Open Data Maturity

Impact

2024

Open Data Maturity Report

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Chapter 7: Open data impact

The open data directive (Directive (EU) 2019/1024) and the implementing regulation on high-value datasets (HVDs) (Regulation (EU) 2023/138) encourage EU Member States to promote the reuse of public sector information, aiming to generate economic, environmental and societal benefits. Open datasets tend to be further processed to create new insights or solutions known as reuse cases. This typically involves transforming or integrating the data with other sources and using specialised tools or analytical methods to extract value. This is what can be referred to as the impact of open data. Impact is 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	There is a national definition of open data reuse. Mechanisms are in place at the national, regional or local level to monitor and foster open data reuse, including in relation to HVDs. A methodology exists to measure the impact derived from reusing open data.
Measuring reuse	Tools are in place to understand which datasets are reused and how. There is a process for gathering and classifying reuse cases systematically. Activities are performed to better understand reusers' needs.
Created impact • **governmental** • **social** • **environmental** • **economic**	The impact created by open data has been systematically studied, and reuse examples exist that showcase the impact of open data in the governmental, social, environmental and economic domains.

This chapter will first present 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 2024, the impact dimension is the third most mature dimension of the ODM assessment, with the EU-27 scoring 80.5 % on average (Figure 1). Maturity in this dimension has grown during 2022–2024, increasing by 6 percentage points (pp) between 2022 and 2023 and by 4 pp between 2023 and 2024. This increase at the dimension level has been driven by improvements in all three underlying indicators. Like the dimension overall, the indicators have demonstrated stable growth during 2022–2024, with the 'measuring reuse' indicator and the strategic awareness' indicator reaching 88 %, an increase of 7 pp and 5 pp on 2023, respectively., and the 'created impact' indicator reaching 75 % (an increase of 3 pp on 2023). The 'measuring reuse' indicator has grown the most since 2023, highlighting countries' efforts to set up methodologies for collecting and classifying reuse cases and to enhance activities aimed at understanding reuser requirements.

In terms of individual country performance, 11 countries reported performing all the activities investigated in the questionnaire, scoring 100 % on this dimension (Figure 2). **Denmark** and **Ireland** followed closely, reaching a nearly perfect score of 97 % and scoring 100 % on the 'strategic awareness' indicator. **Ukraine** is the only non-EU country to have scored 100 % on this dimension. Overall, 18 countries scored above the EU average of 80.5 %.

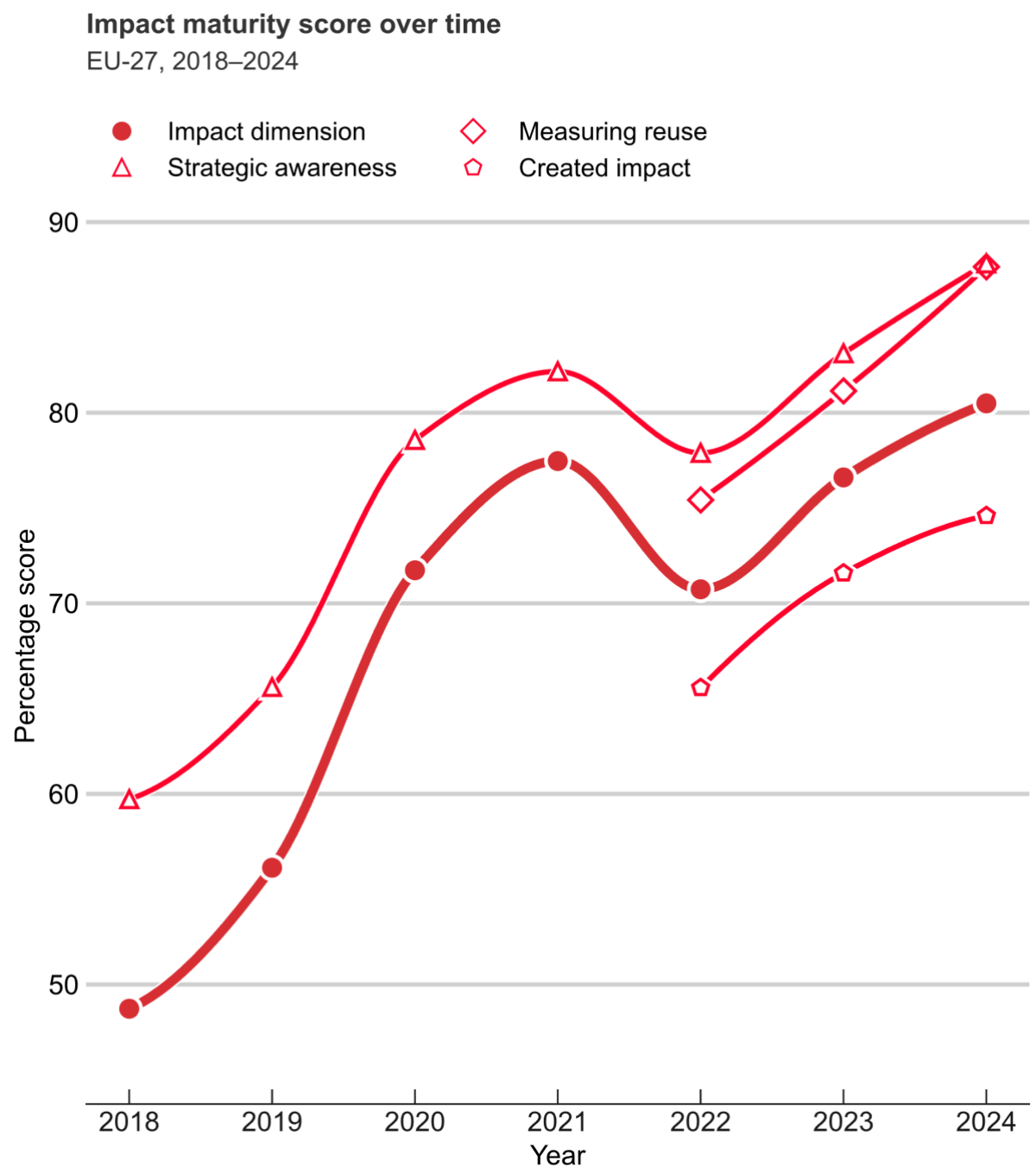


Figure 1: The EU-27 average score on the impact dimension has risen steadily during 2022–2024

