

eGovernment Benchmark 2024 insight report

Advancing Pillars in Digital Public Service Delivery

INSIGHT REPORT

Written by Capgemini, Sogeti, IDC and Politecnico di Milano for the European Commission Directorate-General for Communications Networks, Content and Technology April – 2024

Capgemini 🤣





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Executive Summary



The eGovernment Benchmark: Monitoring Europe's digitalisation of public services

The eGovernment Benchmark monitors the digitalisation of public services in Europe. The digital transformation of our societies and our public services in particular is driven by government policies enabling digital technologies to flourish. As we approach the 2030 milestone set by the European Commission's Digital Decade policy programme, it becomes increasingly crucial for European nations to prioritise the development of resilient and sovereign digital infrastructures capable of upholding European values, while navigating the challenges of our era. This edition of the eGovernment Benchmark not only assesses the digital transformation of governments in 2022 and 2023 but also reflects on broader trends observed over the past four years. As we near the end of the current methodology cycle, it provides valuable insights and best practices for all those interested in eGovernment.

Analysing digital governments through the eyes of citizens and entrepreneurs

- The 2022/2023 eGovernment Benchmark sheds light on eGovernment in the 27 European Union Member States (EU27), as well as in Iceland 1, Norway 1, Switzerland , Albania , Montenegro , North Macedonia , Serbia , Türkiye , Moldova , and Ukraine .
- Across the EU27, Mystery Shoppers assessed 10,705 websites during October and November 2023, and in November and December 2022, across nine life events, related to key government domains. This equates to an average of 396 websites per EU27 member state. Moreover, these assessments occur biennially, with one set of life events examined every even year and another set during odd years.
 - Across the other countries, Mystery shoppers assessed 4027 websites, which equates to a little under 403 websites per country.
- This study evaluates online public services on four dimensions, which consist of 14 underlying indicators, broken down into 48 survey questions. The four dimensions can be described by the following key questions:



The User Centricity key dimension, through its online availability indicator, provides data that feeds into Digital Decade Key Public Indicators (KPIs) (Digital public services for citizens & Digital Public services for businesses).¹

Based on the four dimensions and 48 underlying survey questions, countries receive an overall eGovernment performance score. The composite score, ranging from 0 to 100 points, reflects the spectrum of eGovernment performance. Higher scores suggest stronger performance, while lower scores suggest areas for improvement.



^{1.} Please refer to https://ec.europa.eu/newsroom/dae/redirection/document/96937 for more information on these KPIs and https://digital-strategy.ec.europa.eu/en/ library/desi-methodological-note-digital-decade-report-2023 for the 2023 DESI methodological note.

European digital governments at a glance

The European leaders are Malta 🚺 (97 points) and Estonia 🗮 (92 points), maintaining their leadership positions, closely followed by Luxembourg 🥽 (90 points) and Iceland 🗮 (90 points). Other frontrunners within the European Union are Finland 🕂 (88 points), Lithuania 🜉 (86 points), Denmark 🗮 (85 points), Netherlands 🍣 (85 points), Latvia 🚝 (85 points), Sweden 🚝 (82 points), Austria 🧮 (82 points) and Portugal 🔯 (81 points). The EU27 overall performance averages at 76 points.

The best leaders in the other European countries are Türkiye 🖸 (83 points) and Norway 🎏 (82 points).



Figure 1: Country overall performance, biennial average 2022/2023

Compared to the previous year, significant growth was observed in several countries. Greece 😂 continued its upward trend, experiencing an 8-point increase for the second consecutive year. Additionally within the European Union, Bulgaria 🚘 (+7 points), Cyprus 💌 (+7 points), Poland 🚘 (+7 points), Slovenia 🚔 (+6 points) and Sweden 🚝 (+5 points) demonstrated noteworthy advancements.

Across the other European countries, Serbia 🔎 (+5 points) demonstrated large advancements in comparison to previous year.

The dimension of *User Centricity* continues to shine as a top performer, boasting an EU27 average score of 93 points and indicating a high performance level across most European countries. The *Cross-Border Services* dimension (65 points) highlights the greatest scope for enhancement, especially in addressing deficiencies in cross-border eID capabilities. With an average of 78 points, the *Key Enablers* dimension shows promising performance, with more countries enabling safe authentication and pre-filling personal information capabilities. Lastly, the *Transparency* of eGovernment (currently at 67 points) can be improved, needing consistent service processes that are clear for both citizens and entrepreneurs. **Evolution across the four key dimensions over the past four years:** The eGovernment Benchmark updates its methodology (i.e., the breadth and scope of digital public service provision that it measures to provide performance scores) every four years to maintain robustness and relevance. As we enter the concluding year of this four-year cycle, it is an ideal opportunity to reflect on the progress made throughout this period. Namely we notice:

- The overall digital performance of governments across the EU27 has shown clear progression, with a noteworthy 5-point increase between the years 2020/2021 and 2022/2023.
- The *User Centricity* score has consistently produced a high score (90+ points), while attaining a further 3-point increase over the past four years.
- The *Transparency* dimension has steadily increased in this cycle, experiencing the highest jump between 2020/2021 and 2022/2023, with a total increase of 4 points over the past four years.
- The *Key Enablers* dimension experienced the second most significant increase, with a 6-point difference between its 2020/2021 score and its most recent 2022/2023 score.
- The *Cross-Border* Services dimension is the most improved dimension in the EU27, with a 7-point increase in its biennial average over four years.

Reinforcing resilience of public administrations and digital sovereignty: The Digital Decade policy

programme has ushered in a transformative era of digital advancement and strategic policymaking. Resilience and sovereignty are overarching principles that underpin some of the most pertinent policy trends in the field of eGovernment within European Union member states. This year's eGovernment Benchmark analysis spotlights topics such as:

Interoperability: The EU is paving the way for a Single Digital Gateway, setting a framework for administrative simplification and modernisation across the EU27 public administrations. The Single Digital Gateway has mandated the implementation of the Once-Only Technical System that will facilitate the cross-border delivery of public services by enabling the EU public administrations interoperable-by-design. The Interoperable Europe Act is an example of the EU's push for interoperability. This legislation represents a crucial step towards the provision of key and accessible European public services online. To accomplish this objective, the Act establishes a new framework for shared interoperability solutions within the EU's public sector, empowering administrations at all levels to offer cross-border digital public services. The eGovernment Benchmark gives insight into interoperability through its *eID*, *Cross-Border eID*, and *Pre-Filled Forms indicators*.

- Large gaps remain between the percentage of national (76%) and cross-border (37%) services that provide eID capabilities. However, both these indicators saw consistent improvement over the past four years.
- While central governments excel in promoting interoperable public service enablers, local and regional entities show room for improvement, particularly in eID and pre-filling capabilities.
- The *Cross-Border User Support* indicator's average score of nearly 80 points, suggests that EU27 cross-border portals have user-feedback capabilities allowing them to comply with the Single Digital Gateway Regulation's rules for the collection and sharing of user feedback on cross-border portal websites.

Data sovereignty: Data sovereignty for citizens implies that they have control over their personal information and privacy. In the public domain this involves further transparency provided by governments around what kind of data they have about citizens and how they handle such data. The eGovernment Benchmark's *Transparency of Personal Data* indicator reveals that in nearly 9 out of 10 portals in the EU27, citizens have a high level of access in terms of accessing and managing their personal data while reporting inaccuracies. However, in less than 60% of portals, users are allowed to monitor who has accessed their data and for what purpose.

Cybersecurity: Safeguarding against cybersecurity threats is a major EU policy priority that is integral for maintaining resilient digital supply chains and infrastructure. The eGovernment Benchmark's pilot *Cybersecurity* indicator reveals that much improvement is needed across all EU countries in their cybersecurity capabilities with less than 1% reaching the pass (as opposed to fail) threshold for all 13 security criteria tests, as specified by the testing tool providers. Further, 50% of all the security criteria received a pass score. Nevertheless, top cybersecurity performers stand out because they have active policies in place to increase awareness and provide instruments and tools to improve resilience and security.

Artificial intelligence (AI): The growing prominence of AI-induced activities and operations in the EU has various regulatory implications. On the topic of sovereignty in particular, AI models must be created with design choices that reflect EU values. As a new indicator, the 2022/2023 eGovernment Benchmark data collection landscaped *AI Chatbot* capabilities provided on portal websites across the EU27. Across the five life events measured (Regular Business Operations, Starting a Small Claims Procedure, Moving, Transport, Health), 29% of portals offer a live support function that includes AI capability, with the Regular Business Operations portals having the highest percentage of AI capability.

Reducing disparities among public digital service

delivery: To achieve the EU's digital transformation objectives, addressing performance disparities across countries, user groups and government tiers is crucial for fostering inclusive and efficient digital service delivery. This report highlights gaps in performance across various dimensions and addresses how they have evolved over the past four-year period. This provides the following insights:

• The average overall score of the 10 top-performers within the EU27 is 87 points, compared to 64 points for the 10 bottom-performers. This 23-point difference has decreased substantially (by 5 points) over the past four years.

