how involves hackathons, datathons, competitions and workshops (e.g in **Croatia, Czechia, Norway, Spain** and **Ukraine**). These events provide a practical setting to observe real-world reuse, identify popular datasets and gather feedback directly from participants through Q&A sessions and collaborative challenges. Equally significant is the trend of maintaining feedback and dialogue channels (e.g. in **Albania, Austria, Denmark, Estonia, Germany** and **Sweden**). These include national forums, GitHub issue trackers, reuse pages on portals, developer dialogues and structured consultations, all designed to capture insights on how datasets are being applied.

Gathering and classifying reuse cases

Public bodies can develop systematic ways of gathering and classifying reuse cases to understand how datasets are reused and what impact they can potentially create. Table 8 presents an overview of how countries responded to the questions on this topic.

Table 8: Country responses to questions on gathering and classifying reuse cases

	Have any public bodies in your country developed any systematic way of gathering reuse cases?	Are there any public bodies in your country that have developed a systematic way of classifying the gathered reuse cases?
EU-27	24 Member States (89 %) report that public bodies have developed systematic ways of gathering reuse cases. This has remained stable since 2024.	19 Member States (70 %), with the recent addition of Belgium , report that public bodies have developed systematic ways of classifying reuse cases.
EFTA	Norway and Switzerland report that public bodies have developed systematic ways of gathering reuse cases. This has remained stable since 2024.	Norway and Switzerland report that public bodies have developed systematic ways of classifying reuse cases. This has remained stable since 2024.
Candidate	Montenegro, Serbia and Ukraine report that public bodies have developed systematic ways of gathering reuse cases.	Serbia and Ukraine report that public bodies have developed systematic ways of classifying reuse cases. This has remained stable since 2024.

(Questions I10 and I11)

The most common method of gathering open data reuse cases by European public bodies is through their national or regional open data portals. Most countries enable reusers to self-report their reuse cases via a submission mechanism on their open data portals. Some countries such as **Ireland** and **Austria** take a more hybrid approach, enabling reuse case submission via the national portal and simultaneously approaching others (e.g. agencies, companies, developers) to request or solicit reuse cases.

While national portals are the most common platforms offering this function, **Denmark**, **Germany**, **Spain**, **Italy** and **Switzerland** note a decentralised approach where regional, sectoral, or municipal portals gather their own reuse cases. For example, **Germany** and **Italy** rely on state or regional portals, while in **Denmark** reuse cases are collected through sector-specific portals such as the environmental portal.

Surveys are another common method of gathering reuse cases, as noted by, for example, **Czechia**, **Spain**, **Lithuania**, **Slovakia** and **Sweden**. These are specifically regular, usually annual questionnaires directed at data providers/publishers to collect reuse cases. For example, in **Czechia** there is an annual survey among open-data providers feeding the *Annual Report on the State of Open Data* and the reuse catalogue.

Lastly, some countries such as **Denmark**, **Estonia**, **Greece** and **Spain** also mention that they actively involve their open data user communities through events and networks, creating opportunities to showcase reuse cases and stimulate new ones. For example, **Estonia's** Ministry of Justice and Digital Affairs runs meetings with the public sector, non-governmental organisations, academia and private companies, in order to foster structured discussions to capture reuse cases, while **Greece** leverages datathons and hackathons as a way of gathering solutions built on open data.

Highlight from Denmark – Multichannel approach to gathering reuse cases

Denmark has adopted a multi-channel approach to collecting reuse cases, blending engagement and flexibility:

- active engagement: authorities conduct interviews with selected reusers, ensuring input from different user groups and varying levels of maturity;
- **community events**: targeted seminars, such as those organised for the environmental portal, create opportunities to surface sector-specific reuse cases;
- diverse presentation formats:
 - o some cases are published as in-depth articles on platforms like dataforsyningen.dk,
 - o others appear as short catalogue entries, for example, Environmental Portal solutions,
 - o certain cases remain internal-only, guiding authorities' own improvement efforts.

This layered strategy ensures that reuse stories are not only collected but also curated in ways that maximise their value for different audiences.