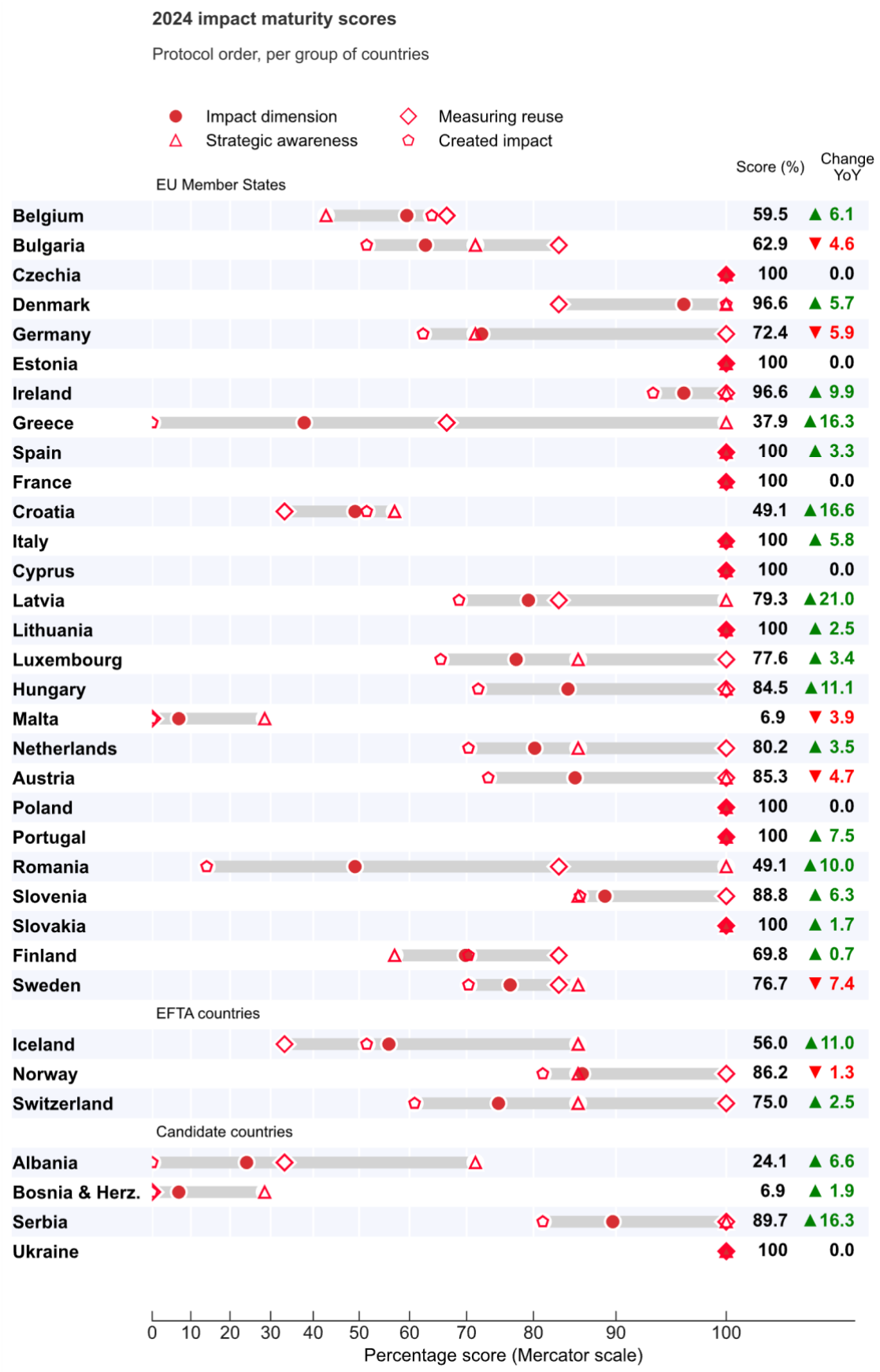


Figure 2: Twenty-two participating countries improved their score on the impact dimension in 2024. (EFTA: European Free Trade Association; YoY: year-on-year).

Highlight from France – measuring the impact of open data

Measuring the impact of open data presents a challenge, primarily due to the lack of a standardised definition of open data impact and the difficulty of quantifying the effects of open data reuse. To address this, many countries have developed standardised frameworks that combine qualitative and quantitative indicators to make the impact of open data more tangible. In several instances, these national frameworks have drawn inspiration from, or been aligned with, efforts undertaken at the EU level, particularly through initiatives like data.europa.eu.

In **France**, the data.gouv.fr team conducted an extensive impact survey in 2023 to measure how open data influences various sectors. The survey was guided by a methodology developed in France for impact measurement, which was inspired by EU-level work, specifically the indicators for an open data impact assessment framework. This framework is structured to measure the effects of open data on multiple dimensions, including governmental, environmental, social and economic impacts. The two main components of the framework are as follows.

- **Outputs.** The study measured indicators like the number of datasets, views, downloads, reuses and discussions in 2023, helping to quantify data usage and engagement.
- **Outcomes.** Reuse cases were selected from the data.gouv.fr reuse catalogue, the beta.gouv.fr platform for digital public services, and research publications. These cases were chosen based on their potential impact, the availability of information and their relevance across the four impact categories.

For each use case, the survey team analysed the specific impacts of data reuse, sometimes conducting interviews with the creators to better understand the services and benefits. The findings are presented in a paper that can be downloaded from data.gouv.fr.

Read more about this trend in Section 7.2.

Latvia (+ 21 pp), **Croatia** (+ 17 pp), **Serbia** (+ 16 pp), and **Greece** (+ 16 pp) are countries that showed the most significant year-on-year improvements in the impact dimension. **Greece's** improved maturity relates primarily to a large increase in the 'measuring reuse' indicator, because Greece now reports having set up monitoring mechanisms to collect and classify reuse cases. Like many countries, Greece has launched several initiatives to monitor open data reuse, such as actively involving academic institutions and the private sector in performing studies and analyses on open data usage. Additionally, efforts to increase public awareness are evident through the workshops, open dialogue sessions and hackathons that have been organised and that foster a culture of open data across different sectors. In future years, Greece can use these methods to gain a better overview of existing reuse cases and further improve its ODM maturity score.

Highlight from Greece – the Open Data Hackathon

An important practice observed in this year's report is organising hackathons that involve numerous stakeholders to foster a culture of reusing open data across different sectors.

For example, the Open Data Hackathon in **Greece** is an initiative to promote innovation using open data. The event encourages participants – developers, entrepreneurs, students and professionals – to create prototype applications addressing challenges related to digital transformation across various sectors like energy, transport and real estate. It aims to foster collaboration between public and private sectors, create an innovation ecosystem and improve citizen services. The hackathon includes a mix of participants from different fields and offers mentorship, with prizes and opportunities for those who design the best solutions.

Read more about this trend in Section 7.2.

Latvia's improved maturity is primarily driven by increased awareness of reuse cases that demonstrate open data impact, particularly in the environmental and economic sectors. The country has made significant strides in monitoring environmental impact, a trend observed in several countries. Many countries, including Latvia, have also introduced initiatives to raise public awareness of open data through official guidelines for both the public and government bodies. For example, Latvia's 'Open by default' guideline sets the standard at making all data open unless there is a strong reason not to, encouraging widespread data transparency and reuse.

Highlight from Latvia – the transport website

This year, a generalised trend across countries is the reporting of reuse cases that focus on monitoring air and water quality, carbon dioxide emissions and the transport sector. For example, the website transportdata.gov.lv in **Latvia** serves as a platform for open transport data. It offers various datasets, including traffic statistics, public transport schedules, infrastructure information and vehicle registration data. The website provides interactive maps to visualise transport datasets. Users can also find analytical tools they can use to explore and interpret the data more effectively. This functionality enhances the usability of the datasets, allowing for better insights and informed decision-making regarding transport planning and development.

This resource is useful for researchers, developers and policymakers, as it enables informed decision-making, promotes transparency and encourages innovation in transport solutions. Users can access and utilise these datasets for analysis and application development, which benefits public services and urban planning.

Read more about this trend 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.

Definition of open data reuse

In general, 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: Countries' responses to questions on definition of open data reuse

Do you have a definition of open data reuse in your country?	
EU-27	Like in 2023, 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 2023.
Candidate	**Albania**, **Serbia** and **Ukraine** report having a definition of open data reuse. This is the same as in 2023.

(Question I1)

The definition of open data reuse varies across countries. Commonalities exist, such as the emphasis on reusing public data for a purpose other than the originally intended one and enabling innovation through the development of applications, analyses or services that benefit the public. However, differences emerge in the legal frameworks, the scope of data included and the conditions of use. For example, **Ireland's** definition of reuse follows the open data directive, defining it as the use of public sector documents by individuals or legal entities. Data is considered open if anyone can freely use, reuse and redistribute it, subject to minimal conditions like attribution.