- The average overall score for services for entrepreneurs sits at 83 points, compared to 74 points for citizenrelated services. These citizen-related services have slowly caught-up with the business-related services, closing the gap by 3 points over the past four years.
- The online availability for national users sits at 91% for central government services, 82% for regional government services, and 71% for local government services.
- Availability of services for national users sits at 88%, compared to the 56% availability for cross-border users. Over the past four-year period, this gap has decreased slightly.

The trend evident in these different gaps is that the lower performing services and countries have been slowly catching up with the frontrunners. This is a desirable trend in the light of a sovereign and resilient digital EU because it builds towards a widespread digital performance across the continent.



Glossary of Key Terminology

eGovernment: electronic government (also digital government).

Dimensions: the four pillars against which indicators for eGovernment are aggregated and measured.

- **1. User Centricity:** the extent to which information and services are available online, supported online, and compatible with mobile devices.
- **2. Transparency:** the extent to which service processes are transparent, services are designed with user involvement, and users can manage their personal data.
- **3. Key Enablers:** the extent to which digital, tools such as electronic identification (eID), eDocuments, Pre-filled Forms and Digital Post solutions, enable identification and communication between a user and a government service.
- **4. Cross-Border Services:** the extent to which citizens and entrepreneurs from other European countries can access online information and services in a usable and integrated way through electronic identification and eDocuments.

Life event: a package of government services, usually provided by multiple agencies, that support citizens or entrepreneurs through key points of their lives, such as the birth of a child or starting a business. The eGovernment Benchmark covers nine life events (government domains) and these are measured on a biennial basis with one set assessed in even year dates and another set assessed in odd years:

- Assessed in 2023: Regular Business Operations, Health, Moving, Transport, Starting a Small Claims Procedure.
- Assessed in 2022: Business Start-Up, Career, Studying and Family.

Life event services: services within a user journey for national and cross-border users.

- Informational services: services and procedures that provide users with adequate and personalised insight into their situation.
- **Transactional services:** services and procedures needed to fulfil the essential requirements of a life event, such as registration.
- Portal websites: eGovernment websites that gather and provide information and services from multiple public administrations, also known as one-stop-shops.
- National users: citizens and entrepreneurs that seek information and services in their own country.
- **Cross-border users:** citizens or entrepreneurs that seek information and services in a European country other than their own.

Method: the way in which we collected the data.

- **Mystery Shopping:** the primary type of data collection in the eGovernment Benchmark a proven evaluation method that makes the user journey and experience the primary focus of attention.
- Automated tools: online tests through which websites are entered and assessed on a number of criteria.

Introducing the eGovernment Benchmark

The eGovernment Benchmark is key to **tracking** *D* **continued improvements** in online public services.

European Commission, Directorate-General for Communications Networks, Content and Technology



Introducing the eGovernment Benchmark

eGovernments reflecting European values

Monitoring developments in electronic public service provision, the eGovernment Benchmark is a prominent tool for policy makers, experts and practitioners both in the EU and further afield in Europe. This report encapsulates the data captured throughout 2022 and 2023, a time in which EU countries have been determined to cultivate a resilient and sovereign digital landscape imbued with EU values. The EU's vision for the Digital Decade is characterised by a digital world founded on EU values, ensuring rights and principles outlined in the European Declaration on Digital Rights and Principles. Moreover, these principles have been guiding the digitisation of key public services and administrative procedures across the EU, creating convenience for citizens and businesses and fostering connectivity to broader networks for most remote areas. As we conclude a four-year research cycle with a consistent methodology, this report not only presents the latest findings but also tracks the evolution of digital public services over this period.

The eGovernment Benchmark: Europe's comparative study into digital governments

The eGovernment Benchmark compares how governments deliver digital public services across Europe. It has become an internationally recognised study that looks at how platforms for citizens, businesses, tourists and expat communities continue to improve. The eGovernment Benchmark Methodology in a Nutshell

To present an in-depth view on eGovernment performance, the analysis covers **95 services across nine life events** – sequences of digital services that the average citizen and business are likely to require.

Services related to *Business Start-Up, Career, Family and Studying* were analysed in November and December 2022. Services around *Regular Business Operations, Health, Moving, Starting a Small Claims Procedure (Justice) and Transport* were assessed in October and November 2023. This report presents biennial findings, for **2023 and 2022**, which is the average of all nine life events.

Well-trained **Mystery Shoppers** – citizens from the participating countries – evaluated the life events by visiting and assessing government websites using a standardised survey.

Across the EU27, Mystery Shoppers assessed **10,705 websites**: 6397 websites and 663 portals from their own governments, as well as 3005 cross-border websites and 640 portals from other European countries. Across the other countries, Mystery shoppers assessed 4027 websites, which equates to a little under 403 websites per country. Additional automated open tools shed light on *Mobile Friendliness, Findability, Accessibility Foundations and Cybersecurity.*

The study covers **2,344 public administrations**: 1,053 central, 304 regional and 987 local government bodies

Participating countries

35 countries participated in the data collection of 2022 and 37 countries participated in 2023. Throughout this report, the countries will be referred to as 'Europe' or the 'EU27+'. The 27 member states of the EU will be referred to as the 'European Union' or the 'EU27'. The participating countries are:

- The 27 European Union Member States.
- The European Free Trade Association countries: Iceland
 Image: Norway
 Image: Norway
- The European Union candidate countries: Albania ■, Moldova ➡, Montenegro ➡, North Macedonia ➡, Serbia ➡, Türkiye ➡ and Ukraine² ➡.

While the Background Report provides insights on all surveyed countries (i.e., the EU member states as well as non-EU countries), the insight report mainly spotlights EU27 averages. This is because the Insight Report is oriented towards the KPI implementing decision of the Digital Decade (which entered into force early January 2023) and DESI, which are only relevant to the EU27. Below we outline the indicators measured by the Benchmark that correspond to relevant Digital Decade and DESI indicators.



Digital Decade targets and the Digital Economy and Society Index

Two eGovernment components are covered in the Digital Decade targets for 2023 and four are covered in the DESI (Digital Economy and Society Index)

The results of the eGovernment Benchmark also help score the countries on the European Commission's <u>DESI</u> indicators and the <u>Digital Decade targets for 2030</u>.

Two indicators measured by the eGovernment Benchmark that feed into Digital Decade targets are:

- **Digital Decade indicator digital public services for citizens:** Stands at 79 for the EU27 Member States, based on the biennial average from the eGovernment Benchmark indicator *Online Availability and Cross-Border Online Availability* for all citizen-related life events. The Digital Decade indicator measures to what extent services or information concerning services for citizens are provided online and via a government portal.
- **Digital Decade indicator digital public services for businesses:** Stands at 85 for the EU27 Member States, based on the biennial average from the eGovernment Benchmark indicators of *Online Availability and Cross-Border Online Availability* for all business-related life events. The Digital Decade indicator measures to what extent services or information concerning services for businesses are provided online and via a government portal.

Four indicators present in the DESI 2023 Dashboard are measured by the eGovernment Benchmark:

- Pre-Filled Forms (DESI indicator 4a4): Stands at 71 for the EU27 Member States, based on the biennial average from the eGovernment Benchmark indicator Pre-Filled Forms, mentioned in the Key Enablers sections. The indicator measures to what extent online forms are pre-filled with personal information already known by the government.
- Transparency of Service Delivery, Design, and Personal Data (DESI indicator 4a5): Stands at 67 for the EU 27 Member States, based on the biennial average of the eGovernment Benchmark key dimension Transparency. This key dimension is the average of the indicators Transparency of Service Delivery, Transparency of Personal Data, and Transparency of Service Design.
- User Support (DESI indicator 4a6): Stands at 86 for the EU 27 Member States, based on the biennial averages of the User Support and Cross-Border User Support indicators of the eGovernment Benchmark. The indicator measures how much support is given on government portals when users have a question regarding a public service.
- **Mobile Friendliness (DESI indicator 4a7):** Stands at 95 for the EU 27 Member States, based on the biennial average score of the Mobile Friendliness indicator and measures how many of the government websites within a country run smoothly on mobile devices, meaning that they scale their resolution, and change dimensions to accommodate mobile users.

The eGovernment Benchmark study evaluates online public services on four dimensions, with 14 underlying indicators, comprising 48 questions in total.

Relevant policy priorities driving eGovernment services

The eGovernment Benchmark methodology is linked to European policy plans and actions, which aim to further the EU's vision for a better digital future. These include:

Digital Decade policy programme

Digital Decade is a European Union (EU) initiative designed to accelerate the digital transformation of Europe through to 2030. This comprehensive framework includes measurable goals oriented towards four focus areas (connectivity, digital skills, digital business, digital public services), each with their own targets. The Digital Decade policy programme allows the EU and its Member States to work together to reach the targets and objectives.