7.4. Created impact

The 'created impact' indicator assesses the presence of data that provides evidence on the impact that open data is creating in a country (e.g. in the form of research studies, statistics or impact assessments) and the presence of reuse case examples (e.g. data applications, digital services or analysis used for decision-making). The 'created impact' indicator is evaluated in four impact domains: government, society, the environment and the economy.

Governmental impact

The 'governmental impact' subindicator evaluates the presence of research data on open data impact and reuse cases that pertain to (1) the efficiency and effectiveness of the government in delivering public services, (2) the transparency and accountability of public administrations, (3) the policymaking process and (4) decision-making processes in public administrations. Table 9 presents an overview of how countries responded to the questions on this topic.

Table 9: Country responses to questions on governmental impact

	Is there data on the impact created by open data on governmental challenges?	Is there a reuse case example related to the efficiency and effectiveness of government operations?	Is there a reuse case example related to the transparency and accountability of public administrations?	Is there a reuse case example related to the policymaking process?	Is there a reuse case example related to decision-making processes in public administrations?
EU-27	17 Member States (63 %) report having such data available. This has remained stable since 2024.	23 Member States (85 %) gave an example of a reuse case on this topic. This has remained stable since 2024.	24 Member States (89 %) gave an example of a reuse case on this topic. This has remained stable since 2024.	22 Member States (81 %) gave an example of a reuse case on this topic. Germany is the most recent addition to this group.	22 Member States (81 %) gave an example of a reuse case on this topic. Latvia is the most recent addition to this group.
EFTA	Norway, and most recently Switzerland, report having such data available.	Like in 2024, all three countries gave an example of a reuse case on this topic.	Like in 2024, all three countries gave an example of a reuse case on this topic.	Like in 2024, all three countries gave an example of a reuse case on this topic.	Like in 2024, all three countries gave an example of a reuse case on this topic.
Candidate	North Macedonia and Ukraine report having such data available.	North Macedonia, Serbia and Ukraine gave an example of a reuse case on this topic.	Serbia and Ukraine gave an example of a reuse case on this topic.	North Macedonia, Serbia and Ukraine gave an example of a reuse case on this topic.	North Macedonia, Serbia and Ukraine gave an example of a reuse case on this topic.

(Questions I12, I13, I14, I15 and I16)

The following are some interesting reuse cases reported on this topic.

Reuse case example from Czechia – Accreditation of perinatological centres

<u>Subdomain</u>

Transparency and accountability.

Function and purpose

Perinatological centres in Czechia are specialised units within public hospitals that provide high-risk pregnancy care, childbirth services and neonatal intensive care under the oversight of the Ministry of Health. Starting in 2025, the ministry introduced a new accreditation process for perinatological centres that uses quality indicators derived from national health registries, which are also published as open data on the Czech national open data portal. This approach ensures that accreditation decisions are based on objective, verifiable evidence rather than internal reporting. The performance of each centre is assessed using real-world open data on maternal and neonatal outcomes and the frequency of specific obstetric interventions. For example, open datasets include indicators such as the number and type of deliveries and selected care parameters, broken down by provider.

Target group

Public perinatological centres seeking accreditation for the 2025–2029 period, as well as health authorities responsible for quality assurance.

Datasets used

The performance of each centre is assessed using indicators from the dataset <u>Vybrané ukazatele</u> <u>zdravotní péče v porodnicích ČR</u> (selected indicators of maternity care in Czech hospitals), published as open data on the <u>Czech National Open Data Portal</u>. This dataset provides facility-level aggregated information on the number and type of deliveries, caesarean section rates, neonatal outcomes and selected care parameters, enabling transparent and comparable evaluation across providers.

Impact

This accreditation process can have several tangible impacts. First, it enables objective benchmarking of perinatological centres by providing standardised indicators that can be compared across facilities and tracked over time. Second, the open publication of these data enhances transparency and accountability, allowing not only the Ministry of Health but also researchers, journalists, and the public to monitor performance and identify trends. Finally, by aligning with the national open data methodology, the dataset supports data-driven governance and fosters trust in the healthcare system, as stakeholders can independently verify the quality of care provided in public hospitals.

