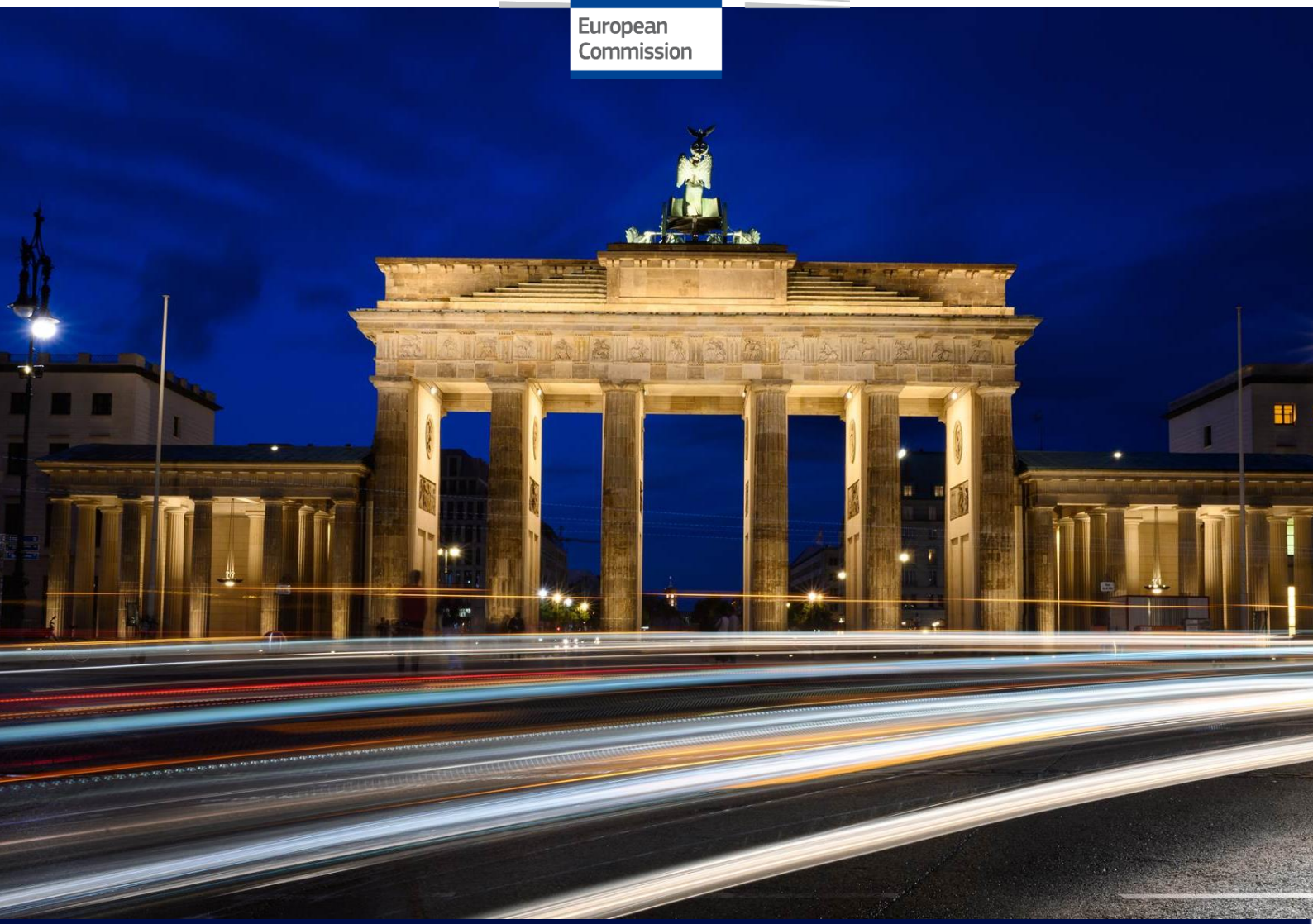

Report on the monitoring of the Berlin Declaration

Directorate General for Digital Services

July 2024

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Foreword

The Berlin Declaration on Digital Society and Value-Based Digital Government has been an essential pillar for EU Member States to ensure that the rapid digital transformation of our society aligns with European fundamental rights and values. For the last three years, the Declaration provided a cohesive framework guiding ethical and inclusive digitalisation, addressing concerns such as privacy, security, and accessibility, while promoting social participation, trust in digital services, and environmental sustainability. By establishing common principles and policy areas, the Declaration helped Member States navigate the digital transition collectively, fostering a unified approach to leveraging digital technologies for public good and safeguarding against potential negative impacts. The Berlin Declaration and its monitoring reports have also helped put emphasis on these issues by providing evidence and insights into how Member States are practically applying the Berlin Declaration's principles in their national contexts.

The signatories of the Berlin Declaration set out to implement a number of Policy Actions by 2024. Considering the monitoring exercise in its entirety, the third and final report demonstrates that progress has been made in all areas since 2021, most notably in human-centred AI systems for use in the public sector (Policy Area 6) and in enhancing trust through digital security (Policy Area 4). However, the pace of progress has varied both across Policy Areas and across countries, with some Policy Areas experiencing slower advancements. In fact, compared to the 2022 results, two Policy Areas have shown either a stagnation of progress or a slight step back: the promotion of fundamental rights and democratic values in the digital sphere (Policy Area 1), which, despite relatively good results, still presents room for improvement, and digital empowerment and literacy (Policy Area 3), which continues to lag behind in comparison to other Policy Areas.

The latest edition of the Berlin Declaration is also an opportunity for Member States to reflect on the experience as a whole and on how they could further reach its goals and strengthen its principles in the future. In this view, the results presented above call the Member States to further strengthen their commitment for a human-centered digitalisation in the years ahead of us. While the Declaration's application comes to an end, the core values it promotes will continue to be vital for digital governments across the EU, including to reach the Digital Decade Policy Programme's objectives.

Hereby, we would like to take the opportunity to thank all stakeholders involved in the production of this report, which is the result of a collective effort by the initiator German Presidency (2020), the European Commission, the Hungarian Presidency of the Council, and all 27 Member States that have provided the data and the inspiring examples of good practices and challenges.

While acknowledging substantial achievements during the past years of the Berlin Declaration's monitoring mandate, in the context of the need to accelerate progress towards the Digital Decade's goals, work on digitalisation is to be continued. The Hungarian Presidency of the Council therefore invites all Member States to jointly draw a path to a more competitive and human-centric digitalisation, also based on the experience and results of the Berlin Declaration's implementation.

For such a joint effort committed to a more inclusive, human-centric, competitive, sustainable and resilient digitalisation of the European Union, on behalf of the Hungarian Presidency of the Council, I wish all Member States and the European Commission every success in this endeavour.

Zoltán Guller

CEO of the Digital Hungary Agency

Executive Summary

Context

What is the rationale behind this report?

- In December 2020, after the signature of the Berlin Declaration by all EU Member States, each country agreed to a set of 22 Policy Actions to be implemented in their national frameworks by 2024. The European Commission was then called upon to implement and monitor progress towards these Policy Actions and overall principles of the Declaration.
- It relates to the first edition of the State of the Digital Decade Report which assesses the presence of online and citizen-centred key public services by 2030.

Objectives

What are the goals of this report?

- Provide evidence on how the EU public administrations are driving a value-based digital transformation, showcasing Member States' progress towards achieving the Policy Actions outlined in the Berlin Declaration.
- Discover good practices and lessons learnt.
- Support decision-makers in implementing their digital priorities and policies.