Two indicators measured by the eGovernment Benchmark that feed into Digital Decade targets are:

- 1. Online availability and cross-border online availability for all citizen-related life events.
- 2. Online availability and cross-border online availability for all business-related life events.

Interoperable Europe Act

The European Commission defines public sector interoperability as seamless cooperation across borders, sectors, and organisational boundaries to enhance citizen and business interaction with administrations. The Interoperable Europe Act aims to strengthen crossborder data flows and create a network of interconnected digital public administrations, potentially saving up to $\in 6.3$ million for citizens and $\in 19$ billion for businesses.³ It establishes a cooperation framework to facilitate secure cross-border data exchange and adoption of shared digital solutions, primarily open-source, to address administrative burdens. Through the indicators of *eID*, *Cross-Border eID and Pre-Filled Forms*, the eGovernment Benchmark measures provide insight on the state of interoperability across the EU27

Other relevant policy initiatives

- The Declaration on Digital Rights and Principles empowers Europeans to fully enjoy the opportunities that the Digital Decade brings, driven by common European values.
- The Single Digital Gateway regulation facilitates online access to information, administrative procedures, and assistance services that EU citizens and businesses may need in another EU country.
- The Web Accessibility Directive provides people with disabilities with better access to the websites and mobile apps of public services.
- The eIDAS regulation is a key enabler for secure cross-border transactions and ensures that people and businesses can use their own national electronic identification scheme (eIDs) to access public services available online in other EU countries.
- The Once Only Technical System (OOTS) enables the sharing of information between public administrations across borders between EU countries. It is crosssectorial and can be expanded beyond the current scope of life events set out in the Single Digital Gateway Regulation.



European Union's State of Play

We are making progress in the EU towards our digital targets and we must continue our efforts to make the EU a **global leader** in the technology race. "

Thierry Breton, Commissioner for the Internal Market



The state of play in the EU

Overall performance: Steady growth across all key dimensions

Where do EU digital governments stand? The overall eGovernment Benchmark score averages the *User Centricity, Transparency, Key Enablers and Cross-Border Services* dimensions. This composite score ranges from 0 to 100 points. As per the latest 2022/2023 data collection, the EU27's overall performance registers at 76 points. Figure 2 illustrates Malta 📔 (97 points) and Estonia 🛁 (92 points) maintaining their positions as leaders within the European Union, closely followed by Luxembourg 🚄 (90 points) and Iceland 🚝 (90 points). Other frontrunners are Finland 🕂 (88 points), Lithuania 🛁 (86 points), Denmark 賃 (85 points), Netherlands 🚄 (85 points), Latvia 🚝 (85 points), Sweden 🔛 (82 points), Austria 🚝 (82 points), and Portugal 🚰 (81 points).

In the other measured countries, Türkiye 🔄 (83 points) and Norway 🚟 (82 points) are in a leading position.



Figure 2: Country overall performance, biennial average 2022/2023

Compared to the previous year, significant growth was observed in several countries. Greece 😂 continued its upward trend, experiencing an 8-point increase for the second consecutive year. Additionally, Bulgaria 🛋 (+7 points), Cyprus 💽 (+7 points), Poland 🛁 (+7 points), Slovenia 🚘 (+6 points), and Sweden 🚝 (+5) demonstrated noteworthy advancements.

Across the other European countries, Serbia **1**(+5 points) demonstrated large advancements in comparison to previous year.

Four-year analysis

Digital governments operate within dynamic and intricate environments, where the nature and delivery of services are continually evolving. It is thus imperative that we, as landscapers of the digital public service environment, remain receptive to change and focus on the most pertinent eGovernment matters in the EU. For this reason, the eGovernment Benchmark updates its methodology and scope every four years, maintaining robustness in its methodology. These updates may introduce a break in the series, which slightly convolutes comparisons over longer periods. As this year marks the end of the four-year period and the method will be updated before the next measurements are taken, the opportunity arises to make an analysis of the past four years.

Figure 3 shows a clear progression over the past four years in the way in which governments provide services to their citizens online. This progression is highlighted by a noteworthy 5-point increase in the EU27 score for overall digital performance between the 2020/2021 study and the 2022/2023 study. This progression is logical considering the investment and priority provided to enhancing digital government services by European governments as a result of ambitious EU targets for digital transformation (i.e., the European Digital Decade policy programme).

Looking at the evolution of specific key dimensions, *User Centricity* has not only achieved a consistent score of 90 points and above but has also attained a total increase of 3 points over the past four years. The *Transparency* key dimension has been the steadiest over the past four years, making a total increase of 4 points over four years. In the past four years the *Key Enablers* dimension experienced the second most significant increase with a 6-point increase since the 2020/2021 study. And despite consistently being the lowest scoring key dimension each year in the past four-year cycle, *Cross-Border Services* is the most improved dimension in the EU, with a 7-point increase in the rolling two-year average between 2020 and 2023.



Figure 3: Progression of average overall score and key dimensions over the past four years

The most improved EU27 countries over the past four years are Greece \cong (+16 points), Poland \cong (+14 points), and Cyprus \checkmark (+10 points). Other measured countries, outside of the European Union that improved well in this period are Serbia \bowtie (+13 points), Türkiye \boxdot (+11 points).

Notably, Sweden 🚝 stands out as the only country among the top 10 highest-scoring nations (+82 points) in the 2022/2023 study that is also included in the top 10 most improved countries over the past four years (+8 points). Moreover, Sweden 🚰 demonstrated continuous augmentation of its digital services over the past four years, despite recording high scores in the beginning of the cycle.



Figure 4: Overall eGovernment performance of EU countries as the biennial averages of 2022/2023 in comparison with those from 2021/2022

Key dimensions

The overall eGovernment Benchmark scores are based on four key dimensions: *User Centricity, Transparency, Key Enablers and Cross-Border Services.*

User Centricity

Countries perform best on the User Centricity key dimension, scoring an average of 93 points across three indicators Online Availability (based on three survey questions), User Support (seven questions) and Mobile Friendliness (based on automated tooling). This collective performance underscores the commitment across the EU27 to ensure accessibility, ease of use, and robust support within government portals for citizens seeking online services and interactions with governmental entities. In fact, *Mobile Friendliness* stands at 95 points across Europe, meaning that most governments provide their services on mobile friendly websites. Malta 📜 maintains its position as leaders in providing usercentric services to their citizens in the EU27, scoring 99 points. Finland 는, Iceland 📇, Spain 💢, Norway 📇, and Denmark 🚼 all record 98 points.

In the other countries, Türkiye 🔯 (100 points) and Iceland 🚟 (98 points) show top positions for this key dimension.



Figure 5: EU27 average of User Centricity indicators between 2020/2021 and 2022/2023

Data collected in the past four years reveals that EU27 governments consistently excel in providing online and mobile friendly services, encompassing both service information and the services themselves. The overall rise in score of the *User Centricity* key dimension can be attributed to the 3-point increase in the *Online Availability* and *Mobile Friendliness* indicators. While the *User Support* indicator only showed a 2-point increase over the four years, it actually rose to a 94-point score in 2022/2023.

The *Health* life event stands out as the most improved in terms of User Centricity since the 2020 data collection, with a 6-point increase. Specifically, the User Support indicator saw a notable increase of 10 points over four years, the biggest rise in a *User Centricity* indicator across all life events. This advancement reflects noteworthy investments directed towards enhancing assistance functionalities on government portals related to health, underscoring their critical role in mitigating disparities in healthcare access. The least improved life event for the User Centricity dimension is Regular Business Operations with only a 1-point improvement over four years. Specifically, sub-indicators User Support (+0.5 p.p.) and Online Availability (+0.9 p.p.) saw the lowest increase, vet all achieved commendable scores (+90 points) across 2022/2023.

In addition, a non-scored indicator (*Web Accessibility Foundation*) measures a selection of eight items that give an impression of how accessible services are to users with specific disabilities. On average within the European Union, 65% of all websites fail to meet all eight of the selected criteria. This indicates that, in most EU27 countries, users with visual impairments experience accessibility barriers when accessing services.

In the EU27, Greece \cong (+10 points), Bulgaria \cong (+8 points), Cyprus \leq (+8 points), and Poland \cong (+6 points) demonstrated the greatest improvement in their User Centricity scores.

In the other countries, Serbia 🗺 (+12 points), Türkiye 🖾 (+7 points) did so.

Transparency

Transparency is the second lowest key dimension (after *Cross-Border Services*) with an average score of 67 points. This dimension covers the indicators of *Transparency* of Service Delivery (based on seven survey questions), *Transparency of Personal Data* (five questions) and Transparency of Service Design (four survey questions). EU governments are giving users more insights into how their personal data is being used and are increasingly involving citizens in service and policy design. However, transparency during service delivery, for instance via clear process descriptions and timelines, is not yet widely available. Malta 📑 is the leader across the EU27 for the Transparency key dimension with 98 points, followed by, Luxembourg 🧮 (90 points), Estonia 🗮 (87 points), and Netherlands 🧮 (82 points). Iceland 🔚 (94 points) and Türkiye 🖸 (82 points) are the top performers in this key dimension across the other countries.