> **'Public information contained in documents communicated or published by the administrations mentioned in the first paragraph of Article L. 300-2 may be used by any person who wishes to do so for purposes other than those of the public service mission for which the documents were produced or received'**
>
> **France, Code of Relations between the Public and the Administration**

Some countries stress creative and open reuse, while others highlight specific legal guidelines tied to national or EU directives. For example, in **Slovakia**, the reuse of open data is primarily defined as the creative use of open data by various sectors, including non-governmental organisations and universities, to generate new solutions like applications, analyses or software, improving transparency, efficiency and innovation.

> **'The use by natural or legal persons of documents held by public administrations or bodies governed by public law for commercial purposes or for non-commercial purposes other than the institutional purposes for which the documents were produced, with the exception of the exchange of documents between public administrations'**
>
> **Italy, Legislative Decree 200 of 8 November 2021 transposing the open data directive**

Countries sometimes include specific qualifications in their definitions. For example, **Bulgaria** explicitly excludes the internal exchange of documents within public bodies from its definition. Countries also sometimes link their definition to multiple frameworks. For instance, **Austria** noted that reuse is guided by the principles of open government and governed by the Creative Commons licence CC BY 4.0.

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: Countries' 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.	23 Member States (85 %) report a strong focus on encouraging public bodies to monitor data reuse. This represents a two-country increase compared with 2023, with **Finland** and **Greece** being the latest additions.
EFTA	All three participating EFTA countries report having processes in place to monitor the level of reuse. **Switzerland** is the latest country to report doing this.	**Iceland** and **Switzerland** report encouraging public bodies to measure the reuse of their own open datasets.
Candidate	Like in 2023, **Serbia** and **Ukraine** report having processes in place to monitor the level of reuse.	Like in 2023, **Serbia** and **Ukraine** report encouraging public bodies to measure the impact of open data.

(Questions I2, I3)

Countries approach monitoring the reuse of open data differently. Some countries have established frameworks and methodologies for tracking reuse, while others rely on informal feedback mechanisms or community contributions. Many countries emphasise the importance of monitoring to improve open data quality and foster better services for users.

Sweden noted that its monitoring of reuse involves collecting qualitative feedback through events and social media. Additionally, the national data portal enables users to share their reuse cases and provides download statistics as a measure of reuse. In **Ukraine**, monitoring of the level of open data reuse is supported by legislative mechanisms that focus on various aspects of open data development, including policy, capacity and quality. The Ministry of Digital Transformation maintains a catalogue of applications that utilise open data, updated regularly by users.

Highlight from Slovenia – using Matomo to upgrade the monitoring framework
Slovenia has made significant strides in monitoring the reuse of open data through its open data portal (the Open Data of Slovenia (OPSI) portal). It is upgrading its monitoring framework and utilising Matomo analytics. The Surveying and Mapping Authority (GURS) has agreements in place to facilitate monitoring. Data use has been systematically tracked since 2005, with advanced analytics employed to understand user needs.

Furthermore, countries implement various activities to encourage public bodies to monitor the reuse of their published open data. These activities include training programmes, workshops and direct communication with public entities to foster awareness of data impact and to encourage them to undertake monitoring practices. Many countries have established frameworks or organised events that bring together different stakeholders to share knowledge, tools and incentives to promote the effective monitoring of open data reuse.

For example, **Cyprus** has implemented a structured training programme for public sector information liaison officers, which includes a module dedicated to understanding and measuring the impact of open data. The open data team also supports events that highlight government-to-government reuse, fostering awareness among public sector bodies. Moreover, **Finland's** operating model for sharing data includes specific guidance and instructions for public bodies on monitoring data reuse, thus helping to create a structured approach to assessing the impact of their published data.

High-value datasets

Having robust processes in place to monitor and measure the reuse of HVDs can support measures and strategies applying the implementing regulation on HVDs. Table 4 presents an overview of how countries responded to the questions on this topic.

Table 4: Countries' 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	19 Member States (70 %) report having processes in place to monitor the reuse of HVDs.

(Question I4)

Non-EU countries were not surveyed on this question, since Commission Implementing Regulation (EU) 2023/138 on HVDs applies only to EU Member States.

Processes for monitoring and measuring the reuse of HVDs often involve using national portals for data management, consulting legislative requirements on metadata provision and implementing structured reporting mechanisms. For example, in **Hungary**, government bodies monitor the availability and reuse of HVDs primarily through the national open data portal. Act CI of 2023 mandates that all public bodies provide metadata to the national portal, facilitating oversight. The National Data Asset Management Agency serves as a central point for requests related to HVDs, and, from 2026, the agency will provide its own HVDs.

As another example, **Romania**'s methodological guidelines include templates for yearly reporting, mandating institutions to monitor the reuse of HVDs through various approaches. This structured approach aims to ensure comprehensive tracking of data usage and compliance with open data standards.

Furthermore, several countries are using the same processes to monitor HVDs as they do for other types of datasets. However, as noted by **Greece**, in some cases, datasets must still be denoted as HVDs before their impact can be fully monitored.

Defining and measuring the impact of open data

There is no universal definition of open data impact, particularly since open data can have an impact in diverse domains. 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: Countries' 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, with **Greece** being the latest addition to the group.	23 Member States (85 %) report having a methodology in place to measure the impact of open data, with **Greece** and **Hungary** being the latest countries to report having such a methodology.
EFTA	All three participating EFTA countries report having a definition of open data impact.	**Norway** and **Switzerland** report having a methodology in place to measure the impact of open data.
Candidate	**Albania**, **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.

(Questions I5 and I6)

Countries have made various attempts to measure the impact of open data. These efforts are usually integrated into a general national strategy on open data and have as their basis the methodological collection of open data through a variety of sources and the analysis of this data through quantitative indicators. While some countries apply the same methodology to all types of open data, others use a specific methodology according to the category of data they are dealing with.

Highlight from Spain – the Aporta initiative

Spain's approach to defining the impact of open data is framed within the Aporta initiative, which serves as the country's national strategy on open data. There follows a detailed breakdown.

1. **Current definition within the Aporta initiative**

According to the Aporta initiative strategy document (p. 5), impact is understood as: 'any positive effect or benefit, obtained directly or indirectly for individuals, communities or society, which occurs over a certain period and results from the development of various activities characterised by the use of open data toward a specific goal'. This definition encompasses both direct and indirect benefits and highlights that open data usage can have a long-term positive influence on different sectors of society.

2. **Measuring impact**

In practice, Spain considers it essential to evaluate open data's impact using both quantitative measures (e.g. data usage statistics, number of datasets released) and qualitative measures (e.g. societal and community benefits). This dual approach helps capture the volume of data reused and its broader effects on society, such as transparency, innovation and public service improvements. For more context, see the discussion on the Aporta blog 'Measuring the impact of open data'.

3. Future developments

The new national open data strategy, which is currently in development, seeks to refine this approach even further. It recognises the need to evolve from a largely quantitative framework to a more comprehensive approach that incorporates qualitative measures of open data impact. The goal is to create a more nuanced and accurate understanding of how open data benefits society beyond basic metrics. For the latest updates, refer to the draft of the new strategy.

With regard to monitoring the reuse of open data, **Sweden** noted the importance of a user-driven process for opening up data and maintaining continuous user dialogues. It collects insights into the reuse of open data through the following efforts.

- **Seminars.** Public events where stakeholders discuss the importance and effects of open data.
- **National projects.** These aim to boost the use of open and shared data.
- **Dialogues and networking.** Engagement with public organisations that release open data helps track reuse and impact.
- **Social media groups.** Monitoring relevant groups to gain insights into how data is used.
- **Open data portals.** Public bodies, including at the local level, monitor application programming interface usage and apply web analytics to understand how the data is being reused.