Reuse case example from Spain - Santiago del Teide's urban planning

Subdomain

Local government decision-making

Functioning and purpose

The Municipality of Santiago del Teide reused open data to support the <u>development of its urban planning strategy</u>. While the main goal was to define land use and guide spatial development, open datasets played a key enabling role. These included geospatial data, land classification and heritage inventories sourced from regional <u>open data portals</u>. The data was used to categorise land (e.g. rustic, urban, developable) and to compile a municipal catalogue of protected assets, such as monuments and ecologically significant sites, ensuring compliance with the Canary Islands' heritage regulations. This reuse of open data improved the accuracy, transparency and legal alignment of the planning process, demonstrating how open data can enhance local governance and sustainable development.

Target group

The target groups for this reuse case of open data for urban development include municipal planners and decision-makers, architects and urban developers, local communities, along with researchers and environmental analysts.

Datasets

The primary datasets reused in the urban planning strategy of Santiago del Teide can be found in the <u>Urban Planning Dataset published by SITCAN</u>. This dataset includes zoning classifications, land use documentation and regulatory materials that were essential for defining the municipality's spatial development model and compiling its catalogue of protected assets.

<u>Impact</u>

The reuse of open data in Santiago del Teide's urban planning has contributed to greater transparency, accessibility and regulatory alignment. By publishing zoning and land classification data, the municipality has made its planning documents openly available to individuals, developers and researchers. This supports public participation, allowing stakeholders to understand and engage with land use decisions. Additionally, the integration of heritage inventories and geospatial data ensures that planning complies with regional regulations, particularly those relating to the protection of cultural and ecological assets. While no formal impact assessment is published, the availability and reuse of these datasets reflect a shift toward data-driven governance and open administration, consistent with broader goals promoted by national initiatives like <u>Urbanismo en Red</u> and <u>Red.es</u>.

Social impact

The 'social impact' subindicator evaluates the presence of research data on open data impact and reuse cases that pertain to (1) marginalised groups and inequality, (2) urban housing, (3) health and well-being and (4) education and skills. Table 10 presents an overview of how countries responded to the questions on this topic.

Table 10: Country responses to questions on social impact

	Is there data on the impact created by open data on social challenges?	Is there a reuse case example related to marginalised groups and inequality?	Is there a reuse case example related to urban housing?	Is there a reuse case example related to health and well-being?	Is there a reuse case example related to education and skills?
EU-27	16 Member States (59 %) report having such data available. Germany and Latvia are the latest additions.	21 Member States (78 %) gave an example of a reuse case on this topic. Germany and Latvia are the latest additions.	22 Member States (81 %) gave an example of a reuse case on this topic. This has remained stable since 2024.	23 Member States (85 %) gave an example of a reuse case on this topic. This has remained stable since 2024.	21 Member States (78 %) gave an example of a reuse case on this topic. This has remained stable since 2024.
EFTA	Like in 2024, Norway reports having such data available.	Like in 2024, Norway gave an example of a reuse case on this topic.	Like in 2024, Norway and Switzerland gave an example of a reuse case on this topic.	Like in 2024, Norway and Switzerland gave an example of a reuse case on this topic.	All three countries gave an example of a reuse case on this topic, with Norway being the latest addition.
Candidate	North Macedonia, Serbia and Ukraine report having such data available.	Serbia and Ukraine gave an example of a reuse case on this topic. This has remained stable since 2024.	Serbia and Ukraine gave an example of a reuse case on this topic. This has remained stable since 2024.	Serbia and Ukraine gave an example of a reuse case on this topic. This has remained stable since 2024.	Serbia and Ukraine gave an example of a reuse case on this topic. This has remained stable since 2024.

(Questions I17, I18, I19, I20 and I21)

The following are some interesting reuse cases reported on this topic.

Reuse case example from Ireland - Social Pattern Decoded

<u>Subdomain</u>

Social demographics and marginalised groups.

Functioning and purpose

The project 'Social Pattern Decoded' transforms Irish open data into a digital art exhibition that visualises socioeconomic characteristics of Dublin neighbourhoods. Its purpose is twofold: to make complex census data more accessible and engaging for the public, and to demonstrate how open data can inspire creative, non-traditional applications. By using a visual language of colours and shapes, the exhibition tells stories about education and age distribution across the city, turning raw statistics into aesthetically appealing and meaningful art pieces.