Novelties

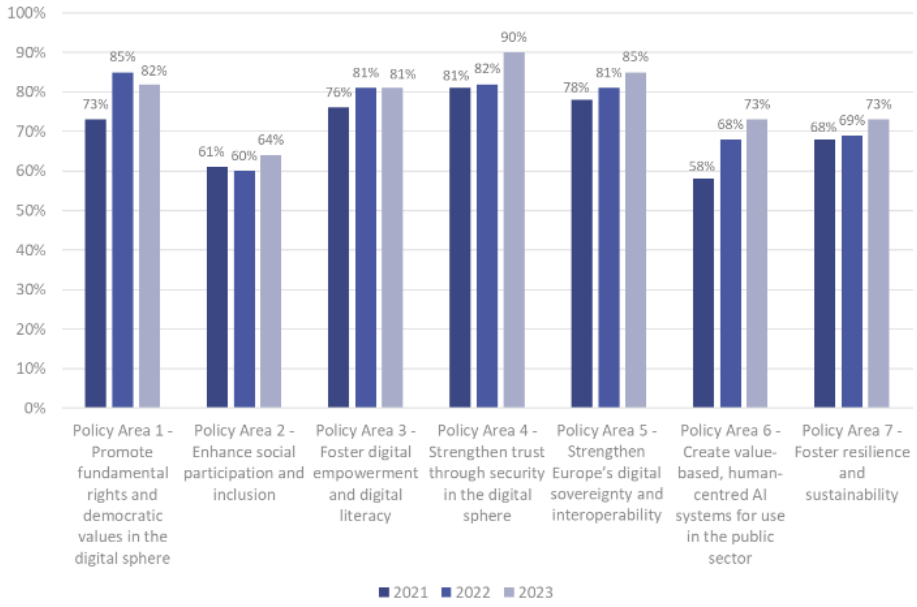
What are the novelties of this year's report?

- It presents the 2023 results, as well as a detailed overview of the evolution of the BDM results for all Policy Areas and Policy Actions between 2021 and 2023.
- To reflect on this last edition, it includes Member States' feedback on the overall BDM exercise since its inception in 2021.

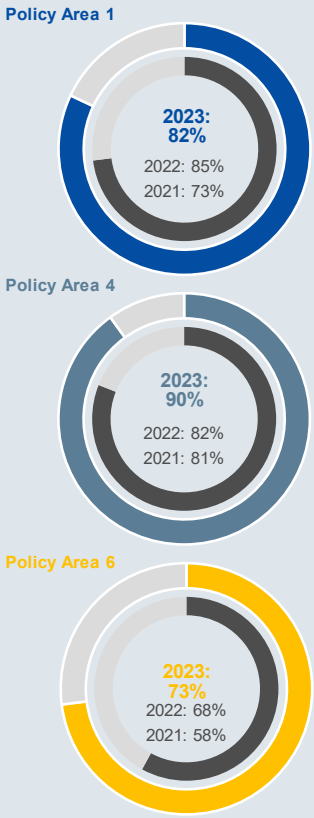
Key results

All Policy Areas, at EU average level, are experiencing a positive growing trend in 2023 – some at a slower pace than others – except Policy Area 1 where there is a decrease of 3 p.p. and Policy Area 3 where the score remained constant since 2022.

Policy Areas where Member States are scoring the best in 2023 are not necessarily where they have progressed the most over the previous years (2021 and 2022).



Most progressing Policy Areas (2021-2023)



Introduction

The Berlin Declaration and its monitoring – Policy context

By adopting the Berlin Declaration on Digital Society and Value-based Digital Government (hereafter, 'the Declaration') in December 2020 under the German Presidency of the Council of the EU, European leaders have reaffirmed their commitment and dedication to assert the role of public administrations in driving a user-centric and value-based digital transformation of European societies. Building on commitments made in the Tallinn eGovernment Declaration, this Declaration reinforces, through 7 key principles, that digital transformation in Europe should be based on democratic values and ethical principles. Thus, the Berlin Declaration recognises the public sector as an essential element of the European Single Market and a driver for new and innovative technological solutions for public services and societal challenges.

This work is aligned with actions launched by the European Commission, in particular with the Digital Decade presented by the European Commission's President Ursula von der Leyen in 2020 to ensure that the EU shapes its digital transformation according to its values and strategic interests. This initiative includes the Digital Decade Policy Programme, which sets out ambitious targets to be reached by the EU and its Member States by 2030 and that is monitored on a yearly basis, which started in 2022-2023 with the publication of the first edition of the State of the Digital Decade Report. The second edition of this Report for 2023-2024 has been published on 02 July 2024. Among other key progress indicators, the above-mentioned Reports assess the presence of online and citizen-centred key public services by 2030. Still in line with the objectives of the Digital Decade framework, the European Commission, the Council and the European Parliament adopted, in January 2022, a Declaration on Digital Rights and Principles aiming to continue the EU efforts to promote value-based digital transformation.

In order to monitor the implementation of the Berlin Declaration by the Member States, the European Commission created the Berlin Declaration monitoring mechanism (BDM) in 2021. Its primary advantages include showcasing the progress and efforts made by Member States towards achieving the Policy Actions outlined in the Declaration, as well as shedding light on good practices and lessons learnt along the way. In addition, this work is meant to support decision-makers at both EU and national levels in implementing their digital priorities and policies, identify any gaps or areas of improvement where the Member States and the Commission could intervene and provide support.

The results of the first and second data collections were summarised in progress reports, published in 2022 and 2023 under the Presidencies of the Council of the EU. Before the second data collection exercise, some improvements were made to the BDM framework, in particular its key performance indicators (KPIs), as well as the online survey, to facilitate the exercise for the Member States, based on their feedback. More information on these changes and their implications regarding the comparability of results throughout time is available in the Appendix.

Specificities of this year's Report

This third and last report, published under the Hungarian Presidency of the Council of the EU, provides an **overview of the progress** made by the Member States in implementing the Policy Actions of the Declaration **during the last year** (2022-2023) and **since 2021** (2021-2023), as well an assessment of the overall performance of Member States (EU average) under each Policy Action over time. The report analyses data stemming from the data collection of the BDM exercise, which reports and highlights, on a yearly basis, the measures taken by each Member State to reach the above-mentioned Policy Actions, and identifies good practices and lessons learnt from each of them. Additionally, this year's report includes **Member States' feedback on the overall BDM experience**, as well as insights on their priorities and expectations for the future.

Structure of the Report

This year's report is structured as follows:

- The present **Introduction** gives an overview of the current EU policy context and its link with the rationale behind the Berlin Declaration, its monitoring mechanism, and this year's report. It also presents the novelties as well as its objectives.

- **Chapter 1** will provide a state-of-play at the EU level regarding the implementation of the Berlin Declaration by looking at the evolution of the EU average compared to last year (2022-2023).

- **Chapter 2** will offer an analysis of the entire BDM exercise (2021-2023 results) at EU level in order to highlight the progress made and obstacles faced during this period. Additionally, this chapter will include a last section on the main takeaways provided by the Member States on the BDM and their priorities and expectations for the post-BDM era.

- **Chapter 3** will present a more detailed view of each of the 27 EU Member States' performance in implementing the commitments set out in the Berlin Declaration. Hence, it provides, for each country, its results at Policy Area, Policy Action, and KPI levels, in comparison to the EU average. Compared to the previous progress report's editions, it also includes an overview of the BDM monitoring results throughout the three years of its implementation.

- **Chapter 4** will conclude the report by summarising the main trends and progress made by EU Member States over the years.

- The **appendices** will provide more details on the objectives and methodology adopted in the frame of the BDM, as well as the database displaying the Member States' results, and an overview of the Policy Areas and Policy Actions model that is directly inspired by the text of the Berlin Declaration.