Taking a different approach, **Italy** has incorporated methodologies for measuring the impact of open data into broader ICT-related initiatives. The three-year plan for ICT in the public administration includes specific actions on data and open data, which are measured annually. The plan's monitoring platform provides insights into the extent of open data usage and its impact on digital services. Progress on the plan is monitored through a dedicated portal, where relevant data is available in an open format. By analysing the fulfilment of objectives set in the plan, the government can measure the influence of open data on various sectors. This approach provides a structured way to measure both the development and the reuse of open data, focusing on real-world applications and digital services created through open data access.

Highlight from Poland – the impact of open data on entrepreneurship

Poland has developed a methodology for a nationwide study on the size and characteristics of the public data reuse market in Poland. This has enabled it to define key parameters for assessing the impact of open data on entrepreneurship. With some modifications and further testing, these parameters can be adapted to measure the effects of open data on other economic and sociocultural areas, whether for specific social groups or society as a whole.

Poland conducted the study using a quantitative survey through computer-assisted telephone interviews with representatives of companies involved in data management or analysis, or those in other types of companies who were best informed about the company's data usage. The study team employed a stratified random sampling method to ensure representativeness, accounting for four business size categories and regional divisions across provinces. This approach meant that they were able to generalise their findings to the entire population of entrepreneurs. A total of 600 interviews were conducted.

Moving forward, Poland plans to apply this methodology, with necessary adjustments, to other social groups, enabling it to test and refine open data impact indicators. Thus, it views this survey among entrepreneurs as a pilot for a broader framework to measure the impact of open data.

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: Countries' 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	25 Member States (93 %) report that they ensure collaboration between government and civil society or academia to create open data impact. Unlike in 2023, **Germany** and **Malta** did not report doing this in 2024.
EFTA	All three participating EFTA countries ensure collaboration between different parties to create open data impact.
Candidate	All four participating candidate countries ensure collaboration between different parties to create open data impact.

(Question I7)

Collaboration among a diverse range of stakeholders is essential for maximising the benefits of open data. Fostering a robust open data culture and promoting a wide array of data collection efforts can increase overall impact. This year, numerous countries reported improved collaboration between the private and public sectors and educational institutions. These partnerships have led to initiatives such as hackathons, webinars and other events aimed at encouraging the innovative reuse of open data across various fields.

Highlight from Ireland – Open Data Engagement Fund

The **Irish** 2023/2024 Open Data Engagement Fund is an initiative designed to enhance the use and accessibility of open data in Ireland. With a total funding pool of € 30 000, this programme invites applications from a broad range of participants – including individuals, businesses, public bodies and civil-society groups – for support for projects that promote innovative uses of datasets available on the national open data portal. The fund aims to foster transparency, drive public engagement and encourage collaboration across various sectors by funding outreach activities, application development and research that illustrates the potential benefits of open data.

The initiative emphasises the strategic goal of maximising the impact of open data in improving public service efficiency and informed decision-making. By prioritising projects that demonstrate tangible benefits, the fund seeks to raise awareness about the available datasets and encourage the development of solutions that address current societal challenges.

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: Countries' 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.	24 Member States (89 %) report that public bodies perform activities to better understand reusers' needs. This is an increase of one country, **Romania**, from 2023.
EFTA	All three participating EFTA countries report performing activities to understand which datasets are being reused and how.	**Norway** and **Switzerland** report that public bodies perform activities to better understand reusers' needs.
Candidate	All participating candidate countries, **except Bosnia and Herzegovina**, report performing activities to understand which datasets are being reused and how.	**Serbia** and **Ukraine** report performing activities to better understand reusers' needs.

(Questions I8 and I9)

The most common activity performed to understand how datasets are reused is running interviews or workshops with reusers (25 Member States; 93 %), followed by conducting surveys (19 Member States; 70 %) and using web analytics (18 Member States; 67 %). Similarly, the most common activity performed to understand reuser needs was feedback sessions with portal users (21 Member States; 78 %), followed by sentiment analysis of social media (13 Member States; 48 %). For example, **Finland's** Helsinki Region Infoshare (HRI) conducts an annual user survey to gather feedback on its services. Additionally, a separate survey was conducted in 2024 among employees of the City of Helsinki to assess their awareness of and experiences with HRI, revealing that, while few knew about HRI, those who did had had positive experiences.

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: Countries' 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 is an increase of three countries, **Greece**, **Latvia** and **Romania**, from 2023.	18 Member States (67 %) report that public bodies have developed systematic ways of classifying reuse cases. This is an increase of three countries, **Greece**, **Portugal** and **Slovakia**, from 2023.
EFTA	**Norway** and **Switzerland** report that public bodies have developed systematic ways of gathering reuse cases.	**Norway** and **Switzerland** report that public bodies have developed systematic ways of classifying reuse cases.
Candidate	**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.

(Questions I10 and I11)

In 2024, the emphasis on data reuse has increased, as indicated by the development of innovative strategies that promote collaboration and community involvement. Key trends include systematic documentation of reuse cases through user submissions and interviews, centralised portals showcasing best practices and the implementation of user-driven tagging systems for easier navigation. These initiatives reflect a growing recognition of data reuse as a vital driver of innovation and collaboration across various sectors.

For example, **Cyprus** outlined its multifaceted approach to gathering reuse cases in the country's latest impact survey. The mechanism includes a range of activities designed to systematically identify and collect reuse cases while fostering a more engaged and collaborative data ecosystem. These activities include:

- **annual desktop studies** that actively search for and document examples of data reuse;
- an **online submission form** through which users can submit their applications and reuse cases, which are then showcased on various data portals;
- **interviews with key data reusers**, providing insights into how data is being utilised and repurposed in innovative ways;
- leveraging **social media groups** to actively encourage discussions and sharing of reuse cases among the community.

In **Hungary**, a central function of the national open data portal is the collection and presentation of applications and visualisations that showcase data reuse. This process involves establishing cooperation agreements with public authorities, from which the agency gathers examples of how open data is being reused. By facilitating the documentation of such cases, the portal highlights best practices and successful applications, creating a valuable resource for both public and private stakeholders. The portal also provides a platform where reuse examples are regularly published, ensuring transparency and promoting further reuse of data.

Highlight from Luxembourg – the Luxembourgish open data platform
To organise reuse cases on its portal, **Luxembourg** uses thematic categories and tags to make navigating and identifying relevant examples easier. Each reuse case is linked to a specific topic, such as agriculture, economy and finance, or environment and climate. This enables users to browse reuse cases by sector of interest. Additionally, the portal supports user-generated tags, providing more flexibility in how reuse cases are classified. This tagging system enables users to add relevant keywords that further describe the nature of the reuse, creating a more detailed and customisable search experience. By combining these thematic categories with user-driven tags, Luxembourg ensures that the reuse cases are systematically classified and easily searchable by the broader public.

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: Countries' 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 is an increase of three countries from 2023.	23 Member States (85 %) gave an example of a reuse case on this topic.	24 Member States (89 %) gave an example of a reuse case on this topic.	21 Member States (78 %) gave an example of a reuse case on this topic.	21 Member States (78 %) gave an example of a reuse case on this topic.
EFTA	**Norway** reports having such data available.	Like in 2023, all three participating EFTA countries gave an example of a reuse case on this topic.	All three participating EFTA countries gave an example of a reuse case on this topic, with **Iceland** being the latest addition.	All three participating EFTA countries gave an example of a reuse case on this topic, with **Iceland** being the latest addition.	All three participating EFTA countries gave an example of a reuse case on this topic, with **Iceland** being the latest addition.
Candidate	**Ukraine** reports having such data available.	**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.	**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.

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

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

Reuse case example from Serbia – the Open Budgets platform

Subdomain

Transparency and accountability.