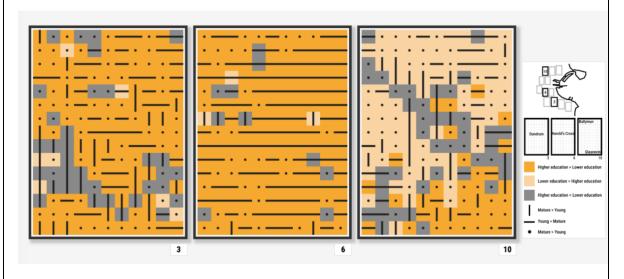


Figure 3: Three squares representing different neighbourhoods of Dublin based on education level and age distribution.

Target group

The primary audience includes the general public, educators, data enthusiasts and policy stakeholders interested in understanding social patterns in Dublin. The project also appeals to the arts and design community, showcasing how data can be a medium for creative expression, and to open data advocates, as an example of innovative reuse.

Datasets

The visuals are based on two main datasets from the **2022 Census of Population**:

- small area boundaries (spatial data): CSO Small Areas National Statistical Boundaries 2022;
- age data: F1012 Age Group of the Population;
- education data: <u>Education Characteristics (Census 2022)</u>.

These datasets were merged and transformed using the **Kuhn-Munkres algorithm** to create a grid layout that preserves spatial relationships while avoiding distortion caused by irregular area sizes.

<u>Impact</u>

The project demonstrates the power of open data to foster engagement and creativity. It makes demographic insights more approachable, encouraging individuals to explore social diversity in their city. By presenting data as art, it bridges the gap between technical information and public

understanding, promoting transparency and cultural appreciation of data. Additionally, it serves as a model for cross-disciplinary innovation, inspiring similar initiatives in education, urban planning, and community engagement.

Reuse case example from Denmark - SkoleGPT

Subdomain

Education and skills

Functioning and purpose

SkoleGPT is a generative AI chatbot developed by the Centre for Teaching Materials to support teachers in integrating AI into classroom activities. Its primary purpose is to provide a safe, General Data Protection Regulation (GDPR)-compliant environment for AI-based learning, ensuring that no student data is shared with third parties. By leveraging open-source technology and hosting the solution in Denmark, SkoleGPT guarantees data sovereignty and compliance with European data protection standards. The tool enables teachers to create engaging lessons where students can interact with AI, such as chatting with historical figures, thereby enhancing digital literacy and critical thinking.

Target group

The primary users are teachers and students in Danish schools. Teachers gain a secure, easy-to-use tool for introducing AI concepts without legal or ethical concerns. Students benefit from interactive learning experiences that improve their understanding of technology, data and its societal implications.

Datasets

SkoleGPT reuses open data sources to train language models for educational purposes, including:

- <u>SkoleGPT instruct dataset</u>: a Danish instruction dataset created for fine-tuning large language models for classroom use. It is based on a quality-filtered subset of the OpenOrca dataset, translated and adapted for Danish educational contexts.
- Historical and cultural open data: from Open Data DK and the Danish National Data Portal, this is used to create interactive scenarios such as 'chatting with historical figures.'
- Statistics Denmark data: <u>Statistics Denmark</u> provides official datasets that support educational and demographic context, often used in related projects and student collaborations.

Impact

SkoleGPT demonstrates how open data can directly contribute to raising a society's level of education and digital skills. By enabling students to interact with AI in a safe environment, the project promotes data literacy, critical thinking and responsible technology use — all key competencies for the future workforce. It also empowers teachers to confidently integrate AI into their teaching, reducing barriers to innovation in education. Beyond the classroom, SkoleGPT serves as a model for how open data and open-source technologies can be combined to create impactful, privacy-conscious solutions that strengthen digital inclusion and prepare individuals for a data-driven society.