The *Transparency* key dimension's steady 4-point increase is aided by the notable 5-point increase in the *Transparency of Service Design* sub-indicator, demonstrating that governments are increasingly facilitating opportunities for citizens to contribute to digital service design. Additionally, *Transparency of Service Delivery* experienced the second highest increase of 4 points over the four years, despite being the lowest scoring sub-indicator. The most improved *Transparency* indicators are in services grouped under the Transport life event, with a 7-point increase over four years. Specifically, the *Transparency* of Service Design indicator saw the greatest increase (+9 points) out of the three indicators measured under the Transparency dimension. This indicates that a greater emphasis has been placed by governments over the past four years on informing and involving users in the design of policy and service in the Transport domain. The Regular Business Operations life event, however, has seen the least improvement in terms of *Transparency* with only a 1-point increase over four years. Notably, although the Small Claims Procedure life event has relatively improved in the *Transparency* dimension since 2020 (+5 points), the room for improvement remains large as it only achieved a score of 58 points in 2023. EU governments should consider prioritising enhancing the transparency of service design for small-claims procedures bearing in mind that it showed the least improvement (+1 points) among the three Transparency dimension indicators over the fouryear period.

The Transparency key dimension witnessed remarkable improvement in Poland — (+23 points) in the European Union and Türkiye (Union and Türkiye ((+20 points) outside of the European Union in the period since 2020. Hungary (Union in the period since 2020. Hungary ((+11 points) and Austria (+9 points) emerged as key contributors to the most-improved countries in the EU27. Outside the EU27, Serbia (+18 points) demonstrated large improvements. All these situations exemplify their commitment to enhancing transparency in digital service processes, service design, and personal data usage.

Key Enablers

Encompassing vital IT elements, *Key Enablers* are the building blocks for safe, user-centric and consistent eGovernment. With an average score of 78 points, this dimension made the biggest improvement across all aspects, increasing by 4 points compared to the previous report. The *Key Enablers* dimension consists of the indicators *eID* (five survey questions), *eDocuments* (two questions), *Pre-Filled Forms* (two questions) and *Digital Post* (two questions). The *eDocuments* and *Digital Post* indicators continue to stand out as the best performing indicators within the *Key Enablers* dimension. In fact, submitting and downloading eDocuments as well as electronic-only communication with citizens or entrepreneurs remain prevalent in approximately 83%

of services. Considering its utility in providing individuals with a trusted and efficient means of authenticating for service, the *eID* indicator increased moderately to 71 points. With 97 points, Malta 📑 stands out as the top scorer within the EU27 region, followed closely by Finland 🗎 (95 points), Denmark 🗮 (95 points), Estonia 🗮 (95 points), and Lithuania 🗮 (94 points).

In the other countries, Türkiye 🞑 (95 points), Iceland 🚝 (95 points), and Norway 🚟 (92 points) score highest on *Key Enablers*.



Figure 7: EU27 average of Key Enablers indicators between 2020/2021 and 2022/2023

The significant 6-point increase over the past four years for *Key Enablers* is substantiated by a minimum increase of 5 points across all sub-indicators, with *Digital Post* acquiring the highest score (87 points).

Services within the *Starting a Small Claims Procedure* life event have exhibited the most improvement in the *Key Enablers* dimension, witnessing a notable 13-point increase over a span of four years. This progression stands out as the most significant rise in any key dimension across all life events in this past cycle. It is a notable advancement that can be attributed to significant increases in *Key Enablers* sub-indicators under the *Starting a Small Claims Procedure* life event, notably *eID* (+14 points), *eDocuments* (+12 points), and *Pre-Filled Forms* (+15 points), marking the most significant enhancements also among all sub-indicators. This indicates that governments in the European Union have considerably invested in enabling digital identity, digital documentation, and data pre-filling documentation for citizens wanting to access services relating to civil claims procedures.

Greece \cong (+24 points), Cyprus \swarrow (+20 points), and Poland \Longrightarrow (+15 points) showcased the most significant advancements in the Key Enablers dimension within the EU27.

For the other countries, Türkiye (16 points), Albania (+15 points) showed large improvements. It is evident that these governments made substantial investments in enhancing the IT infrastructure that supports their service processes.

Cross-Border Services

The Cross-Border Services key dimension has the most room for improvement. Its indicators of Cross-Border Online Availability (two questions), Cross-Border User Support (three questions), Cross-Border eID (two questions) and Cross-Border eDocuments (two questions), score an average of 66 points. In comparison to the previous report, there is still a big discrepancy between digital services available online for international users (56%) versus those for national users (88%). Additionally, *Cross-Border eID* is particularly underperforming with only 33% of countries providing cross-border users with the ability to authenticate using their national *eID*. However, improvement has been made to the availability of eDocuments for cross-border users, with nearly threefifths (59%) of services for cross-border users now accepting *eDocuments*. This compares to 52% in the EU27 from the previous year's data collection. Luxembourg 🔁 (92 points), Estonia 🗮 (92 points), and Malta 🚺 (92 points) maintain their leadership in the *Cross-Border* Services key dimension, showcasing strong scores indicative of the ease with which cross-border users can access services in these nations.



Figure 8: EU27 average of Cross-Border Services indicators between 2020/2021 and 2022/2023

The large growth within this dimension is led by the *Cross-Border eDocuments* indicator, which saw a significant 9-point increase, displaying the greater capacity of governments to digitally receive and provide necessary documents for services to cross-border users. Additionally, the second largest growth was experienced by *Cross-Border User Support*, increasing by a total of 7 points in the past cycle.

What is particularly notable about the *Cross-Border Services* dimension when looking across all life events, is that the *Family and Career* life events both had the biggest improvements with an 11-p.p. increase over the four-year period. Specifically, both life events experienced the biggest improvement in the *Cross-Border User Support* sub-indicator. This suggests that assistance functionalities have become much more prevalent on government portals tailored to serve cross-border users seeking services and information pertaining to life milestones and career pursuits than they were four years ago.

The least improved life event under the *Cross-Border Services* dimension, and also across all dimensions and life events, is the Studying life event. In fact, between 2021 and 2023 this life event only increased by 1 point. This means that on average over the past four years, EU27 countries have invested minimally in improving the ability of international students to access and use online services that national students would more easily access.

The country that improved its digital cross-border services the most is Greece 😂, which had an impressive 25-point increase over the past four years. Other top performers are Sweden 📬 (+17 points), and Latvia 😂 (+13 points) in the EU27. Outside of the EU27, Serbia 🔤 (+13 points) improved most. All these cases demonstrate greater maturity in their services oriented towards non-national citizens and businesses. Also among the top three are Netherlands ڪ (+17 points) and Romania 🚺 (+14 points), which also demonstrate substantially greater performance in their services to non-national citizens and businesses.

Advancing pillars in digital public service delivery

Interoperability is **essential** to better serve people *D* and businesses and to cut unnecessary administrative burdens.

Johannes Hahn, Commissioner for Budget and Administration



Advancing Interoperability Pillars in Digital Facilitating a seamless European digital single market through secure and efficient data **Public Service** exchange 🚯 Automatically exchanged data helps users accessing services Delivery 72% of online forms are pre-filled with personal data, reflecting a notable 4 p.p. uptick since 2020/2021 ${oldsymbol{\mathcal{O}}}$ Simple and secure authentication across the EU and its varying novernment levels Cross-National border 76% of national services 37% of cross-border services Digital currently accommodate eID currently accommodate non-national authentication users authentication via their Sovereignty national eID Empowering citizens and entrepreneurs with the ability to act independently in the digital world Central Regional Local AI Chatbots developed with EU values help users find the ركي 52% of services right service 84% of services 42% of services provided at the central provided at the regional provided at the local An average of 88% of EU portals offer live support level enable eID level enable eID level enable eID functionality, 29% of which are AI powered. authentication authentication authentication EU citizens enjoy significant access to and control over their personal data of all EU27 portals 86% 86% Resilience facilitate online provide access to data modification personal data Ensuring uninterrupted service provision for citizens and entrepreneurs, especially in 87% 90% uncertain and turbulent times provide a complaint permit users to procedure as it pertains report inaccuracies to personal data EU cyber security systems need to be enhanced for (?) maintaining resilient data infrastructures

But transparency regarding external uses of their data remain stagnant

Of all EU 27 portals only 58% of EU portals allow users to monitor who has accessed personal data and for what purpose.

Less than 1% passed all 14 measured security tests, which shows that most websites can still improve websites passed 49% of all security tests.