Functioning and purpose

The Open Budgets platform is an open data portal providing access to Serbia's detailed public budget information. It is a government initiative aimed at promoting financial transparency by enabling users to explore how public money is being allocated and spent. The platform centralises data from around 200 national and local budgets, making it easily accessible and understandable for a wide audience. The portal enables users to:

- view and download budgetary data in various formats (e.g. charts, tables, raw data);
- explore different levels of budgetary information, from overall national expenditures to specific sectoral and municipal allocations;
- track historical trends and changes in budget planning and execution.

Once a specific region is selected, the user can delve into the municipality's revenues or expenditures. For example, Figure 3 displays the expenditure for the municipality of Belgrade. Here, the user can see where the budget comes from, which areas it is allocated to and how it is spent.

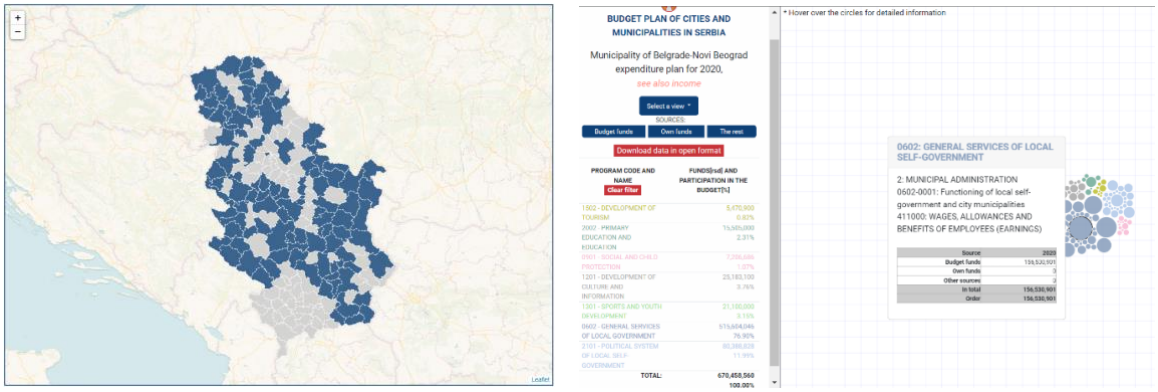


Figure 3: Serbia's Open Budgets platform

Target group

The users target are very diverse. The website provides instructions for using the platform in the form of video tutorials for citizens and local self-government units.

Datasets used

The datasets used include national budget data, local government budget data, historical budget data and data on sector-specific spending. All users who have created a visualisation, application or other use case that could enhance the user experience or the data provided by the portal are invited to contact the open data team at opendata@ite.gov.rs.

Impact

The platform plays a transformative role in governance by enhancing public oversight and fostering informed policy discussions. By providing accessible budget data, it empowers citizens and civil society to monitor government spending, promoting accountability and responsible fiscal management. This transparency builds trust between citizens and the government, and it enables researchers and policymakers to engage in meaningful discourse on fiscal policies. By helping them to understand budget allocations, the platform encourages citizens to participate actively in

democratic processes, advocating for effective governance, thus ensuring that their voices are heard in budgetary decision-making.

Reuse case example from Spain – the digital twin of Denia

Subdomain

Decision-making processes in public administrations.

Functioning and purpose

The city of Denia, in Alicante, Spain, has developed a digital twin, a virtual model of the city that integrates real-time data to help the local government analyse patterns and trends in tourism. This tool uses public datasets to simulate Denia's physical environment and tourism dynamics, enabling city planners to assess accessibility, plan new infrastructure and make data-driven decisions to manage tourism more effectively.

The digital twin provides detailed insights into tourists' movement, behaviour and spending patterns, making it possible to better allocate resources and improve public services. By understanding where national and international visitors concentrate, the model helps the local government and businesses optimise services, promote areas and forecast demand for public amenities. The primary goal of Denia's digital twin is to improve the city's tourism management by:

- identifying patterns and trends in tourist behaviour;
- assessing the accessibility of tourism resources, such as infrastructure, accommodation and tourist attractions;
- planning and optimising new tourism-related infrastructures based on data-driven insights;
- analysing visitor movement, traffic and spending habits to make more informed decisions about resource allocation and service provision;
- enhancing the overall tourism experience while optimising city planning.

Target group

The target groups for the digital twin initiative include local government officials, tourism agencies, civil engineers, researchers and citizens.

Datasets

The digital twin of Denia relies on several key datasets to construct and update its model:

- **Directorate-General of Cadastre dataset.** The dataset provides detailed information on buildings and property layouts in Denia, which is useful for urban mapping and infrastructure analysis.
- **PNOA-LiDAR dataset.** Light detection and ranging technology is used to create detailed 3D models of Denia's landscape, giving insights into topography and urban structures.
- **Tourism accommodation data from the open data portal of the Valencian Community.** The dataset lists hotels and accommodation, helping to map tourism hotspots.

Impact

Reusing open data significantly improves decision-making in the public sector, especially in tourism management and infrastructure planning. By utilising a digital twin, Denia can monitor tourist flow and analyse traffic and spending patterns, leading to better management of tourism resources, transport, healthcare and waste management. Ultimately, informed resource allocation and promotion of key areas can stimulate economic growth, attract new businesses and enhance services for both residents and visitors, fostering a more sustainable and vibrant community.

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: Countries' 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	14 Member States (52 %) report having such data available. **Belgium**, **Finland**, **Spain** and **Slovenia** are the latest additions.	19 Member States (70 %) gave an example of a reuse case on this topic.	22 Member States (81 %) gave an example of a reuse case on this topic.	23 Member States (85 %) gave an example of a reuse case on this topic.	21 Member States (78 %) gave an example of a reuse case on this topic.
EFTA	**Norway** reports having such data available.	**Norway** gave an example of a reuse case on this topic.	**Norway** and **Switzerland** gave an example of a reuse case on this topic.	**Norway** and **Switzerland** gave an example of a reuse case on this topic.	**Iceland** and **Switzerland** gave an example of a reuse case on this topic, with Iceland being the latest addition.
Candidate	**Serbia** and **Ukraine** report having such data available. **Serbia** is the latest addition.	**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.	**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.

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

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

Reuse case example from Denmark – the Integration Barometer

Subdomain

Marginalised groups and inequality.

Functioning and purpose

The Integration Barometer is an online tool developed by the Danish Ministry of Immigration and Integration to track the progress of foreigners' integration into Danish society. It monitors key metrics related to social, economic and cultural integration. The platform collects and presents data across nine core indicators at both the national and municipal levels, providing a comprehensive view of how well integration policies are working in various regions of Denmark.

The barometer serves as a transparent, data-driven resource for policymakers, researchers and the public, enabling them to understand how immigrants are integrating into Danish society and where additional efforts may be needed. The main objectives of the *Integration Barometer* are to:

- monitor and track the success of integration initiatives across Denmark;
- provide a clear and actionable overview of the integration process for foreigners in areas such as employment, education, social engagement and health;
- enable policymakers to identify areas where integration efforts are succeeding and where progress is lacking, helping to shape targeted policies and interventions;
- promote transparency and accountability by making integration data publicly available to all stakeholders.

Target group

The target groups for the integration barometer include policymakers and government agencies responsible for immigration and integration policies at both the national and municipal levels. Municipal authorities can monitor integration trends in their areas and adjust policies as needed. Citizens and immigrant communities benefit from access to this data, which helps them to gain an understanding of progress on integration in communities across Denmark.