Reuse case example from Slovakia – 'I don't have a car, I don't have a bus' analysis

Subdomain

Social inequality and the environment

Functioning and purpose

The 'Nemám auto, nemám autobus' ('I don't have a car, I don't have a bus') analysis serves as a strategic tool developed by the Institute for Environmental Policy within the Slovak Ministry of Environment. Its core purpose is to support the implementation of Slovakia's Social-Climate Plan by identifying regions and populations affected by transport poverty — a condition where individuals lack access to both private vehicles and reliable public transport. By introducing a Transport Poverty Index, the study provides a framework for evaluating mobility-related inequalities and guiding investments in sustainable transport solutions. It bridges environmental policy with social equity, ensuring that climate action does not leave behind those most vulnerable to systemic mobility barriers.

Target group

The analysis focuses on socially and geographically disadvantaged populations, particularly in underdeveloped regions. These areas are characterised by limited transport infrastructure, high unemployment and low household incomes.

Datasets

Key datasets from the <u>Slovakian open data portal</u> integrated into a composite index that quantifies transport poverty risk across Slovak municipalities include:

- household transport expenditure data (Výdavky domácností);
- census and demographic data (SODB2021);
- public transport accessibility metrics (verejná doprava) (e.g. number of public transport connections, travel time to key destinations, distance to nearest public transport stops);
- vehicle ownership and emissions data (Vozidlá);
- mobility behaviour and trip purpose data (Mobilita);
- unemployment and income data (Nezamestnanosť).

Impact

The analysis has had a tangible impact on both policy development and public awareness. It was cited in <u>national media</u>, helping to elevate the issue of transport poverty in the national conversation. More importantly, it has informed the <u>strategic direction</u> of Slovakia's use of the EUR 1.53 billion EU Social Climate Fund, ensuring that climate investments are aligned with the needs of vulnerable communities. The study's recommendations are now shaping a more inclusive and sustainable transport policy, one that recognises mobility as a fundamental enabler of social and economic participation.

Environmental impact

The 'environmental impact' subindicator evaluates the presence of research data on open data impact and reuse cases that pertain to (1) biodiversity, (2) environmentally friendly cities, (3) climate change and connected disasters and (4) energy consumption and the switch to renewables. Table 11 presents an overview of how countries responded to the questions on this topic.

Table 11: Country responses to questions on environmental impact

	Is there data	Is there a	Is there a reuse	Is there a	Is there a reuse
	on the impact	reuse case	case example	reuse case	case example
	created by	example	related to	example	related to
	open data on	related to	environmentally	related to	energy
	environmental	biodiversity?	friendly cities?	climate	consumption
	challenges?			change and	and the switch
				connected	to renewables?
				disasters?	
EU-27	16 Member	23 Member	24 Member	23 Member	24 Member
	States (59 %)	States (85 %)	States (89 %)	States (85 %)	States (89 %)
	report having	gave an	gave an	gave an	gave an
	such data	example of a	example of a	example of a	example of a
	available.	reuse case on	reuse case on	reuse case on	reuse case on
	Austria newly	this topic.	this topic. This	this topic.	this topic. This
	reports this.		has remained	This has	has remained
			stable since	remained	stable since
			2024.	stable since	2024.
				2024.	
EFTA	Like in 2024,	Like in 2024,	Like in 2024, all	Like in 2024,	Like in 2024, all
	Norway	all three	three countries	all three	three countries
	reports having	countries gave	gave an	countries	gave an
	such data.	an example of	example of a	gave an	example of a
		a reuse case	reuse case on	example of a	reuse case on
		on this topic.	this topic.	reuse case on	this topic.
				this topic.	
Candidate	North	Serbia and	Serbia and	Serbia and	Serbia and
	Macedonia	Ukraine gave	Ukraine gave an	Ukraine gave	Ukraine gave
	and Ukraine	an example of	example of a	an example	an example of a
	reports having	a reuse case	reuse case on	of a reuse	reuse case on
	such data.	on this topic.	this topic. This	case on this	this topic. This
		This has	has remained	topic. This	has remained
		remained	stable since	has remained	stable since
		stable since	2024.	stable since	2024.
		2024.		2024.	
L	l				

(Questions 122, 123, 124, 125 and 126)

The following are some interesting reuse cases reported on this topic.