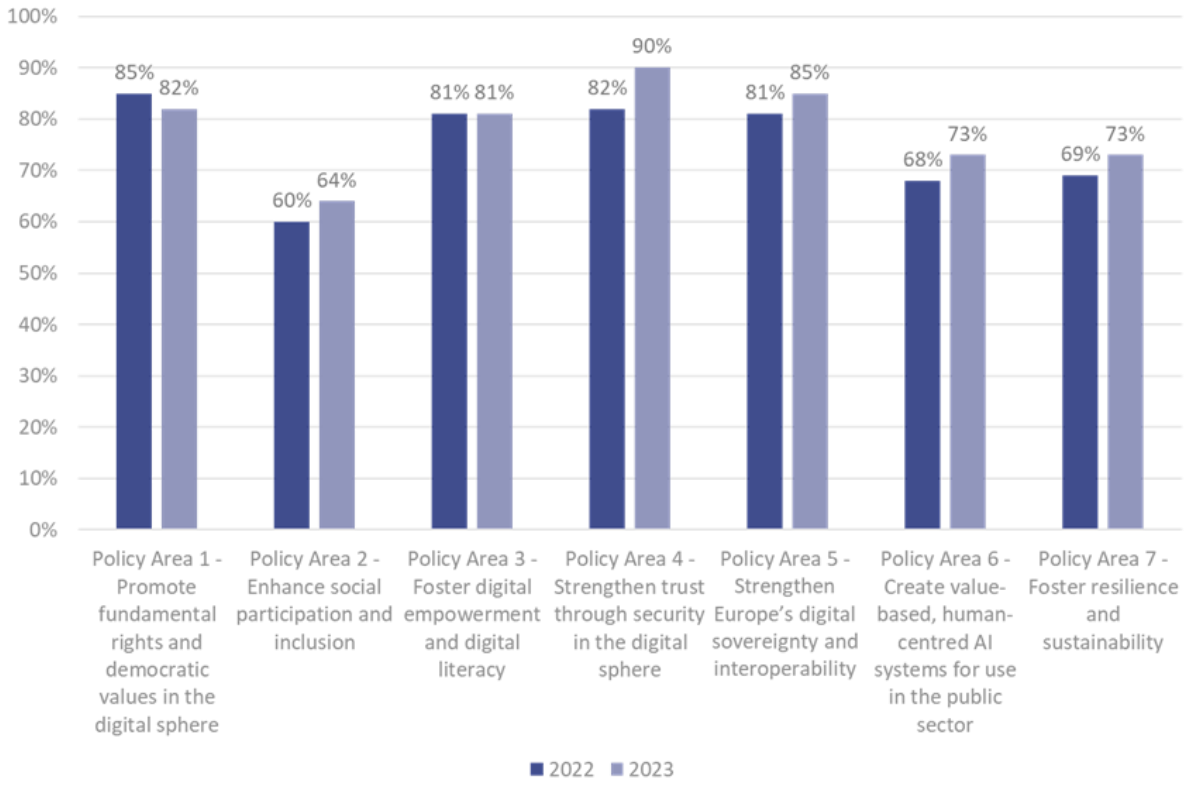
1. BDM results at EU level in 2023

Chapter 1 provides a high-level overview of the 2023 BDM results at the EU level across all Policy Areas and their related Policy Actions. Section 1.1 highlights key comparisons between this year's and those from the previous edition. Additionally, Section 1.2 summarises the main findings and trends that can be drawn at the EU level and provides forward-looking considerations for future initiatives.

1.1. Overview of the progress made at EU level when implementing the Berlin Declaration

As depicted below by Figure 1, there has been a positive evolution for most Policy Areas between 2022 and 2023. As a matter of fact, five Policy Areas have reported a higher score compared to the previous year, with results that increased between 4 and 8 percentage points. Nevertheless, Policy Area 1 experienced a slight decrease by 3 percentage points, whereas results linked to Policy Area 3 stagnated at 81%.

Figure 1 - Policy Areas' results over time at the EU level



Source: BDM results 2023

The following sections provide detailed descriptions for each Policy Area in accordance with the Berlin Declaration, highlighting both progress and success stories observed.

Policy Area 2 – Enhance social participation and inclusion

According to the Berlin Declaration, Policy Area 2 aims to ensure that all Europeans should be able to participate in and benefit fully from digital opportunities on an unconditional basis and without discrimination. Governments and public authorities at all levels should lead by example and provide digital services, which respond to and evolve with citizens' digital preferences. For this reason, the Declaration puts emphasis on the fact that most citizens use mobile devices for access to the internet, thus it is important to take into account the paradigm shift from "eGov" (electronic Government) to "mGov" (mobile Government) when encouraging inclusion or aiming to provide seamless, transparent, accessible, and user-friendly digital government services. Moreover, the public sector should encourage wider participation in policymaking by involving society in the design of public services through co-creation, experimentation, and collaboration. In this context, the provisions enshrined in the Web Accessibility Directive and the European Accessibility Act should guide public administrations across Europe in making sure that public services and information are fully digitally accessible by everyone, including people with disabilities and elderly people. Indeed, 17 Member States have increased their overall scores in this Policy Area, raising the EU average from 60% to 64%, equivalent to an increase of 4 percentage points. To do so, European countries have strengthened existing strategies and initiatives and/or established new ones.

Box 1 – Success stories (Policy Area 2 – 'Enhance social participation and inclusion')

Ireland's Digital Inclusion Roadmap

Ireland's National Digital Strategy: Harnessing Digital and Public Service Digital Strategy: Connecting Government 2030 ensure that services are delivered in an equitable, inclusive, and sustainable manner with better service to those who need assistance and opportunities to co-create government services. Following such commitments, the Digital Inclusion Roadmap was set up and it aims to make digital inclusion a core part of designing and delivering quality digital public services and to ask users of such services for their views when designing digital public services.

Malta's SMART HOME project

Malta's Foundation for Information Technology Accessibility (FITA) is embarking on a new venture in partnership with foreign universities to launch a SMART HOME project which will showcase AI products specifically designed to enhance the daily lives of people with disabilities. One of FITA's main remits is websites and apps auditing services to help public and private entities align their websites and apps to the Web Accessibility Directive. FITA is actively involved in other initiatives as well, including the creation of Braille books for children, outreach activities, and on-site training courses.

Policy Area 4 – Strengthen trust through security in the digital sphere

Policy Area 4 has the objective of guaranteeing that everyone should be able to navigate the digital world safely, authenticate and be digitally recognised within the EU conveniently. Moreover, in order to ensure a free, open and safe digital domain, and enhance social trust, fundamental rights and security should be integrated in all policies with a digital dimension. Additionally, all European citizens should have at their disposal widely accepted and secure electronic identification (eID) in line with European standards allowing them to securely access any digital public services. Emphasis must be placed on the fundamental rights aspect since increasing safety and security in the digital environment for all citizens has been recognised as one of the main principles enshrined in the European Declaration on Digital Rights and Principles signed in December 2022, which builds on the Berlin Declaration and other previous initiatives from EU Member States. In the course of the last year, 15 Member States increased their overall scores and 6 others, which had already achieved a score between 92% and 100% in 2022, remained unchanged. Such a result makes it the highest-scoring Policy Area for the year 2023, as well as the biggest increase compared to the previous year, underlying Member States' commitment in upholding the Policy Actions linked to Policy Area 4 through several initiatives at the national level.

Box 2 – Success stories (Policy Area 4 – 'Strengthen trust through security in the digital sphere')

Italy's Article 50-ter of the Digital Administration Code

Italy has established the new Article 50-ter of the Digital Administration Code, which created a national platform to support trust and identification for data exchanges between agencies. This national platform will support the co-creation and co-design of digital public services with a set of specific features related to the National Interoperability Framework based on Application Programme Interfaces (APIs), including an API Catalogue and Marketplace that will streamline the organisational and technical procedures required to exchange information in the public sector.

Slovakia's efforts in the use of notified eID

To promote the use of notified eID in both the public and private sectors, Slovakia has set out different actions by integrating the eIDAS node into the eGovernment services at the very central level, which allowed for every service to be authenticated with the Slovak eID and currently accepts authentication with all notified authentication means. Additionally, the country has actively tackled the problem of identity-matching by implementing a mechanism that leverages the identities of cross-border users to be fully on par with national ones, thus guaranteeing the principle of cross-border interoperability.