Within the EU, the egovernment benchmark measures services from

27 EU member states
 305 regional governments, such as provinces
 988 local governments, mostly municipalities

Advancing pillars in digital public service delivery

Upholding European values, including foundational legal and societal principles cherished by member states in their national contexts and promoted internationally, is integral to every endeavour undertaken by the European Union. Consequently, as the EU strives towards digital transformation objectives, its aim extends beyond global competitiveness to ensuring that these advancements resonate with and exemplify the essence of European values. Interoperability, digital sovereignty, and digital resilience are the focal points that are currently most relevant in the EU's digital policy landscape, which the eGovernment Benchmark provides insights on. These pillars serve as the cornerstones for fostering a cohesive digital ecosystem that not only facilitates seamless interactions but also safeguards EU pillars and interests in the digital public services realm.

Interoperability

The Interoperable Europe Act describes how optimal interoperability in the public sector enables more efficient and secure exchange of data. This results

in enhanced and seamless interactions between citizen, business and administrations.⁴ This legislation aims to implement a network of sovereign and interconnected digital public administrations and introduces a cooperation framework for EU public administrations to build a secure cross-border exchange of data and agree on shared digital solutions (i.e., open-source software, guidelines, checklists, frameworks, and IT tools). This dissemination of resources (mainly open source) ensures that administrative burdens, such as legal, organisational, semantic and technical obstacles are better addressed.⁵

Simple and secure eID authentication

eIDs are instrumental in realising interoperability goals within the public sector, fostering enhanced interactions among citizens, businesses and public services on both domestic and international fronts. Through seamless information exchange across diverse systems, platforms and organisational borders, eIDs streamline authentication processes and automate data pre-filling for services, reducing the reliance on manual intervention. Furthermore, by facilitating cross-border data flows, eIDs perfectly embody the principles of interoperability as delineated in the interoperable Europe Act and the eIDAS regulation.

Through the *eID* indicator, the eGovernment Benchmark measures eID availability and capability within the national context of EU countries through five questions. Specifically, the study landscapes whether it is possible to identify oneself online with an eID and if it is possible to access multiple services without re-authenticating. Since the 2020/2021 study, the EU27 average for the national *eID* indicator has increased by 6 points, making eID authentication possible for 76% of services in 2022/2023.

eID implementation is also measured in the cross-border context, indicating just how many countries allow national eIDs to be used to access services within another country. Although the trend in the increase of cross-border eID usage followed a similar trajectory to that of eID usage among national users, there is still substantial room for improvement.



Figure 9: Percentage of eID availability in public services for national and cross-border users

While experiencing a 6-point increase over the last four years, only 37% of cross-border services currently accommodate user authentication via theirnational eID. Furthermore, the 39% gap between the percentage of national and cross-border services that provide eID features suggests the need to address disparities.

^{4.} Europe's Digital Decade: digital targets for 2030 https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/ europes-digital-decade-digital-targets-2030_en

^{5.} Interoperable Europe Act: <u>https://commission.europa.eu/publications/interoperable-europe-act-proposal_en</u>

Additionally, the *Pre-Filled Forms* indicator identifies the extent to which online forms are pre-filled with persona information already known by the government, through two questions. This indicator may also provide insight into a country's interoperability performance, as the pre-filling of information necessitates seamless data exchange among diverse systems and databases. The 2022/2023 data collection revealed that pre-filled forms are accessible for 72% of services, reflecting a notable 4 p.p. uptick compared to the preceding cycle.

Interoperability between different government levels

Involving cities and regions is crucial in making interoperable digital services a reality. These local entities serve as the primary and final touchpoints in public service provision, while also boasting significant innovative potential. Currently, there is much room for the improvement of eID and pre-filling capabilities for services offered at the local and regional level.

From the national user perspective, only 42% of locallevel services currently making it possible to identify oneself online incorporate eID capability, while at the regional level, this figure stands at 52%. Similarly, prefilling features are incorporated into only 42% of services offered at the local level, compared to 57% at the regional level. Even more constrained, from the cross-border perspective, eID capability on the local and regional level is only available in approximately 20% of services.⁶

Conversely, central governments have exhibited greater success in promoting interoperable public service enablers. Remarkably, at the central level, an average of 37% more services offer an eID capability for national users, and 21% more services offer an eID capability for cross-border users, compared to those available at local and regional levels for both user types. Additionally, availability of pre-filled information capability is, on average, 29% higher in services provided at the central level than at the regional and local levels. Centrallevel services have also demonstrated faster rates of improvement over the past four years compared to local and regional-level services in two out of three interoperability-related indicators. Interestingly, the only capability where central services did not show the most improvement compared to the other levels of government is pre-filled forms, where local level services exhibited the highest improvement (+7 points). Overall, despite their contextual differences, budgets and political jurisdiction, central governments should provide insights to their own

local and regional governments on how to implement and improve such interoperability enablers.

Single Digital Gateway Regulation

Facilitated by the Interoperable Europe Act, the Single Digital Gateway Regulation (SDGR) aims to streamline online access to information, procedures and problemsolving services for EU businesses and citizens. By reducing administrative burden and costs associated with accessing cross-border services, this regulation promotes a cohesive EU approach and contributes to the establishment of a single market for cross-border activities. The SDGR mandates certain procedures to be online for cross-border users and ongoing monitoring of user feedback.

The eGovernment Benchmark monitors most of the procedures in the Single Digital Gateway, although definitions differ slightly between the Benchmark services and SDGR procedures. Currently, 91% of SDGR procedures are available online for national users, with 59% accessible for cross-border users, representing a significant increase compared to the overall service averages of 88% and 56%, respectively. Additionally, between 2021 and 2023, the number of services that are accessible online for cross-border users increased by a significant 12 p.p.

The Benchmark also evaluates feedback capabilities offered on portals intended for cross-border users through the Cross-Border User Support indicator. The indicator achieved a notable score of 78 points in the 2022/2023 data collection, positioning it among the highest-scoring indicators in the Cross-Border Services dimension at EU level. This prevalence of feedback tools devised at the national level demonstrates a commitment by national authorities to gain insights into user experiences that can be leveraged to improving the EU Single Digital Gateway. A recent advancement in the implementation of the SDGR is the introduction of the Once-Only Technical System (OOTS), facilitating cross-border information sharing among public administrations within the EU. The once-only principle advocates that individuals should not be compelled to furnish information to authorities if another administrative body already possesses such data in electronic format. This principle underscores the imperative of interoperability among diverse administrative entities, thereby substantiating the creation of a unified data space across the European Union

^{6.} Data on national eID is based on Question F3: If it is possible to identify oneself online, do you use an official electronic identifier (e.g. a national eID solution)? If the service requires a specific electronic identifier only suited for services from a single provider (e.g. a student account), or does not concern eID login (e.g. matricule number), the answer to this question is 'no'.

Life event	Service	Total extra countries providing this to CB users
Regular Business Operations	1.2 Declare social contributions	3
Health	1.3 Obtain a European Health Insurance Card	6
Health	2.1 Register and (re)schedule appointment at the hospital	5
Starting a Small Claims Procedure	3.2 Appeal against court decision	3
Moving	1.2 Register new address in municipality register	5
Moving	1.4 Obtain proof of residence	5
Transport	1.1 Register a second-hand car	3
Transport	3.1 Check information and plan a journey (involving multiple types of public transport)	3
Transport	3.3 Appeal and claim a ticket refund	3

The services that are being provided by countries for the first time are spread across all the five life events that were measured in 2023 and 2021, which are *Regular Business Operations, Health, Starting a Small Claims Procedure, Moving, and Transport.* Many of the services in the eGovernment Benchmark have a clear connection to the procedures that are listed in Annex II in the Single Digital Gateway regulation.

Reinforcing resilience of public administrations and digital sovereignty

Digital sovereignty, resilience and competitiveness are foundational principles guiding the Digital Decade policy programme. On our road to 2030, it is imperative that established



objectives delineated within the framework of digital transformation in the European Union, are effectively realized through the deployment of robust digital infrastructural frameworks.

The COVID-19 pandemic at the start of this decade and the invasion of Ukraine have underscored the critical need for resilient digital systems. As governments navigate through unforeseen challenges and disruptions, ensuring uninterrupted service provision to citizens becomes increasingly vital. Resilient digital systems play a pivotal role in achieving this objective, allowing governments to adapt and maintain service delivery in an environment of risks. Maintaining digital sovereignty, however, is about being able to benefit from digital technologies without being bound to design choices that do not reflect EU values. This includes the ability to innovate and develop technologies, services and infrastructures that can process vast amounts of data, while maintaining values outlined in the Declaration on Digital Rights and Principles for the Digital Decade. Furthermore, aiming for digital sovereignty and resilience entails EU autonomy and control in safeguarding the integrity and interests of digital systems and infrastructure.