Datasets

The Integration Barometer compiles data from multiple national and municipal sources to monitor nine key indicators of immigrant integration in Denmark. These indicators include the employment rate, comparing the job status of immigrants with that of the native population; education levels, focusing on enrolment and attainment in primary, secondary and higher education; and language proficiency, which measures immigrants' ability to learn and use Danish. Additionally, the barometer tracks housing conditions, health outcomes, access to healthcare services, and political and civic participation in local and national processes. It also monitors crime rates within immigrant communities, assesses social inclusion to determine how accepted immigrants feel in Danish society and evaluates experiences of discrimination across various aspects of life.

Impact

The Integration Barometer has a significant impact on immigrant integration in Denmark by promoting data-driven policy decisions. It enables decision-makers to identify both successful areas and those needing improvement, fostering the development of targeted integration policies Additionally, the barometer enhances public understanding of the complexities of integration and the progress made, contributing to more informed public debates. Ultimately, the insights provided support organisations and initiatives that seek to assist immigrant communities and promote more inclusive and effective integration efforts.

Reuse case example from Lithuania – the Patient Waiting Time Dashboard

Subdomain

Health and well-being.

Functioning and purpose

The Patient Waiting Time Dashboard is an online tool developed by the Lithuanian Ministry of Health in collaboration with the State Patient Fund and the State Data Agency (

Figure 4). This dashboard uses real-time data from the advance patient registration information system to monitor and display waiting times for medical appointments across the country. It provides an easy-to-use interface enabling health administrators, policymakers and the public to track queue dynamics, identify bottlenecks in the healthcare system and assess the effectiveness of any measures aimed at reducing patient waiting times. The tool is part of an effort to improve transparency and efficiency in Lithuania's healthcare system by making relevant data readily accessible to all stakeholders. The Patient Waiting Time Dashboard was created with the aims of:

- monitoring patient waiting times for doctor appointments in real-time across healthcare facilities in Lithuania;
- identifying problematic areas where waiting times are disproportionately long, thus helping the health authorities to target resources more effectively;
- providing insights into how implemented measures (e.g. policy changes, staffing adjustments) are affecting the efficiency of the healthcare system;
- improving the overall quality of healthcare services by enabling data-driven decision-making and planning;
- increasing transparency and enabling patients and the general public to stay informed about the state of healthcare accessibility.

Figure 4: The home page of the Patient Waiting Time Dashboard

Target group

The Patient Waiting Time Dashboard is a valuable tool for various stakeholders in the healthcare system. It helps policymakers and government authorities to manage healthcare services and implement policies to reduce waiting times. Healthcare providers and administrators can monitor and enhance patient scheduling and appointment systems. Patients benefit from accessing real-time information on waiting times at different facilities, which enables them to make informed healthcare choices. Researchers can use the data for studies on healthcare efficiency and resource allocation.

Datasets

The Patient Waiting Time Dashboard integrates multiple datasets to provide comprehensive insights into patient waiting times. The datasets used are accessible via Lithuania's open data platform: Dataset on waiting times, Healthcare facility data, and Policy effectiveness tracking.

Impact

The Patient Waiting Time Dashboard enhances healthcare accessibility by identifying long waiting times and bottlenecks, enabling the Ministry of Health to take targeted actions to improve situations. It facilitates data-driven policymaking, helping the health authorities to make timely and informed decisions on resource allocation and staffing. The dashboard increases transparency and public trust by providing patients with accurate, up-to-date waiting time information, empowering better healthcare choices. It also promotes accountability, enabling hospitals and providers to be held accountable for their efficiency while tracking improvements. Overall, it improves planning and resource allocation by offering a clear picture of patient flow and facility usage, guiding investment to where it is most needed.

Reuse case example from Ukraine – an online resource on wartime higher education

Subdomain

Education and skills.

Functioning and purpose

Higher Education in Wartime is an online platform developed using open data from the Unified State Electronic Database on Education (Figure 5). This tool was designed to analyse and report on the state of higher education institutions in Ukraine during wartime. It leverages open data to provide a detailed overview of how universities and other educational establishments have been impacted by the ongoing conflict, offering insights into disruptions, relocations and adjustments made to continue providing education during this challenging time. The resource is primarily aimed at journalists, researchers and educators interested in using open data to produce fact-based reports on education in Ukraine. The primary objectives of this project are to:

- provide transparent, data-driven reports on how the war in Ukraine has affected the country's higher education system;
- highlight the challenges faced and adaptations made by universities during wartime, including relocations, changes in student enrolment and changes in access to educational resources;
- offer a reliable source of information for journalists and researchers covering education and its intersection with conflict and crisis;
- support public awareness and policy discussions on the future of higher education in Ukraine during and after the conflict.

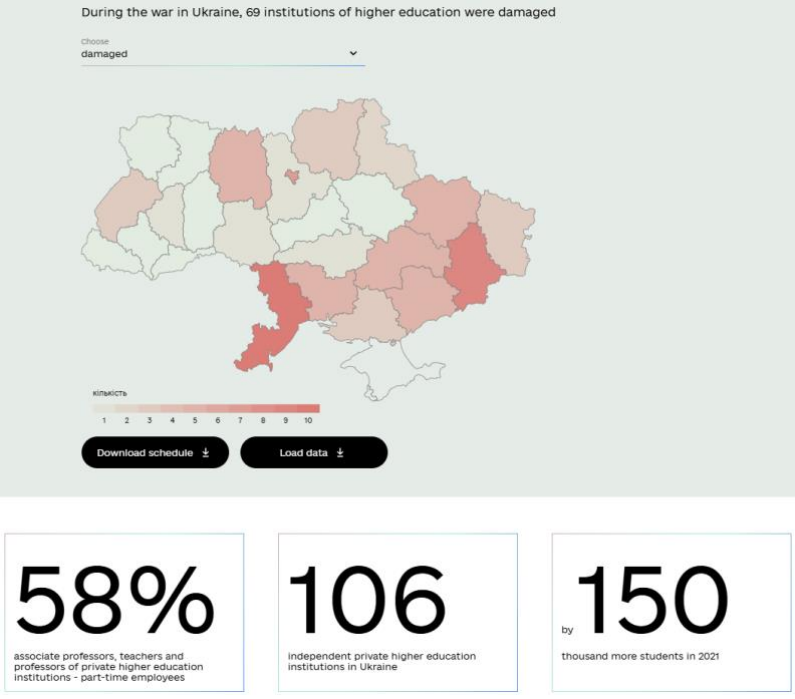


Figure 5: Some of the interactive features of the platform Higher Education in Wartime

Target group

The platform serves multiple stakeholders in the education sector: journalists, researchers and academics, education policymakers and students.

Datasets

The platform draws on the Unified State Electronic Database on Education, which includes data on institutions forced to relocate due to conflict, student enrolment figures reflecting wartime changes and institutional adaptation insights detailing how universities manage operations and support displaced students. These datasets are publicly available through Ukraine's open data initiative, providing a comprehensive view of the higher education landscape during the war.

Impact

The platform enables fact-based reporting on higher education in wartime, enhancing public understanding of the crisis. It supports policy decisions by providing insights critical for designing interventions to assist universities and students. Additionally, it raises public awareness of the challenges faced by educational institutions in Ukraine, informing both the Ukrainian public and international communities. Finally, the resource promotes educational continuity by showcasing successful strategies for maintaining education during disruption, offering valuable lessons for future crises.