Policy Area 5 – Strengthen Europe's digital sovereignty and interoperability

Digital sovereignty is key in ensuring the ability of citizens and public administrations to make decisions and act in a self-determined manner in the digital world. As a consequence, Policy Area 5 highlights the importance for all underlying digital components of ICT solutions to meet requirements set at the EU level. It also emphasises the need for Europe to develop and deploy its own key digital capacities and ensure the availability of diverse and high-performing digital solutions. The European data strategy and the newly adopted Interoperable Europe Act set forth a strengthened interoperability framework for all Member States, aimed at reinforcing a single market for data and seamless cross-border interoperability of trans-European digital public services that will ensure Europe's global competitiveness and digital sovereignty. Taking a look at results for 2023, 12 Member States increased their scores linked to this Policy Area, leading to an overall result for Policy Area 4 of 85%, which represents an increase of 4 percentage points compared to 2022. Over the past year, countries have reinforced their efforts towards adopting agreements on requirements for technology providers and solutions in the public sector that are essential for digital sovereignty.

Box 3 – Success stories (Policy Area 5 – 'Strengthen Europe's digital sovereignty and interoperability')

The Dutch policy agenda on 'Digital open strategic autonomy'

In 2023, the Netherlands developed a policy agenda on 'Digital open strategic autonomy', in which it assessed national and European strengths, strategic dependencies, and vulnerabilities in digital technology. This has an impact not only in the economy and security, but also on the society as a whole, including human rights, public values, and democracy. In this agenda, the country made use of the 'digital technology stack' to dissect the digital domain in layers: from raw materials and chips to cloud and applications. This led to the designation of ten most crucial technologies for the Dutch economic resilience and open strategic autonomy in the digital domain.

Portugal's MOSAICO web portal

Launched in 2022, the Portuguese Common Model for Designing and Development of Digital Public Services (MOSAICO) consists of a set of essential principles for the evolution of public services, with the objective of promoting coherence and consistency of citizens' and businesses' UX in their relationship with the State. The MOSAICO web portal offers available detailed information, including the documentation of technical architectures about the common platforms for the public administration, e.g., digital identity (authentication, signature, certification of attributes), open data portal, interoperability platform, Catalogue of Entities and Services, electronic notifications system, and ePortugal (single digital gateway for public services), among others.

Policy Area 6 – Create value-based, human-centred AI systems for use in the public sector

Opportunities that derive from innovative technologies, including Artificial Intelligence (AI) systems, should be strengthen at the EU level to ensure that these comprise a secure and trustworthy technology design since they carry great potential for evidence-based policymaking and play a key role in providing user centric public services. As reiterated in the Charter of Fundamental Rights in the context of Artificial Intelligence and Digital Change and further confirmed by the Artificial Intelligence Act, Europe aims to promote a human-centred, responsible and common-good oriented development and use of AI and other novel technologies in the public sector to ensure that such applications are inclusive, help solve societal challenges, and do not reproduce harmful social or economic biases. Such a goal translates into initiatives carried out by Member States; in fact, 14 countries increased their scores in 2023, achieving an overall score of 83% for Policy Area 6.

Box 4 – Success stories (Policy Area 6 – 'Create value-based, human-centred AI systems for use in the public sector')

Finland's new law on the automation of the public administration

To support the work carried out by the Finnish Tax Administration, automation has been used extensively to improve efficiency. In May 2023, Finland introduced a new legislation that allows making decisions automatically in the public administration, including the Tax Administration. Automation allows simple decisions to be made instantly and will also save thousands of man-years of work every year. Every decision made automatically must mention that it was made automatically, it must contain a URL to the website where the public body must explain the principles of its automatic decision-making, the laws applied, as well as the sources and types of data used.

Germany's AI in Labour and Social Administration network

The German Federal Ministry of Labour and Social Affairs has established the AI in Labour and Social Administration network to responsibly implement AI applications in social and labour administration, with self-committed guidelines published in November 2022. The network's member agencies will apply and test the guidelines in actual AI projects, share experiences, and modify the guidelines accordingly. The goal is to ensure quality, safety, and human-centeredness in AI implementation.

Policy Area 7 – Foster resilience and sustainability

Policy Area 7 puts emphasis on people's physical and psychological well-being and on the environment. A sustainable digital transformation serves, in fact, European citizens and businesses on an individual level, as well as our society as a whole, while safeguarding the preservation of our natural foundations of life. For this reason, the digital transformation in Europe needs to be closely aligned with the United Nations' 2030 Agenda for Sustainable Development and the Paris Agreement, including the goals put forward in the European Green Deal. At the same time, Policy Area 4 wants to foster the exchange of crisis management data, in particular in the health sector, via different ways, such as the European Health Data Space, which wants to facilitate the exchange of data for the delivery of healthcare across the EU. Results linked to this Policy Area increased from 69% to 73% in 2023, highlighting a rise of 4 percentage points compared to the previous year. Indeed, 15 Member States improved their scores in this Policy Area by adopting different strategies and initiatives aimed at keeping our planet and people healthy and better preserving our natural resources.

Box 5 – Success stories (Policy Area 7 – 'Foster resilience and sustainability')

Austria's approach to digital sustainability

In Austria, several approaches have been taken to enhance the awareness of sustainability in the digital field, such as considering IT appliances as a part of the personal carbon footprint and fostering competences in sustainable project management. Through the Global Goals Check, individuals and businesses can quickly and easily assess how well their project aligns with the 2030 Agenda for Sustainable Development and how they can contribute to making the world fairer, more ecological, and sustainable.

Poland's initiatives to enhance digital health services

In the period 2020-2023, Poland conducted continuous efforts to promote the use of digital health services, in particular e-prescription, Patient Internet Account (IKP) and the development of the mojeIKP app. Specific actions have been taken, including online ads in social media and Google, a press campaign targeted to patients to encourage the use of the online patient account (Internetowe Konto Pacjenta), a PR campaign on cross-border e-prescription, emission of radio spots promoting the online patient account and the mojeIKP mobile app, as well as the launch of a new chatbot on www.pacjent.gov.pl informing patients about e-services in the health care system.

1.2. Overview of the challenges and issues encountered at the EU level when implementing the Berlin Declaration

Despite the good progress in several Policy Areas, the implementation of the Berlin Declaration within the EU Members States has encountered several challenges and issues.

This section delves into an overview of such challenges, focusing particularly on Policy Area 1 and Policy Area 3, which have shown a slight decrease or no progress throughout the past year. Notably, as illustrated in Figure 1 above, Policy Area 1 witnessed a slight decrease of 3 percentage points, whereas results related Policy Area 3 stagnated at 81%.

The following sections provide detailed descriptions for Policy Areas 1 and 4, depicting challenges and issues encountered by Member States.

Policy Area 1 – Promote fundamental rights and democratic values in the digital sphere

According to the Berlin Declaration, Policy Area 1 can be defined as a world where all human beings are equally entitled to be treated with respect and fairness, both in the analogue and in the digital sphere. Digital transformation should always be conducted with total respect for every person's fundamental rights, as laid out in the Charter of Fundamental Rights of the European Union, as well as shared fundamental and democratic values like respect for others, transparency, and privacy, among others. Linked to this Policy Area, Member States have implemented few new initiatives compared to last year. This can be explained by the high score obtained by EU Member States on Policy Area 1 in the previous years. Indeed, Policy Area 1 was the most progressing Policy Area in 2022, with a score of 85%. This may explain why no significant increase has been identified in 2023.

Among others, Member States should work further towards the inclusion and translation of fundamental rights into policies and technology procurement rules (Policy Action 1.1, which decreased from 75% to 73% in 2023). Furthermore, Member States should prioritise the establishment of ethical and technological expert councils (Policy Action 1.3, going from 83% to 78% in 2023).