Data sovereignty

Data privacy and protection is not only a pillar in the aim for digital sovereignty in the EU but is also at the forefront of EU citizens' concerns. In



our ever-more 'datafied' world, there is a pressing need for EU citizens and businesses to regain and maintain control over their personal information and privacy. The public sector should be leading this petition for data sovereignty, striking a balance between control and privacy rights when handling citizens' personal data. As stated by Commission Vice President Margrethe Vestager, "EU citizens want to trust technology when they use it and not begin a new era of surveillance". The eGovernment Benchmark measures the extent to which users can manage their personal data held by governmental organisations through the *Transparency of Personal Data indicator* (5 survey questions). This year's data collection reveals European Union governments provide high levels of data sovereignty to their citizens on government portals, albeit with some room for improvement. Of all portals surveyed in the EU27, an average of 86% grant access to personal data, 90% permit users to report inaccuracies, 86% facilitate online data modification, and 87% provide a complaint procedure as it pertains to personal data. However, only 58% of portals allow users to monitor who has accessed personal data and for what purpose, necessitating greater transparency from EU governments on this front. The best score for this indicator comes from the Studying life event



Figure 10: Transparency of Personal Data provided by portals across the EU27

(83%), meaning citizens seeking services related to the educational domain have the most clarity and access to their personal data. While all life events have potential for improvement, *Small Claims Procedure* (66%) stands out as the lowest ranking and the life event with the greatest need for enhancement.

Cybersecurity

As an increasingly prominent global player in politics, economics and security, the EU can become a target for cyberattacks. Recognising the significance of safeguarding against such threats and ensuring the resilience of the European Union's digital supply chains and infrastructure is integral to both the EU Strategic Compass (a comprehensive plan to fortify its security and defence policy) and the Digital Decade framework. Additionally, the European Declaration on Digital Rights and Principles for the Digital Decade underscore the EU's unwavering commitment to protecting the interests of individuals, businesses, and public institutions against cybersecurity risks and cybercrime. Furthermore, a digitally resilient EU is also one with public institutions that have effective cybersecurity systems.

As a pilot indicator, *Cybersecurity* sees the eGovernment Benchmark assessing the cybersecurity hygiene of all evaluated government websites based on 13 cybersecurity criteria. This assessment is based on two publicly available tools: the Internet.nl tool and the Mozilla Observatory tool. These tools are used to perform a basic test that provides a first indication of the security of websites. It should be noted that these tests provide an indicative understanding, rather than attempting to conclusively or comprehensively assess cybersecurity. Positive results do not guarantee a completely secure website, just as negative results do not necessarily imply that a website is unsafe. False negatives are unlikely, but undetected alternative cybersecurity solutions may have been implemented.

This year's data collection revealed that out of all the security tests, 50% attained a pass score in line with the threshold values established by the testing tool providers. Worryingly, out of all government portal websites evaluated across the EU27, less than 1% received a pass for all 13 security criteria. In particular, only 3% of the websites prevent a wide range of cross-site scripting and clickjacking attacks (content security policy) and only 10% ensure a secure HTTPS connection to prevent third parties from reading or changing content sent between the user and the website. Fortunately, almost all websites prevent foreign sites from reading the site content and accessing private user information (cross-origin resource sharing at 95%) and encrypt the data transmitted between a user's browser and the website (94%).

All countries have considerable room for improvement in their website security measures. The Netherlands is notably distinguished as the sole government to have websites meeting all 13 security criteria. Additionally, the Netherlands leads in the number of government websites complying with either all Internet.nl security standards or all Mozilla Observatory security standards. Further, Austria and Estonia are notable for having the highest number of government websites meeting all Mozilla Observatory security standards, whereas Sweden and the Czech Republic are highlighted for having the highest number of government websites meeting all Internet.nl security standards.

Furthermore, to uphold resilient data infrastructure and supply chains in the European Union, public administrations should enhance their cybersecurity systems. These initiatives may encompass securing effective procurement methods to embed security by design principles and allocating budgets strategically to bolster investment in an advanced cybersecurity framework.

Artificial intelligence

Enhancing EU AI capabilities has been a key element in the wider strategy of making the EU fit for the digital age. This is especially crucial for the topic of sovereignty as it ensures independence from AI models created with design choices made elsewhere that do not reflect EU values. There has been substantial investment in AI development by the European Commission, through the Horizon Europe and Digital Europe programmes, which has led to the EU being one of the major economies for AI venture capital investment. Nevertheless, there remains potential for additional investment in the development of independent AI models, particularly to maintain competitiveness on the global scale.⁷

Through the *User Support* indicator, the eGovernment Benchmark assesses the availability of live support functionality on portal websites, enabling users to access information via chatbots. These chatbots often utilise artificial intelligence to provide accurate guidance to users navigating government portals, offering an avenue to evaluate AI capabilities across the EU. It is important to note that an assessment regarding the superiority of AI chat over live support involving government employees were not included in this study's data collection.

This is because users' choice of speaking with a live representative or AI is primarily a point of preference, with benefits to both options. In fact, the focus is solely on identifying the availability of AI capabilities across the EU. Evaluation of AI chatbot capabilities was only incorporated into the study this year, therefore only portal websites grouped under five life events (Regular Business Operations, Starting a Small Claims Procedure, Moving, Transport, Health) were evaluated. Across these five life events, an average 88% of portals offer live support functionality, with 29% featuring an AI chatbot capability that does not involve direct interaction with a government employee. The Regular Business Operations life event scored the highest for this capability, with 96% of portals offering a live support functionality, more than half (52%) of which featured an AI chatbot capability. Notable examples of EU AI chatbot capabilities include the Greek Gov.gr Ai digital chatbot (mAigov) and the Portuguese Virtual Assistant (AI), which are elaborated in the image below.

^{7.} Implementation of the Digital Decade objectives and the Digital Rights and Principles – Digital Decade report 2023 <u>https://digital-strategy.ec.europa.eu/en/library/</u> implementation-digital-decade-objectives-and-digital-rights-and-principles-digital-decade-report



Reducing disparities among public digital service delivery

We need to step up the efforts to make sure that **PP every SME, business, and industry** in the EU have the best digital solutions available to them and have access to a world-class digital connectivity infrastructure.

Thierry Breton, Commissioner for the Internal Market



Reducing disparities among public digital service delivery

In pursuit of ambitious goals for the EU's digital transformation, it is imperative to confront the discrepancies in performance across countries, user groups and government levels to nurture inclusive and efficient digital service delivery throughout the region. In this chapter, we illustrate the disparities in performance across various dimensions: between leading and developing countries, services tailored for citizens versus those for entrepreneurs, different tiers of government (local, regional, central), and services catering to national users versus cross-border users. Understanding the web of gaps that exist may help identify pain points for member states to pursue as they narrow these divides.

Differences in eGovernment between the best and least digital

Not all countries in the EU27 are in the same phase of their digital transformation, as the gap between the top 10 and bottom 10 performing countries illustrates. Figure 11 shows how the gaps between the leaders and the laggards across different dimensions affect the overall score. The score difference is smallest within the key dimension of *User Centricity*, where the difference is less than 10 points. For the key dimensions of *Transparency* and *Cross-Border Services*, the gap is substantially larger, respectively 31 points and 34 points. This demonstrates that countries are prioritising a user centric and digital government. Only when their user-centric digital government is more established do they then develop their public services in the dimensions of *Transparency* and *Cross-Border Services*.

Figure 11 also depicts how the gaps have evolved over the four-year period between 2020 and 2023. Coming from a 28-point difference between the top and bottom performers, it now sits at 23 points. This fivepoint decrease between the average of the top 10 and bottom 10 performers reveal a diminishing disparity in eGovernment performance. The efforts that these governments are making is essential for a widespread resilient digital environment in the EU.

While still having a 28-point gap, the *Key Enablers* dimension has seen the gap between its performers and laggards reduced the most The *Cross-Border Services* dimension maintained the biggest gap (34 points) between its performers and laggards. It improved the least over four years, only reducing the gap by 3 points. The *User Centricity* dimension had the second least improvement in reducing the gap between top-performers and laggards, while having the smallest gap in the 2022/2023 study.



Figure 11: Gaps between top 10 and bottom 10 performing countries between 2020/2021 and 2022/2023

Services for citizens and for entrepreneurs

The nine life events, which cluster all the services that are measured in the eGovernment Benchmark, can

be distinguished in two groups. In two life events, the individuals that request the services are entrepreneurs, acting on behalf of their company. For the other seven life events, the individuals that request the services are citizens, acting on their own behalf

Life event measurements - conducted on a biennial basis for different groups of events

What we measure for businesses:

- Regular Business Operations (2023): For entrepreneurs, we assess the ability to complete corporate tax declarations and submit financial reports via digital channels. We check for information on working conditions for employees, and whether businesses can change employee status online.
- Business Start-Up (2022): For citizens who want to start a business, we assess the administrative steps to register a new company. We also evaluate whether users can obtain a tax registration number online and how easily they can find mandatory insurance schemes. Early trading activities, such as hiring employees and requesting permits, are measured too.