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: Countries' responses to questions on environmental impact

	*Is there **data on the impact** created by open data on environmental challenges?*	*Is there a reuse case example related to **biodiversity**?*	*Is there a reuse case example related to **environmentally friendly cities**?*	*Is there a reuse case example related to **climate change and connected disasters**?*	*Is there a reuse case example related to **energy consumption and the switch to renewables**?*
EU-27	15 Member States (56 %) report having such data available. **Denmark**, **Ireland**, **Latvia** **Portugal** and **Slovenia** report this for the first time.	24 Member States (89 %) gave an example of a reuse case on this topic.	24 Member States (89 %) gave an example of a reuse case on this topic.	23 (85 %) gave an example of a reuse case on this topic, with **Hungary** and **Latvia** being the latest additions.	24 Member States (89 %) gave an example of a reuse case on this topic. This is an increase of four countries, **Belgium**, **Croatia**, **Finland** and **Latvia**, from 2023.
EFTA	**Norway** reports having such data.	All three participating EFTA countries gave an example of a reuse case on this topic.	All three participating EFTA countries gave an example of a reuse case on this topic.	All three participating EFTA countries gave an example of a reuse case on this topic.	All three participating EFTA countries gave an example of a reuse case on this topic.
Candidate	**Ukraine** reports having such data.	**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.	**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.

(Questions I22, I23, I24, I25 and I26)

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

Reuse case example from Serbia – climate monitoring and grading system

Subdomain

Climate change and connected disasters.

Functioning and purpose

The climate monitoring and grading system is an initiative aimed at tracking progress in the fight against climate change while presenting information on the effects of climate change in the form of related disasters, such as rising sea levels and global warming. This project provides an overview of climate-related data and assessments, utilising open data from **Norway** and other countries. It incorporates a grading system that encourages the achievement of green results, which in turn influences policy decisions regarding climate change mitigation and adaptation. The main objectives of this initiative include the following.

- **Tracking climate progress.** Monitoring and reporting on advancements in climate action and their effectiveness in mitigating climate change.
- **Disaster impact assessment.** Evaluating and communicating the consequences of climate change, particularly related to environmental disasters like rising sea levels.
- **Policy guidance.** Using the grading system as a benchmark for setting goals and shaping policies aimed at achieving sustainable and environmentally friendly outcomes.

Target group

The initiative targets several key stakeholders: policymakers and government officials, researchers and academics, environmental organisations and non-governmental organisations, and the general public, who can use the data to enhance their understanding of climate change issues and engage with the measures being taken to address them.

Datasets used

The project utilises a variety of open datasets, including Norwegian climate data related to climate indicators, emissions and environmental assessments; international climate data from other countries, providing comparative insights into global climate efforts; and sea level and global warming data that tracks changes in sea levels and temperature patterns, illustrating the direct impacts of climate change.

Impact

The initiative promotes informed policy decisions by providing clear data and grading results that help policymakers align their strategies with climate goals. It increases accountability, thus motivating governments and other organisations to achieve green results and adopt sustainable practices. By making climate data accessible, it fosters public awareness about the significance of climate action and the effects of climate change, resulting in a more informed citizenry. Finally, the initiative encourages collaboration and data sharing among countries and organisations, facilitating a unified approach to tackling global climate challenges.

Reuse case example from Sweden – Klimatkollen (Climate Check-Up)

Subdomain

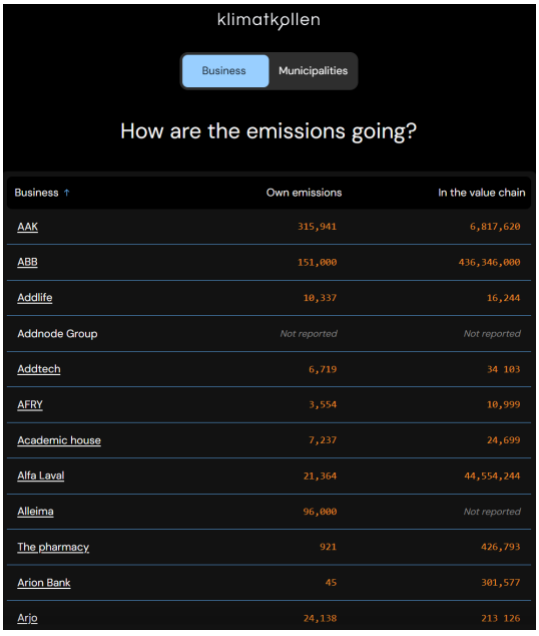
Energy consumption and the switch to renewables.

Functioning and purpose

Klimatkollen (Climate Check-Up) is a web service that provides citizens with access to information about carbon emissions in Swedish municipalities, specifically in relation to the carbon dioxide budget established by the Paris Agreement. The platform aims to raise awareness about climate change and promote community engagement in sustainability efforts. By making public data accessible, it empowers individuals and local governments to understand and address their carbon footprints. The primary objectives of the Klimatkollen initiative are as follows.

- **Raising awareness.** To educate citizens about the levels of carbon emissions in their municipalities and the importance of reducing these emissions to meet climate goals.
- **Promoting transparency.** To provide accessible information on carbon emissions and sustainability efforts, fostering accountability among local governments.
- **Encouraging action.** To motivate individuals and communities to take action to reduce their carbon footprints and support climate-friendly policies.

As exemplified in Figure 6, the platform analyses the emissions of both businesses and municipalities. In the former case, the data was used to conduct an analysis of 150 major Swedish companies' climate reporting. In the latter case, the platform displays an interactive map of the entire country, showing the changes in several climate indicators since the Paris Agreement. The indicators include, for example, carbon dioxide emissions and budgets to electric car and bike usage. The data can be consulted and downloaded freely.



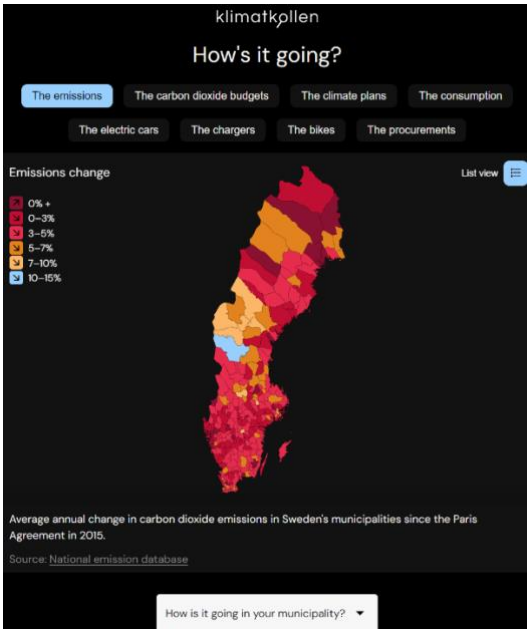


Figure 6: Overview of businesses' carbon emissions and their distribution within Sweden

Target group

Klimatkollen serves several key stakeholders: citizens interested in understanding their municipality's carbon emissions; local governments, which can assess their performance; researchers and activists; and educational institutions.

Datasets used

Klimatkollen relies on various public datasets to provide accurate information on carbon emissions. Users can find specific details about these datasets by visiting the data sources and methods section of the website and selecting 'Om våra källor' ('About our sources').

Impact

Klimatkollen promotes an informed citizenry by providing clear, accessible information about carbon emissions, empowering individuals to understand their impact on the climate. It increases local-level accountability by encouraging municipalities to be transparent about their emissions and engage in climate action. The platform supports data-driven decision-making for policymakers, aligning local actions with national and international climate goals. Additionally, by raising awareness of climate issues, it fosters community engagement and encourages collective action towards sustainability.

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: Countries' 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	16 Member States (59 %) report having such data available. This is an increase of two countries from 2023.	21 Member States (78 %) gave an example of a reuse case on this topic. This is an increase of four countries from 2023.	21 Member States (78 %) 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 from 2023.	17 Member States (63 %) gave an example of a reuse case on this topic.
EFTA	**Norway** reports having such data available.	None of the participating EFTA countries gave an example of a reuse case on this topic.	**Iceland** and **Switzerland** gave an example of a reuse case on this topic.	All three participating EFTA countries gave an example of a reuse case on this topic, with **Iceland** as the latest addition.	None of the participating EFTA countries gave an example of a reuse case on this topic.
Candidate	**Ukraine** reports having such data available.	**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.	**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.