Box 6 – Challenges encountered (Policy Area 1 – 'Promote fundamental rights and democratic values in the digital sphere')

From the information obtained through the BDM data collection, there are different explanatory factors for the lack of progress within Member States in implementing Policy Area 1.

Regarding the inclusion of fundamental rights principles in public sector innovation policies (Policy Action 1.1), multiple Member States, such as Belgium or Czechia, have **not yet developed specific guidelines or have expressed no need to adopt them**. In Belgium, for instance, no guidelines have been adopted when it comes to public sector innovation policies, but standard contractual clauses linked to fundamental rights (e.g., non-discrimination, inclusiveness/accessibility, prohibition of social dumping, respect for privacy and fair trade) are included in public procurement documents.

Concerning the establishment of ethical and technological expert councils (Policy Action 1.3), some European countries are **still in the process** of setting up such bodies. Cyprus, for example, is exploring the possibility of putting in place ethical and technological expert councils to provide advice to and foster debate among citizens, as they did for Cyprus' National Bioethics Committee.

Policy Area 3 – Foster digital empowerment and digital literacy

In addition to Policy Area 1, Policy Area 3 showed no progress over the last year, stagnating at 81%. Policy Area 3, as per the Berlin Declaration, refers to the ability for every citizen and business in Europe to be able to understand the risks and benefits of the digital world to allow them to navigate through it more easily and make reasoned decisions regarding their digital footprint. In this regard, European citizens should be encouraged to develop their digital skills, which should also include ethical, technical, legal, ecological, and social aspects. As for Policy Area 1, the EU average for Policy Area 3 was already high last year. In fact, with a score of 81%, Policy Area 3 had received the second-highest score in 2022, which may explain why no significant increase has been identified in 2023. Indeed, digital skills and literacy has been a key topic in the previous year, with the adoption of multiple EU initiatives such as the Skills and Talent package, boosting the attraction of talents in the EU, and simplifying procedures for foreigners. Last year, Member States also allocated a lot of effort in the preparation of the European Year of Skills. This stagnation could therefore possibly be explained by the Member States' desire to allocate more time, investments, and resources to other aspects of digitisation that have not made as much progress in previous years.

However, to better meet the objectives under this Policy Area, Member States could further work towards launching and promoting initiatives to ensure that the general public is equipped with access and a minimum understanding of digital technologies and digital skills (Policy Action 3.1). Indeed, while the EU average for Policy Action 3.1 slightly increased since last year, going from 61% to 62% in 2023, it still constitutes an area of progress, which is also supported by the targets of the Digital Decade Policy Programme, and more specifically the objective to reach 80% of the population aged 16-74 with at least basic digital skills by 2030.

Box 7 – Challenges encountered (Policy Area 3 – 'Foster digital empowerment and digital literacy')

While many Member States adopted initiatives to improve digital skills for public servants and in the educational sector, only 14 Member States reported the adoption of initiatives aiming at reinforcing basic digital skills and awareness for all citizens through the BDM data collection.

In its pursuit of this objective, **Czechia** highlighted the challenge and lesson learnt regarding the necessity to establish a strong collaboration between various stakeholders to improve the effectiveness of initiatives focusing on empowerment and digital literacy, as they are closely linked to social inclusion, accessibility, and minimisation of the digital gap.

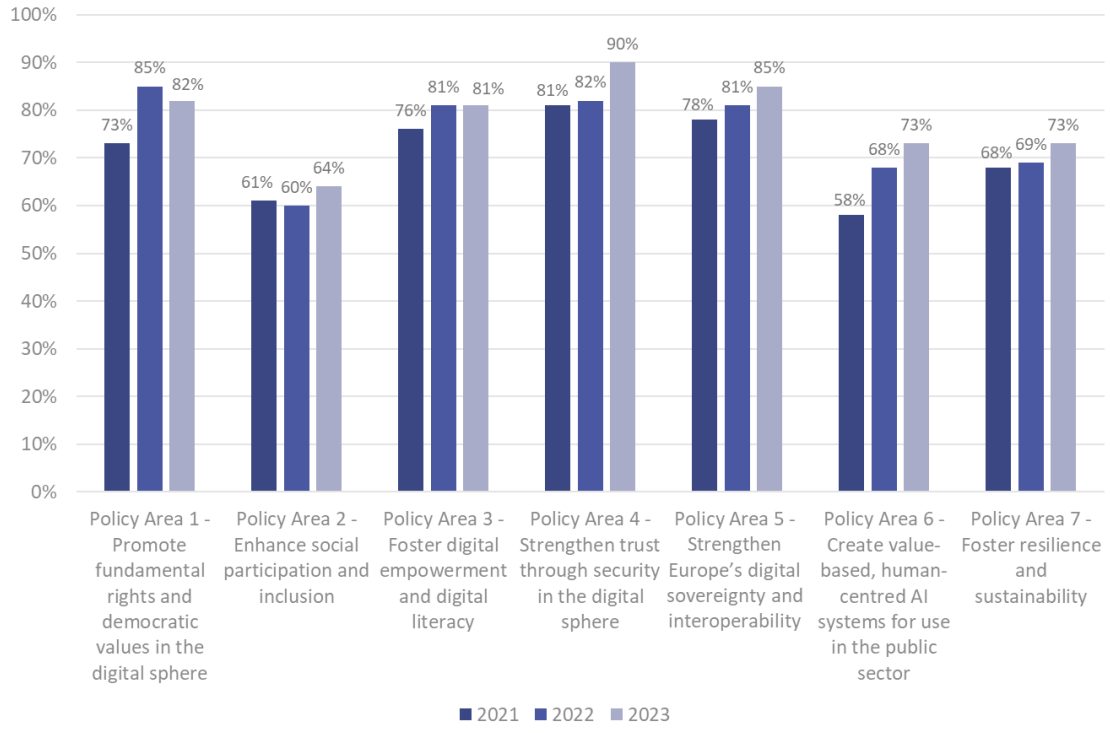
2. Three years of BDM: analysis of 2021-2023 results

Chapter 2 provides an overview of the overall BDM experience from its inception in 2021 to its conclusion in 2023. To facilitate this analysis, progress made, and the main obstacles faced for each Policy Area and related Policy Actions are analysed using clusters. In its final section, this chapter reports on feedback on the overall BDM exercise received from Member States through the annual survey launched in November 2023. It highlights their main takeaways from the monitoring experience with the Berlin Declaration and outlines their priorities for the future.

2.1. Overview of results evolution at the EU level in implementing the Berlin Declaration

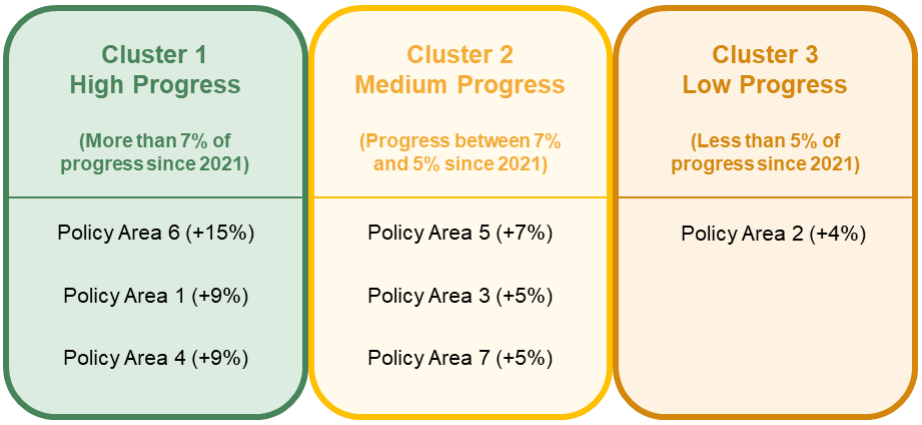
As illustrated below by Figure 2, all Policy Areas have shown positive development since the establishment of the monitoring mechanism in 2021, highlighting the strong commitment of Member States to the objectives set forth by the Berlin Declaration. The graph not only demonstrates overall progress, but also reveals varying paces of advancement across different Policy Areas during this period.