What we measure for citizens:

- Starting a Small Claims Procedure (Justice) (2023): For citizens involved in an accident, we assess
 whether they can find information online about making a legal claim and whether they can do so online.
 It also includes consideration of how to appeal online.
- Transport (2023): For car owners, we assess whether information on vehicle taxes, insurance obligations, and registration obligations is available online; whether it is possible to verify information on second-hand vehicles in the car registry; and whether fines and duties relating to a private car can be settled online.
- Moving (2023): For families moving into a new residence, we assess what online information is available on local schools and amenities; whether it is possible to register the new address in the municipality online; and whether other relevant authorities are notified automatically.
- Health (2023): For citizens that require healthcare services, we measure services related to obtaining basic healthcare, searching for relevant healthcare providers, applying for the European Health Insurance Card (EHIC), receiving e-consultations, and accessing digital medical records.
- Career (2022): For citizens who lose their job, we assess whether they can register as unemployed online; whether information on unemployment benefits and entitlements is available; and whether these can be applied for online. Similarly, assistance services for finding a job are assessed, along with information on retirement as well as online pension claims.
- Studying (2022): For students, we assess the enrolment process in university programmes in the country of origin and abroad; whether application procedures for student loans and other financing schemes are available; and if, for students already enrolled, they can track grades online.
- Family (2022): For parents, we assess applying for child maintenance allowance online; obtaining parental authority for unmarried partners; and requesting a passport or replacement birth certificate.

Entrepreneurs still benefit from better service than citizens

From the most recent data collection, the performance assessment of services for entrepreneurs scores better than the one for citizens. The outperformance of business-related services over citizen-related services is nothing new. In more detail, Figure 12 shows that the average overall score for EU27 services for entrepreneurs is 83 points, whereas those provided to citizens score an average of 74 points. This difference is the result of more mature scores for business-related services across all four key dimensions (User Centricity, Transparency, Key Enablers and Cross-Border Services). The largest gap between business-related and citizen-related services sits within the domain of Key Enablers, where the difference reaches nearly 16 points. This implies that entrepreneurs are more equipped with technologies helping them efficiently complete digital processes, such as authentication through a national eID or the ability to submit documents digitally.



Figure 12: Gaps in overall scores and key dimensions between citizen-related and business-related services between 2020/2021 and 2022/2023

Overall, we can see that life events encompassing services catering to citizens are improving at a quicker pace than those oriented towards entrepreneurs and businesses. The improvements between the 2020/2021 data and 2022/2023 data are higher for citizen-related services among each life event. However, while the improvement is higher, it is noteworthy that the overall scores continue the trend of citizen life events falling behind the scores of business life events. Therefore, we may expect the pace of development to potentially address this imbalance between citizen and business life events in the future.

Interestingly, in the context of digital sovereignty, it is good news that the decrease of disparity has been the biggest for the *Transparency* key dimension, where the gap decreased from 11 points to nearly 8 points. It demonstrates, for example, that retrieving insights into personal data usage is increasingly becoming the norm for citizens, as with entrepreneurs.

Citizen-related services are starting to catch up

A similar evolution is seen in Figure 13 analysing services regarding online availability and a selection of *Key Enablers.* Within each of the indicators, the business-related life events are more developed than their citizen-related counterparts. For example, most recent data shows that 97% of all services for entrepreneurs were online, compared to 84% of the services for citizens. The largest gap is seen in the *Pre-Filled Forms* indicator showing whether a service that includes an online form is partly pre-filled with data by the service. This helps users to efficiently complete the service and reduces the likeliness of manual errors during completion.

The difference between services for business (87% availability) and citizens (66% availability) is 21%. Almost all the disparities between business-related and citizen-related services have decreased over the past four-year period. The percentage of services that are online for cross-border citizens has caught up significantly with that for businesses, where the difference has reduced from 8 points to nearly 5 points. The only exception is for the percentage of services that are online available for national users, where the gap has not increased. Similar to the differences in the *Key Enablers* dimension, this shows that citizen-related life events are slowly catching up. A continuation of this trend will at some point phase out the disparities between these two types of services.



Figure 13: Gaps in online availability and key enablers between citizen-related and business-related services between 2020/2021 and 2022/2023

Services from local, regional, and central government bodies

Public services are offered to citizens and entrepreneurs within the European Union from different governmental levels. The level on which a service is provided depends per country on the type of service or on the delegation of legal responsibilities within the respective country.

Within the EU27, the eGovernment Benchmark measures services from

- 27 EU Member states
- 305 regional governments, such as provinces
- 988 local governments, mostly municipalities

In the eGovernment Benchmark, three governmental levels are specified. From the largest to the smallest, these are central (national), regional (e.g. provinces, universities, hospitals) and local (municipalities) governments. The average performance of digitalisation tends to vary between these governmental levels. Reflecting their geographical size, centrally offered services are often found to be most developed, followed by regional services, and then local services.⁸

Figure 14 shows that the average *Online Availability* of services is 91% for central government services, 82% for regional government services and 71% for local government services. Improvements are present over the past four years for each of the government levels. Regional governments have reduced the gap between their online service availability and that of central governments by nearly 5 points (down from a gap of 14 to 9). Local governments did the same with over 4 points (down from a gap of 25 to 20).



Figure 14: Gaps in overall scores and key dimensions between central, regional and local services between 2020/2021 and 2022/2023

8. Note that the eGovernment Benchmark does not (and cannot) measure all local and regional service providers. The sample chosen for local and regional service providers consists of the biggest cities/regions in a country. The sample size for local and regional service providers differs between 5 and 20, depending on country population size. A one-to-one comparison between central, and local and regional service providers is further complicated by the type of services delivered by different government entities (e.g. income tax for central government entities, and obtaining a parking permit for local government entities)

This illustrates how regional and local governments have made most efforts into offering additional services online for the first time.

In relation to the online service offering to national users, the online offering to cross-border users is substantially lower. The indicator *Cross-Border Online Availability* for central services scores 69%, followed by regional services at 34% and local services at 30%. This suggests that geographically smaller government levels have given much less priority to the requirements of cross-border users than central governments, reflecting a four-year trend. With the most room for improvement, regional and local governments have missed opportunities to improve their delivery of cross-border online availability. In practice, this often means that municipalities, provinces, or hospitals are missing a translated version of their service or are missing specific information for cross-border users.

The *Key Enablers* indicator of *eID* reflects a similar trend to *Cross-Border Online Availability*. The central governments across the EU27 have spent much effort over the past four years in developing their overall eID implementations, increasing the availability of this feature for nearly 8% of all the central services, to 84% in total. On this domain, regional governments have made very limited progress (just over 1 p.p. of all regional services) and local governments have increased the availability for just over 4 p.p. of all their services. These government levels, therefore, can still benefit much from implementation of a national eID authentication, helping users to authenticate online securely and easily.

On the other hand, the pace of developments within the *eDocuments* indicator shows that local governments are mostly catching up with the standard set by central governments. On this front, the reduction of the disparity between government levels is the biggest. Coming from a 39-point gap, the difference has now reduced to nearly 33 points. While this is still a very sizable difference, as this trend continues, citizens will increasingly be able to submit documentation digitally to their municipalities.

Services for national and international users

With the right to free movement across a large part of the EU, expectations are high from citizens and entrepreneurs for eGovernments to accommodate their travels. And on a regulatory level, the Single Digital Gateway Regulation aims for digital availability of services to be online for both national users and cross-border users, as described earlier in this report.

Within the EU, the total amount of online services differs greatly for cross-border and national users. National users can use 88% of all the offered services digitally, whereas this is only 56% of the services for cross-border users. This means that, on average, cross-border users are missing the availability of 32% of all their services in comparison to the online availability of national services. Over the past four-year period, this gap has decreased slightly, coming down from 35%.

A variety of barriers can prevent cross-border citizens and entrepreneurs from successfully completing a service and seven of these have been measured in the eGovernment Benchmark over multiple years. In general, over the past four years, all the measured barriers have decreased across the *Cross-Border Services* dimension within the EU. The biggest barrier is the absence of a translated version of the online service. 44% of the websites are still missing a translated version of the necessary information, with only a small decrease (2% of the total measured websites) over the last four years. Next, the absence of information specifically for international users is missing in 27% of the services, such as how users can obtain a service without a place of residence or a working permit in the respective country.

In 21% of all cases, international users cannot access a service because the national eID is required. Happily, this barrier has almost halved since the measurement taken across 2020 and 2021. The reduction of this barrier is linked to the increase in the indicator of *Cross-Border eID* implementation, which moved from 29% to 37%. In 15% of the cases where international users request a service, there is a necessity to have face-to-face contact with the authorities. For citizens and entrepreneurs who do not (yet) live in the country where they want to obtain a service, this is an extra barrier. Another barrier is the inability for international users to submit or obtain documents digitally. This was the case in 12% of the cross-border services in most recent measurements, which also nearly halved over the course of four years.