Reuse case example from Sweden - Vultus

Subdomain

Agriculture and sustainability

Functioning and purpose

<u>Vultus</u> is a precision agriculture platform that provides farmers with field-specific fertiliser recommendations based on satellite imagery, weather forecasts and historical field data. Its primary purpose is to reduce nitrogen overuse, which contributes to greenhouse gas emissions and water pollution, while improving crop yield and input efficiency. The platform uses vegetation indices derived from Sentinel-2 satellite data (via the Copernicus Data Space Ecosystem) and localised weather data from the Swedish Meteorological and Hydrological Institute (SMHI) to assess crop health and predict nutrient needs. This enables farmers to apply the right amount of fertiliser at the right time, minimising environmental impact and maximising productivity.

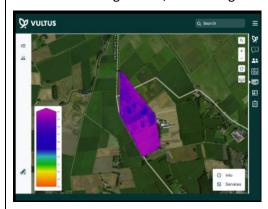


Figure 4: Overview of the Vultus platform dashboard displaying agriculture data on satellite imagery.

Target group

The primary users of Vultus are farmers, agronomists and agricultural cooperatives seeking to adopt data-driven, climate-smart farming practices.

Datasets used

Vultus's analytics are powered by a combination of open-access and proprietary datasets:

- <u>Copernicus satellite data</u> (Copernicus Data Space Ecosystem): used to generate vegetation indices (e.g. Normalised Difference Vegetation Index, Normalised Difference Red Edge Index) for monitoring crop health, biomass and water stress;
- <u>weather and climate data</u> (SMHI Open Data Portal): provides real-time and historical weather data for modelling crop growth and nutrient uptake.

<u>Impact</u>

Vultus has demonstrated measurable impact in reducing fertiliser use and improving sustainability in agriculture. In field trials with Swedish starch producer Lyckeby, Vultus's recommendations led to reduced input costs and lower environmental risks without compromising yield. The platform supports farmers in aligning with EU climate targets by reducing nitrous oxide emissions, a major contributor to agricultural greenhouse gases. By reusing publicly funded data from Copernicus and SMHI, Vultus exemplifies how open data ecosystems can drive innovation in climate-smart agriculture. Its model is scalable across geographies and crop types, making it a valuable tool for both individual farmers and national sustainability programmes.

Reuse case example from Portugal – Predictive models for liquid and atmospheric pollutants in Lisbon.

Subdomain

Environmental pollution

Functioning and purpose

The Urban Co-Creation Data Lab in Lisbon developed a <u>set of predictive modelling tools</u> that simulate the propagation of liquid and atmospheric pollutants in urban environments. These tools are designed to support emergency planning and public health protection by forecasting how pollutants might spread in various hazard scenarios. The models use municipal open data to simulate real-time and hypothetical events, such as industrial spills or gas leaks, allowing authorities to pre-emptively design containment strategies and minimise health risks. The initiative reflects a proactive approach to urban resilience, integrating data science into civil protection workflows.

Target group

The primary beneficiaries of this initiative are municipal emergency planners, civil protection services and environmental health authorities.

Datasets used

The predictive models are built using a combination of municipal and national open datasets, including:

- urban infrastructure and terrain data from Lisbon's municipal repositories;
- meteorological data from the Portuguese Institute for Sea and Atmosphere.

These datasets are integrated into simulation engines developed in partnership with the <u>Barcelona Supercomputing Centre</u>, enabling high-resolution modelling of pollutant dispersion across Lisbon's urban landscape.

Impact

The project has demonstrated potential value through two detailed simulations:

- a natural gas leak in the Alcântara district was modelled to understand how gas would spread in a busy area containing homes, hospitals and tourist spots;
- a **chemical spill** at Roma-Areeiro train station was simulated to assess risks to nearby residents and infrastructure.

These use cases illustrate how open data can be reused to anticipate environmental hazards, inform emergency planning and support public health protection. By making the models and visualisations publicly available, UrbanDataLab promotes transparency and encourages other cities to explore similar approaches.

Economic impact

The 'economic impact' subindicator evaluates the presence of research data on open data impact and reuse cases that pertain to (1) employment, (2) innovation and adoption of new technologies, (3) entrepreneurship and business creation and (4) productivity. Table 12 presents an overview of how countries responded to the questions on this topic.