Figure 2 – Evolution of Member States' results on all Policy Areas between 2021 and 2023



Source: BDM results 2021 – 2023

To cluster the progress made by Member States in the seven Policy Areas, this report suggests grouping Policy Areas based on the percentage increase of progress in three potential clusters. By clustering them this way, it is possible to identify which ones have made the most and least progress, helping to prioritise further efforts and resources where they are most needed.



The following sections provide detailed descriptions for each Policy Area and related Policy Actions divided by cluster. In analysing them, both progress made, and challenges encountered have been included in the explanatory factors to shed light on the results evolution.

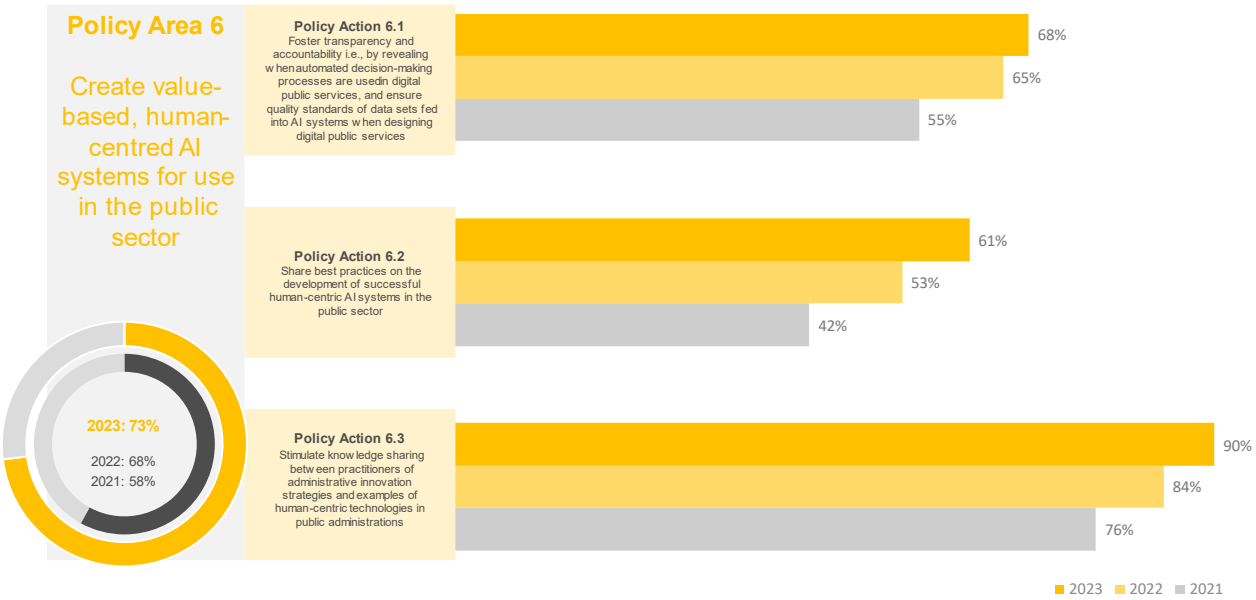
2.1.1. Cluster 1 – High Progress

Over the three years of BDM analysis, three Policy Areas have managed to achieve a high progress, meaning that they have increased their overall results by more than 7% between 2021 and 2023. Such Policy Areas include, by order of percentage points gained over time, Policy Areas 6, 1, and 4. The three Policy Areas have shown a strong commitment by all Member States in meeting the objectives foreseen by the Berlin Declaration, which translated into adopting national strategies, policies, and action plans, as well as boosting knowledge sharing and security measures in the digital remit.

Policy Area 6 – Create value-based, human-centred AI systems for use in the public sector

Policy Area 6 represents the Policy Area that has advanced the most, increasing from 58% in 2021 to 73% in 2023, registering an overall increase of 15 percentage points in three years. Figure 3 below shows the overall progression for Policy Area 6 and its related Policy Actions across the three years of BDM analysis.

Figure 3 – Evolution of results linked to Policy Area 6



Source: BDM results 2021 – 2023

The following key trends have been identified in relation to Policy Area 6:

Policy Area	**Progress since 2021**	**Explanatory factors**
	• Increase of 15 percentage points at EU level over the three years. • Highest score among all Policy Areas at EU average.	Member States have progressively introduced regulatory measures for the uptake of emerging technologies and human-centred digital solutions at the national level, putting emphasis on knowledge sharing and fostering transparency and accountability

Policy Actions	Evolution in 2022	Evolution in 2023	**Total evolution since 2021**
Policy Action 6.1: Foster transparency and accountability i.e., by revealing when automated decision-making processes are used in digital public services and ensure quality standards of data sets fed into AI systems when designing digital public services (e.g., by quality seals for data sets).	+10%	+3%	**+13%**
Policy Action 6.2: Engage in strategic projects with the aim of increasing awareness of the relevance of a value-based digital transformation.	+11%	+8%	**+19%**
Policy Action 6.3: Encourage the establishment of ethical and technological expert councils to provide advice to and foster debate among citizens.	+8%	+6%	**+14%**

Results linked to the Policy Actions under Policy Area 6 underline the commitments Member States have taken towards establishing concrete actions to meet such objectives. All Policy Actions, in fact, advanced at a continuous and fast pace, making this Policy Area the one that has increased the most since 2021.

- **Policy Action 6.1**: The increase in results can be explained by further actions undertaken by Member States in order to enhance transparency with regard to automated decision-making process used in digital public services, as well as the use of quality standards of data to feed into AI systems when designing such services. However, further areas for improvement still exist since, despite the overall good evolution, results stagnated at 68%.
- **Policy Action 6.2**: The huge increase of 19% from 2021 to 2023 is proof that countries have consistently shared best practices on the development of successful human-centric AI systems in the public sector that can be used by all public administrations at European, national, and sub-national levels. Nevertheless, further actions may be taken in order to keep increasing such a score even beyond the application of the Berlin Declaration since results finally achieved just 61%.
- **Policy Action 6.3:** Boosting knowledge sharing on public sector innovation strategies and human-centric technologies helped Member States to learn from one another and improve the quality of work of their public administrations. The final result of 90%, in fact, confirms the importance countries have dedicated to cooperation.

Policy Area 1 – Promote fundamental rights and democratic values in the digital sphere

Policy As Figure 4 below highlights, Policy Area 1 showed good progress over the three years of BDM analysis, managing to rise from 73% to 82%, totalling an overall increase of 9 percentage points.

Figure 4 - Evolution of results linked to Policy Area 1

Source: BDM results 2021 – 2023

The following key trends have been identified in relation to Policy Area 1:

Policy Area	**Progress since 2021**	**Explanatory factors**
	• Increase of 9 percentage points at EU level over the three years. • Second-highest score among all Policy Areas at EU average. • Slight decrease between 2022 and 2023 (-3%).	Member States have increasingly created platforms and portals to provide more information and foster debate on fundamental rights and how these rights are linked in the digital sphere.

Policy Actions	Evolution in 2022	Evolution in 2023	**Total evolution since 2021**
Policy Action 1.1: Translate abstract fundamental rights regulations into tangible policies and strive to set an example by incorporating fundamental rights into public sector innovation policies and technology procurement rules.	+4%	-2%	**+2%**
Policy Action 1.2: Engage in strategic projects with the aim of increasing awareness of the relevance of a value-based digital transformation.	+19%	+0%	**+19%**
Policy Action 1.3: Encourage the establishment of ethical and technological expert councils to provide advice to and foster debate among citizens.	+13%	-5%	**+8%**

Overall, the increased scores for all Policy Actions under Policy Area 1 illustrate that most Member States have improved their implementation of these Actions and considered this Area as a key priority. However, it seems that this priority shifted in 2023, with more attention given to other Policy Areas needing more improvements since results slightly decreased.