Figure 15: Online availability of services for national and cross-border users between 2020/2021 and 2022/2023

In addition, in 10% of the cases, cross-border users cannot complete a service due to issues with the translation or recognition of their documents.

The barrier of unclear transformation has only recently been introduced as a metric in the eGovernment Benchmark, which means that data from 2020 and 2021 is missing. It shows that in 5% of cases, cross-border users are experiencing unclear translations, which block international users from successfully completing their requested service.

These barriers are often experienced in combination. 72% of the services within the European Union with a barrier, have more than one. Clearly, successfully removing one barrier does not automatically pave the way to a seamless digital environment for cross-border users. The overall reduction of these barriers can likely be attributed to the efforts governments are taking to comply with relevant policies, such as the Single Digital Gateway Regulation, eIDAS regulation and Digital Decade ambitions.



Figure 16: Barriers for cross-border use of online services between 2020/2021 and 2022/2023

Key conclusions towards a Single Digital Government

The journey towards the full achievement of the Digital Decade targets is still long. Now is the time to take every measure to **bridge the gap** and ensure that the full digital transition is reached by 2030, **without leaving anyone behind.**

Věra Jourová, Vice-President for Values and Transparency



Key conclusions towards sovereign and resilient digital governments

Reflecting on the strides made in the EU's digital transformation, it is evident that governments are investing in enhancing digital service delivery for citizens and businesses.

The 2022/2023 data collection revealed that *User Centricity* remains the top priority, emphasising accessibility, ease of use, and robust support on government portals for citizens seeking online services and interactions. Over the past four-years, the User Centricity dimension demonstrated notable progress, particularly in the *User Support* indicator, although its overall score showed the least development compared to other dimensions.

Key Enablers emerged as one of the most improved dimensions since the 2020/2021 study, with subindicators such as *eID*, *eDocuments*, *Pre-Filled Forms* and *Digital Post* showing consistent advancement over the four-year period. The eGovernment Benchmark found that, in addition to *Key Enablers* being the secondhighest ranking dimension in 2022/2023, *Digital Post* and *eDocuments* remained the best-performing sub-indicators within this dimension.

In the *Transparency* dimension, moderate improvement was observed since the previous report, indicating ongoing efforts for enhancement. However, this dimension holds the second-lowest ranking, signalling a need for further improvement, particularly in transparency during service delivery, including clear process descriptions and timelines. Nevertheless, the *Transparency of Service Design* sub-indicator showed the most improvement over the past four years, highlighting a trend towards increased citizen involvement in digital service design.

Despite significant improvement over the same period, *Cross-Border Services* remain an area of concern, with a notable gap between digital services available for national users and those accessible for international users. On the other hand, *Cross-Border eDocuments* have seen a substantial increase, while *Cross-Border eID* requires enhanced attention to promote interoperability within the EU's digital landscape and further implementation of the eIDAS regulation.

Advancing pillars in digital public service delivery

Interoperability, digital sovereignty and digital resilience are pillars that serve as the cornerstones for facilitating seamless interactions between citizens, businesses and public institutions, but also safeguard EU values and interests in the digital realm. The eGovernment Benchmark sheds light on such focal points, providing insight into how digital transformation achievements resonate with the essence of EU values.

Interoperability challenges persist across borders and non-central entities

The Interoperable Europe Act seeks to foster seamless interactions among citizens, businesses and administrations by facilitating secure cross-border data exchange within the EU. This legislation introduces a cooperation framework for EU public administrations to securely exchange data and disseminates resources for addressing obstacles in achieving interoperability. The eGovernment Benchmark landscapes the availability of eID from both a national and cross-border perspective, as well as pre-filling information capabilities when accessing services. As all three metrics involve a certain level of data exchange between two systems, they provide insight into interoperability measures in the EU.

While there has been progress in eID and pre-filling information capabilities across the EU27, there are still certain disparities amongst user segments. Specifically, we see more national services offering eID capabilities than cross-border services. Additionally, while central governments excel in promoting interoperable public service enablers, local and regional entities have room for improvement, particularly in eID and pre-filling capabilities.

Compliance with a quality metric of the Single Digital Gateway Regulation

The Single Digital Gateway Regulation aligns with the Interoperable Europe Act, enhancing EU interoperability by centralising access to EU administrations' information through a single gateway. The eGovernment Benchmark provides insight into the extent to which EU governments can comply with a certain quality assurance metric of this regulation. Specifically, the *Cross-Border User Support* indicator's average score of nearly 80 points suggests that EU27 cross-border portals have user-feedback capabilities allowing them to comply with the Single Digital Gateway Regulation's obligation of monitoring user-feedback on cross-border portal websites.

EU citizens have high levels of data sovereignty

With increasing data exchange among citizens, businesses and public institutions, it becomes imperative for the latter to champion the aims of data sovereignty. This entails granting data providers a degree of authority over the information they entrust to public entities. The eGovernment Benchmark evaluates the degree to which users can oversee their personal data maintained by governmental bodies via the Transparency of Personal Data sub-indicator. The data collected in 2022/2023 showcased significant levels of personal data sovereignty throughout the EU27, with nearly 9 out of 10 portals featuring essential metrics for users to manage their personal data held by government organisations. However, there is still room for improving users' ability to monitor who has accessed their personal data and for what purpose, with only just under 60% of portals facilitating this feature.

EU cybersecurity enhancement warranted

Cybersecurity threats stand out as among the most crucial challenges within the digital government landscape, demanding effective navigation and mitigation strategies. This is also prioritised in the EU, through legislations such as EU Strategic Compass and the Digital Decade framework. The eGovernment Benchmark assesses government website security using two tools, revealing a concerning lack of adherence to cybersecurity standards across the EU27. Specifically, only 6 out of 13 security criteria met the pass threshold established by the testing tool providers, with less than 1% of all assessed government portals achieving compliance with all 13 security criteria. Nations demonstrating high performance typically enact proactive policies aimed at enhancing awareness and offering resources and mechanisms to bolster resilience and security. The Dutch internet.nl tool serves as a notable illustration of this approach.

Emerging AI-chatbot models show potential for EU AI-sovereignty.

The development of artificial intelligence capabilities is an important part of EU's digital transformation agenda. It not only aligns with global technological advancements but also safeguards the EU's technological sovereignty, ensuring that AI models reflect EU values in their design choices. As part of the eGovernment Benchmark, the availability of AI-powered chatbots across portal websites sheds light on the varying degrees of AI integration across different sectors and life events in the EU. Findings underscore a notable scarcity of AI functionalities on government portals, with on average just 3 out of 10 offering AI-powered chatbot capabilities. Amidst this developing landscape, promising AI-chatbot instances emerge.

Continuing the reduction of disparities across service delivery

With just a few exceptions, the persistent gaps that previous eGovernment Benchmark reports recurringly pointed out, are slowly and steadily reducing. In the light of a sovereign and resilient digital EU, this is a desirable trend. And it was seen across all the overall disparities measured.

Further reducing digital divide between top and bottom-performers

The disparity between the top-performers and the bottom-performers is one that naturally exists, yet the size tells us much about the digital divide across the European Union. The average overall score of the 10 topperformers is 87 points, compared to 64 points for the 10 bottom-performers. This 23-point difference is a decrease by 5 points over the past four years. Continuing this trend will require continuous efforts by the less digitally developed governments in the coming years.

Bridging the gap in service delivery for entrepreneurs and for citizens

The average overall score for services for entrepreneurs sits at 83 points, compared to 74 points for citizen-related services. These citizen-related services have slowly caught-up with the business-related services, reducing the disparity by 3 points over the past four years. The reduction in this gap is the effect of the improvement of service delivery for citizen-related services. However, the gap in online availability of services for national users has only declined minimally, now still showing a notable difference between business-related services (97% available) and citizen-related services (84% available).

Local and regional governments need to catch up with central governments

Across online availability and service delivery indicators, services from central governments still outperform those from regional and, especially, local governments. The online availability for national users sits at 91% for central government services, 82% for regional government services and 71% for local government services. Compared to central governments, the gap in online availability for national users has been reduced by regional governments (5 points) and by local governments (4 points) over the past four years. For cross-border users, central governments have made the most use of their room for improvement. These smaller government entities must give further priority to tailoring their services to cross-border users.

Tailoring existing national services to the requirements of cross-border users

The last gap that can be addressed in the path to a digitally sovereign and resilient EU is between national and cross-border services. Currently, availability of services for national users sits at 88%, compared to the 56% availability for cross-border users. Over the past four-year period, this gap has decreased slightly. There is a wide variety of barriers facing international users that should be addressed before expectations of cross-border citizens are matched.

These developments, which can likely be attributed to the policy priorities discussed in this report, should be maintained to reach the targets of the Digital Decade in 2030. Widespread performance of digitalisation is a precondition for reflecting EU values in the delivery of public digital services throughout the European Union.

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