Table 12: Country responses to questions on economic impact

	Is there data on the impact created by open data on economic challenges?	Is there a reuse case example related to employment?	Is there a reuse case example related to innovation and new technologies?	Is there a reuse case example related to entrepreneurship and business creation?	Is there a reuse case example related to productivity?
EU-27	18 Member States (67 %) report having such data available. This is an increase of two countries, Latvia and Hungary, from 2024.	20 Member States (74 %) gave an example of a reuse case on this topic.	21 Member States (78 %) gave an example of a reuse case on this topic. This has remained stable since 2024.	20 Member States (74 %), with the recent addition of Slovenia, gave an example of a reuse case on this topic.	19 Member States (70 %) gave an example of a reuse case on this topic. This is an increase of two countries, Austria and Slovenia, from 2024.
EFTA	Like in 2024, Norway reports having such data available.	In 2025, Norway newly reported an example of a reuse case on this topic.	All three countries gave an example of a reuse case on this topic, with Norway as the latest addition.	All three countries gave an example of a reuse case on this topic. This has remained stable since 2024.	In 2025, Norway newly reported an example of a reuse case on this topic.
Candidate	Like in 2024, Ukraine reports having such data available.	Like in 2024, Serbia and Ukraine gave an example of a reuse case on this topic.	Like in 2024, Serbia and Ukraine gave an example of a reuse case on this topic.	Like in 2024, Serbia and Ukraine gave an example of a reuse case on this topic.	Like in 2024, Serbia and Ukraine gave an example of a reuse case on this topic.

(Questions 127, 128, 129, 130 and 131)

The following are some interesting reuse cases reported on this topic.

Reuse case example from Latvia - Riga TechGirls

Subdomain

Entrepreneurship and education

Functioning and purpose

<u>Riga TechGirls</u> is an initiative in Latvia dedicated to inspiring and educating women and girls about technology. Its mission is to close the gender gap in tech and foster digital inclusion by integrating open data into practical training programmes. Through initiatives like Work in Tech, the programme equips participants with skills in data analysis, visualisation and IT fundamentals, preparing them for careers in the digital economy.

Target group

The programme targets women and underrepresented groups seeking to enter or transition into technology careers. It also supports aspiring entrepreneurs who want to leverage open data for innovation, while indirectly benefiting employers and the broader tech ecosystem by supplying a digitally skilled workforce.

Datasets used

Participants work with open datasets, including:

- public transport flow data from the Riga City Council GeoRiga Open Data Portal;
- demographic and population statistics from the <u>Central Statistical Bureau of Latvia</u>;
- **budget expenditure and environmental indicators** (e.g. air quality, pollution) from the <u>Latvian open data portal</u>;
- international datasets from the <u>European Data Portal</u> and <u>World Bank Open Data</u>.

Impact

The programme has introduced tens of thousands of women to IT since 2020, with over 45 000 participants in training, hackathons and mentoring programmes, improving digital literacy and employability in Latvia. It fosters entrepreneurship and innovation through hackathons and accelerator-style programmes and promotes inclusion by targeting women and minorities. The use of teaching tools such as Python, SQL, Tableau, and Google Looker Studio, Riga TechGirls enhances data-driven decision-making and tech adoption, indirectly boosting productivity across sectors.

Reuse case example from Lithuania – Rekvizitai company comparison platform

Subdomain

Employment

Functioning and purpose

Rekvizitai is a Lithuanian company comparison platform that aggregates and publishes open data on businesses to enhance transparency and informed decision-making. The platform allows users to compare companies based on size, financial health, number of employees and average salaries. Its primary purpose is to help job seekers evaluate potential employers and assist businesses in benchmarking against competitors.

Target group

The platform serves job seekers, who use it to assess salary levels and company stability, and businesses, which leverage the data for competitive analysis and risk assessment. It also benefits researchers and analysts interested in market trends and labour dynamics.

Datasets used

Rekvizitai.lt combines multiple official open data sources, including:

- company registry data from the <u>Lithuanian Register of Legal Entities</u>;
- **employment and salary data** from the State Social Insurance Fund Board (Sodra) (Sodra Open Data);
- **financial indicators** such as turnover and tax compliance from public registers (Lithuanian open data portal).