- **Policy Action 1.1**: The slower results evolution can be explained by the lack of explicit mention of fundamental rights in innovation policies adopted by Member States, either because the topic is already part of overarching national strategies or within other documents, such as procurements guidelines.
- **Policy Action 1.2**: While projects on awareness around value-based digital transformation have been implemented in the last three years, the quick increase in 2022 can be explained by a change of KPIs compared to 2021, leading to a computation change (cf. Annexes).
- **Policy Action 1.3**: The evolution of this Action's results can be explained by the increasing but slow establishment of ethical and technical experts' councils by Member States and, for some countries, the change of priorities of national governments.

Policy Area 4 – Trust through security in the digital sphere

Policy Area 4 managed to register significant progress over the three years of BDM analysis. In fact, as per Figure 5, the overall results for this Policy Area showcased an increase of 11 percentage points from 2021 to 2023.

Figure 5 - Evolution of results linked to Policy Area 4

Source: BDM results 2021 – 2023

The following key trends have been identified in relation to Policy Area 4:

Policy Area	Progress since 2021	Explanatory factors
	• Increase of 9 percentage points at EU level over the three years • Slightly increase between 2021 and 2022, but high increase between 2022 and 2023 (+8%)	Member States have set up several strategies and action plans to reinforce their security measures in the digital remit, including enhancing ICT security requirements and promoting the use of the Once-Only principle.

Policy Actions	Evolution in 2022	Evolution in 2023	Total evolution since 2021
Policy Action 4.1: Promote the rollout and use of notified eID means and introduce incentives for the private sector to use European trustworthy and notified eID.	-3%	+16%	**+13%**
Policy Action 4.2: Promote responsible and legally compliant re-use of data and the Once-Only Principle in line with the Tallinn Declaration and encourage new concepts such as personal data management based on user consent.	+5%	+5%	**+10%**
Policy Action 4.3: Work with the European Commission to jointly agree on concrete deadlines and criteria such as a demand driven approach for providing further suitable public services online for EU cross-border use.	+1%	+4%	**+5%**

The evolution of results linked to the Policy Actions under Policy Area 4 showcase a good trend, with final scores ranging from 80% to 100%, highlighting the importance that both trust and security in the digital sphere have acquired over time, making Member States enhance their efforts to fulfil the objectives foreseen by this Policy Action.

- **Policy Action 4.1:** The evolution of results shows that Member States have progressively notified the European Commission of the national eID scheme. However, notwithstanding the good results for this Policy Action, countries still are facing issues in promoting incentives for private sector bodies to use European trustworthy and notified eID. To solve this, further national strategies are currently being defined and some Member States are holding discussions to promote collaboration between the public and private sectors.
- **Policy Action 4.2**: National strategies/policies outlining measures supporting the re-use of open data by the public sector and the existence of an Open Data portal at the national level led Member States to fulfil their commitments linked to this Policy Area. The progress of results is also explained by the establishment of awareness raising initiatives on new concepts, including personal data management based on user consent.
- **Policy Action 4.3:** All countries seem to have achieved the maximum level of security and privacy defined for public authorities. As a matter of fact, even though results were already high in 2021, this Policy Area managed to reach 100% in 2023.

2.1.2. Cluster 2 – Medium Progress

While three Policy Areas reported a high progress by increasing their overall results by more than 7% in just three years, other three ones outlined a medium progress by registering a progress between 5% and 7% since 2021. It is the case for Policy Area 5, which managed to increase by 7%, and Policy Areas 3 and 7, which both increased by 5% from 2021 to 2023. These three Policy Areas have proven to have taken different steps forward in meeting the objectives set out by the Berlin Declaration, especially by putting further emphasis on trainings and cooperation, as well as completing the alignment with relevant EU legislation.

Policy Area 5 – Digital sovereignty and interoperability

As portrayed in Figure 6, Policy Area 5 showed a good evolution over the three years of BDM analysis, reaching an increase of 7 percentage points, which makes it the Policy Area in the medium progress cluster that advanced the most.

Figure 6 - Evolution of results linked to Policy Area 5

Source: BDM results 2021 – 2023

The following key trends have been identified in relation to Policy Area 5:

Policy Area	Progress since 2021	Explanatory factors
	• Increase of 7 percentage points at EU level over the three years. • Highest score registered in the medium progress cluster.	Member States have consistently introduced strategies and initiatives, including training, to increase their citizens' and businesses' digital skills and competencies. Results possibly stagnated between 2022 and 2023 due to the fact that this Policy Area had already achieved good results, especially linked to Policy Action 3.3, in the previous year.

Policy Actions	Evolution in 2022	Evolution in 2023	Total evolution since 2021
Policy Action 5.1: Jointly work towards agreements on requirements for technology providers and solutions in the public sector that are essential for digital sovereignty.	+10%	-3%	**+7%**
Policy Action 5.2: Establish common standards and modular architectures.	-1%	+7%	**+6%**
Policy Action 5.3: Work with the European Commission to jointly agree on concrete deadlines and criteria such as a demand driven approach for providing further suitable public services online for EU cross-border use.	+0%	+6%	**+6%**

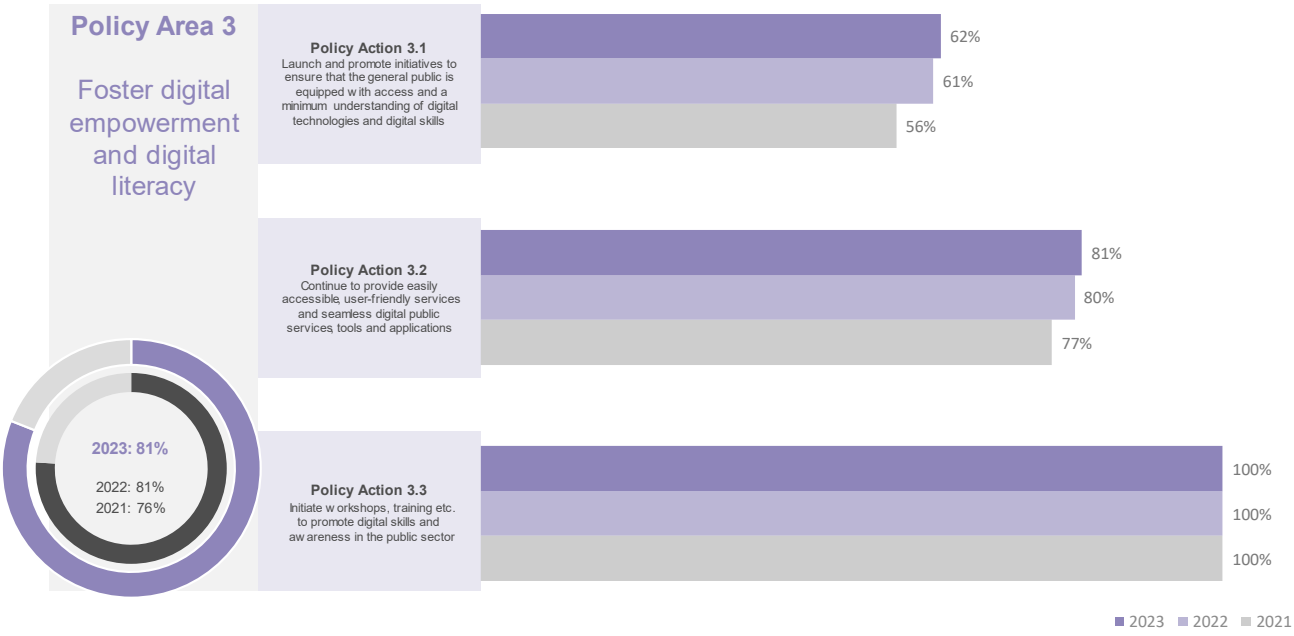
The progress of results linked to Policy Action 5 underlines a strong commitment from Member States to reinforce Europe's digital sovereignty and interoperability, both at the national and cross-border levels. Even though some areas for improvement persists, it is important to notice that all Policy Areas registered an improvement between 2021 and 2023.