(Questions I27, I28, I29, I30 and I31)

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

Reuse case example from France – La Bonne Alternance and Emplois de l'inclusion

Subdomain

Employment.

Functioning and purpose

This initiative encompasses two interconnected services aimed at fostering job creation and improving access to employment opportunities: La bonne alternance and Emplois de l'inclusion. Both services leverage open data and digital tools to connect jobseekers with training centres and employers, focusing particularly on supporting young people and vulnerable individuals in finding meaningful work.

La bonne alternance is a digital public service designed to connect young people, apprenticeship training centres (CFAs) and companies (Figure 7). The platform provides a range of features to facilitate the apprenticeship process and improve job access for youth, including:

- a feature enabling small and medium-sized enterprises (SMEs) and CFAs to post job offers;
- a service that connects young people with CFAs;
- a feature enabling jobseekers to submit applications directly through the platform;
- modules to support communication with CFAs and provide assistance in finding host companies.

Achievements since the beginning of 2024 include the following:

- 12 171 job offers have been posted;
- 538 745 applications have been submitted;
- 48 942 contacts with CFAs have been established.

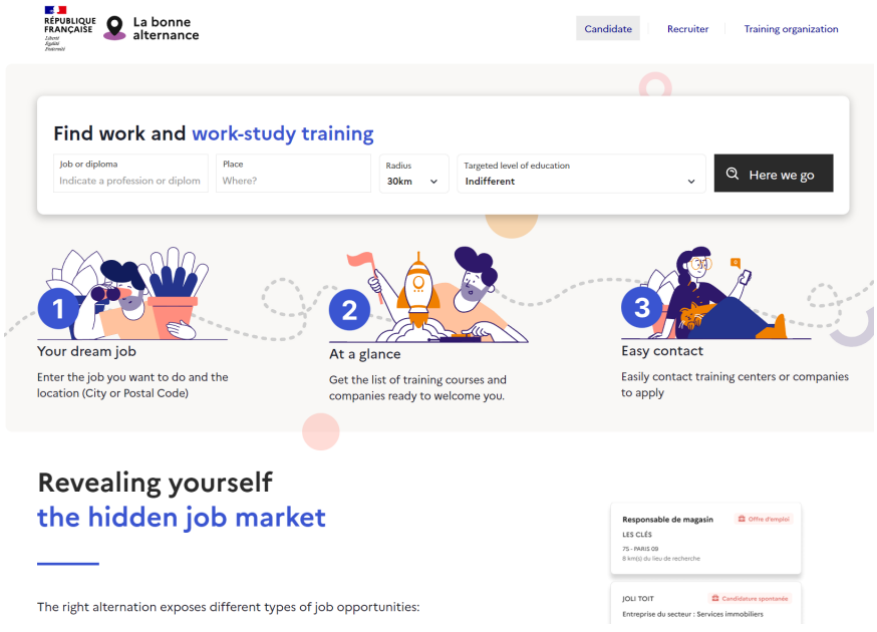


Figure 7: The home page of the website La bonne alternance

Emplois de l'inclusion, is another service that utilises open employment data to connect jobseekers with social enterprises. This initiative is aimed at helping vulnerable individuals access employment and training opportunities, facilitating their social integration through work. Key accomplishments include the following:

- 1 150 687 candidates have been hired through the service;

- 5 386 social enterprises have participated in recruitment.

The overarching goals of these services are set out below.

- **Job creation.** To facilitate job placements and enhance employment opportunities for young people and vulnerable populations.
- **Improving accessibility.** To streamline the connection between jobseekers and employers, particularly for those experiencing barriers to employment.
- **Support for vulnerable individuals.** To provide targeted assistance and resources for people from disadvantaged backgrounds to aid their integration into the workforce.

Target group

The platforms cater to young jobseekers looking for apprenticeships and placements, SMEs seeking to recruit young talent, social enterprises seeking to hire vulnerable people and the CFAs, which support the professional development of young people.

Datasets used

The services utilise datasets including **apprenticeship training offers**, **job offers** from SMEs and social enterprises, and **employment data** on candidates and hiring statistics. For more detailed insights, refer to the report *Measuring the Impact of Open Data: Analyzing governmental, environmental, social and economic impacts dimensions in France*.

Impact

The platforms enhance employment opportunities for young people and vulnerable individuals, aiding their integration into the workforce. They promote inclusivity by focusing on social enterprises and marginalised groups, and data-driven insights ensure continuous improvement. Additionally, the platforms foster community engagement by connecting employers, training centres and jobseekers, creating a supportive employment ecosystem.

Reuse case example from Slovenia – Sentinel Hub

Subdomain

Entrepreneurship and business creation.

Functioning and purpose

Sentinel Hub is an advanced geospatial data-processing engine that facilitates access to, visualisation of and analysis of vast amounts of satellite imagery and Earth observation data (Figure 8). Sentinel Hub enables users to leverage open satellite data, including imagery from the Sentinel and Landsat missions. It is designed to support application developers and researchers, with a user-friendly interface for browsing and processing satellite data at scale. The primary objectives of Sentinel Hub include the following.

- **Data accessibility.** To provide easy access to satellite imagery and Earth observation data for a wide range of applications, from agriculture to urban planning.
- **Supporting innovation.** To empower developers and researchers to build innovative applications using satellite data and machine learning.
- **Enhancing decision-making.** To assist stakeholders in various sectors in making informed decisions based on accurate and timely satellite imagery.

Figure 8: The functionalities of Sentinel Hub

Target group

Sentinel Hub serves developers and researchers, policymakers and businesses in sectors such as agriculture; these target groups use satellite data for applications such as environmental monitoring and urban planning.

Datasets used

Sentinel Hub leverages key datasets including Sentinel data from the Copernicus programme, Landsat imagery for historical land-use analysis and open Earth observation data, which ensures broad accessibility and fosters innovation (Figure 9).

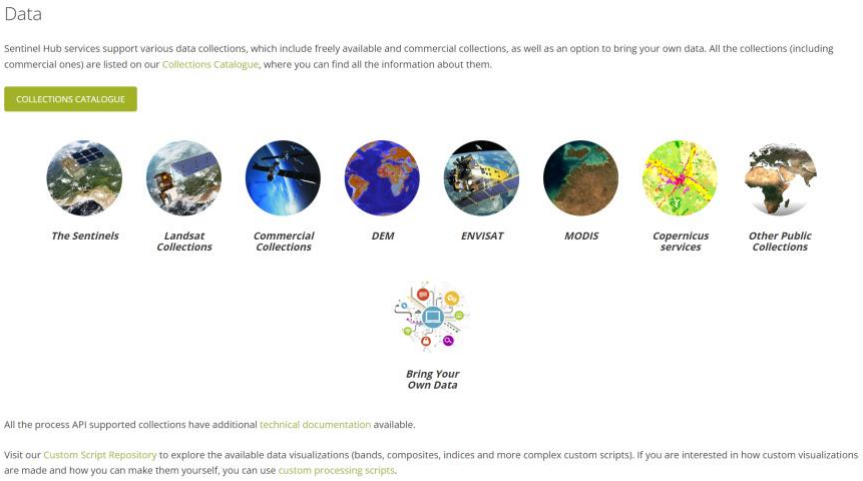


Figure 9: Overview of the data sources used by Sentinel Hub

Impact

Sentinel Hub revolutionises Earth observation by transforming access to satellite data, enabling faster and more efficient space applications. It accelerates innovation across sectors by making satellite imagery easily accessible, supports real-time data processing for timely decision-making, and offers global scalability, enabling users to process and visualise data on a global scale.

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