Impact

Rekvizitai.It improves **labour market transparency** by publishing average salaries per company and tracking changes over time, enabling job seekers to make informed career decisions. For example, users can view gross salary averages for specific companies and compare them across sectors (<u>salary data example</u>). Businesses benefit from benchmarking tools and application programming interface (API) integration for human resources and customer relationship management (CRM) systems, supporting data-driven decision-making. This contributes to greater market efficiency, reduced information asymmetry, and better matching between employers and employees.

Reuse case example from Norway – Economic impact assessment of open petroleum data

Subdomain

Economic impact assessment

Functioning and purpose

The Norwegian Offshore Directorate (formerly the Norwegian Petroleum Directorate) commissioned an impact assessment to evaluate the economic value of its data management and sharing practices. The directorate manages one of the world's largest petroleum data repositories, and the study aimed to determine how open access to this data contributes to value creation on the Norwegian Continental Shelf.

Target group

The assessment focused on licensees and operators in the petroleum industry, as well as service companies and research institutions that depend on high-quality geological and operational data for exploration, production and innovation.

Datasets used

The analysis covered the directorate's core open datasets (accessible via the <u>Norwegian open data portal</u>), including:

- FactPages and FactMaps: detailed data on wells, fields and licenses;
- geophysical and seismic data: including historical and new surveys;
- CO₂ Storage Atlas: mapping safe storage sites for carbon capture (CO₂ Atlas);
- **seabed mineral survey data**: for future resource development.

Impact

According to the Menon Economics report, the directorate's open data generates annual gains of approximately NOK 1.5 billion for licensees and operators. These benefits arise from time and resource savings, improved data quality and faster decision-making processes. The study emphasises that these gains would not be possible without open data sharing. Beyond immediate cost savings, the report highlights the strategic importance of these datasets for future industries, including carbon capture and storage and seabed mineral extraction, positioning Norway as a leader in sustainable energy transition.

7.5. Recommendations

Countries can use the following general advice to improve on the impact dimension of the ODM methodology. The recommendations are tailored to four nominal levels of maturity, ranging from beginners to trendsetters.

Trendsetters

- Collaborate with the European Data Portal and other national data teams to implement an impact assessment framework for open data. The European Data Portal is currently developing, in collaboration with countries, an impact assessment framework and accompanying toolkit that countries can implement and adapt to their national context.
- In addition, start developing country-specific metrics to measure impact in domains that align with national priorities. Operationalise monitoring metrics and evaluating impact. Rely on a mix of methods (e.g. ex ante and ex post analyses, structured/semi-structured interviews, use cases, log analyses from the national portal) to gain a variety of insights. Improve your methods iteratively over time.
- Prioritise the understanding of HVD reuse cases and their potential positive impact on society. As
 part of these efforts, publish and promote successful reuse cases on the portal and regularly
 interact with data providers and users to better understand their needs and explore potential
 applications of these datasets. Leverage the momentum created by showcasing the results to rally
 stronger political support.

Fast-trackers

- Promote and follow up on the performance of products and services built on open data. Consider highlighting the developers of these reuse cases.
- Focus resources on a relevant field or sector to demonstrate impact and use the specifications on HVDs for prioritisation. Set up thematic work groups in these areas. Increase your knowledge on the publication and reuse of data in the domain you have chosen to focus on and start thinking about a definition of impact in this field that can be operationalised through metrics.
- Create a framework for knowledge exchange and enable the development of a community of practice made up of providers and reusers.

Followers

- Start collecting examples of how open data is being reused, even informally, to build internal awareness and momentum.
- Use basic analytics tools: leverage portal statistics (e.g. downloads, views) to begin tracking usage patterns and identify high-interest datasets.
- Conduct short interviews or surveys with known data users to understand their needs and the value they derive from open data.

Beginners

- Organise short sessions or presentations to explain why measuring reuse and impact matters, using simple examples from other countries.
- Begin collecting simple usage data from the national portal (e.g. number of datasets published, views) to establish a baseline.
- Reach out to universities or civic tech groups to identify potential collaborators who can help uncover early reuse cases or provide guidance.