- **Policy Action 5.1:** The progress on this Policy Action highlights that almost all Member States participate to at least one EU action that is essential for digital sovereignty. Further efforts may be done in order for all countries to be involved in initiatives at the EU level.
- **Policy Action 5.2**: The evolution of results linked to this Policy Action can be explained by the fact that Member States have progressively made use of common standards, modular architecture and considered open source software in the development and deployment of cross-border digital solutions. However, such technologies may be further explored to increase the results linked to this Policy Action beyond the application of the Berlin Declaration.
- **Policy Action 5.3:** Almost all Member States have fully met the requirements set by the Single Digital Gateway Regulation on the online availability and accessibility of administrative procedures.

Policy Area 3 – Foster digital empowerment and digital literacy

Between 2021 and 2023, the overall score of Policy Area 3 increased by 5 percentage points. Figure 7 below shows the evolution linked to this Policy Area and its Policy Actions.

Figure 7 - Evolution of results linked to Policy Area 3



Source: BDM results 2021 – 2023

The following key trends have been identified in relation to Policy Area 3:

Policy Area	Progress since 2021	Explanatory factors
	• Increase of 5 percentage points at EU level over the three years. • Stagnation of results between 2022 and 2023 (81%).	Member States have consistently introduced strategies and initiatives, including training, to increase their citizens' and businesses' digital skills and competencies. Results possibly stagnated between 2022 and 2023 due to the fact that this Policy Area had already achieved good results, especially linked to Policy Action 3.3, in the previous year.

Policy Actions	Evolution in 2022	Evolution in 2023	Total evolution since 2021
Policy Action 3.1: Launch and promote initiatives to ensure that the general public is equipped with access and a minimum understanding of digital technologies and digital skills.	+5%	+1%	**+6%**
Policy Action 3.2: Continue to provide easily accessible, user-friendly services and seamless digital public services, tools and applications.	+3%	+1%	**+4%**
Policy Action 3.3: Initiate workshops, training etc. in order to promote digital skills and awareness in the public sector.	+0%	+0%	**+0%**

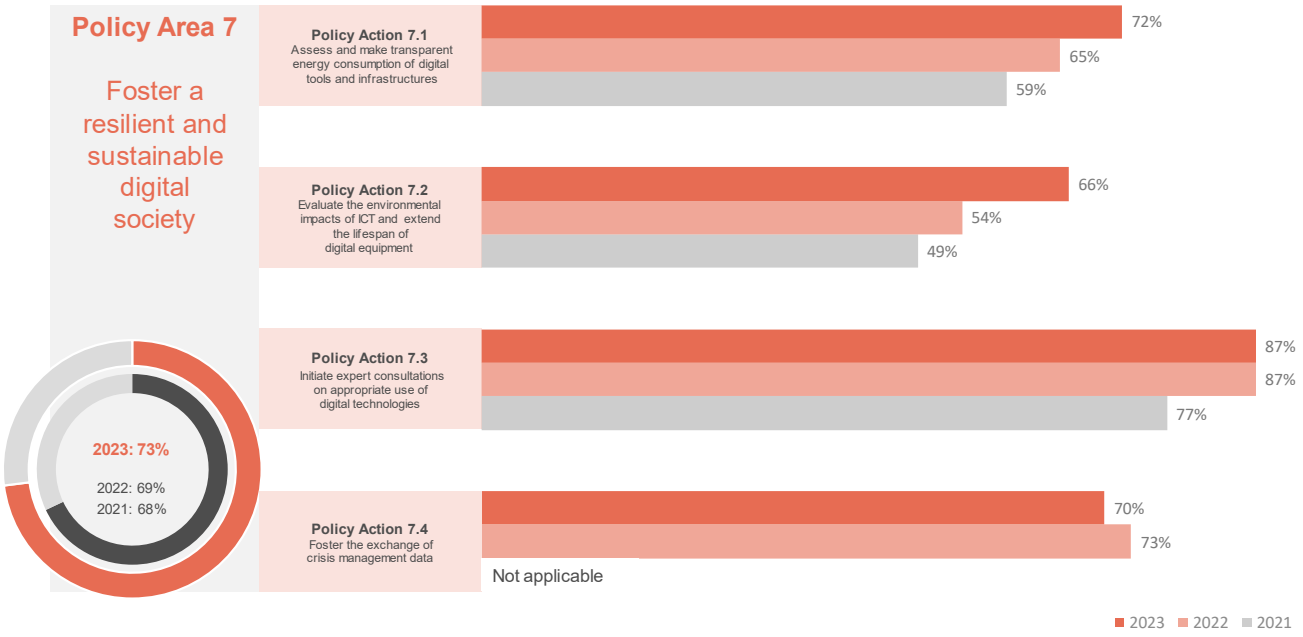
Over the three years of BDM analysis, Member States reached good results linked to this Policy Area, highlighting the key role that digital literacy has acquired over time, in line with the EU priorities. Nonetheless, Policy Actions advanced at a different pace, consequently raising some areas for improvement, especially linked to Policy Area 3.1.

- **Policy Action 3.1**: The results evolution showed an increasing effort made by European countries in investing in digital skills. However, it appears that some Member States still need to launch/finalise the launch of initiatives to promote the roll-out of digital skills for their citizens.
- **Policy Action 3.2**: Progress made on this Policy Action over the three years of BDM analysis shows that Member States have increasingly sought to provide digital public services that are user-centric and that take the relevant EIF thematic areas into account.
- **Policy Action 3.3:** All Member States appeared to have already put in place since 2021 different initiatives to promote digital skills and awareness in the public sector. To confirm this, the constant score of 100% linked to this Policy Action is the highest result achieved by a Policy Action across all Policy Areas.

Policy Area 7 – Foster a resilient and sustainable digital society

Similarly to Policy Area 3, Policy Area 7 increased its overall result by 5 percentage points in the three years of BDM analysis. Figure 8 presents the evolution of this Policy Area and its Policy Actions. It is important to nice that compared to all other Policy Areas, this one comprises four and not three Policy Actions.

Figure 8 - Evolution of results linked to Policy Area 7



Source: BDM results 2021 – 2023

The following key trends have been identified in relation to Policy Area 7:

Policy Area	Progress since 2021	Explanatory factors
	• Increase of 5 percentage points at EU level over the three years. • A fourth Policy Action was included in 2022	Member States have put in place several actions to preserve our natural foundations of life in line with the European Green Deal and use digital technologies to enhance the sustainability of our health systems.

Policy Actions	Evolution in 2022	Evolution in 2023	Total evolution since 2021
Policy Action 7.1: Consider how to assess and make transparent Translate energy sources and consumption of digital tools and infrastructures as well as ways to improve their efficiency.	+6%	+7%	**+13%**
Policy Action 7.2: Evaluate the environmental impacts of ICT using a multicriteria lifecycle analysis and establish a strategy to extend the lifespan of digital equipment and promote the eco-design of ICT products to improve circular product cycles.	+5%	+12%	**+17%**
Policy Action 7.3: Initiate expert consultations to provide guidelines on healthy and appropriate use of digital technologies and work-life balance to prevent adverse impact on mental or physical human health development.	+10%	+0%	**+10%**
Policy Action 7.4: Foster the exchange of crisis management data, in particular in the health sector, e.g. via the European Health Data Space.	N/A	-3%	**-3%**

Between 2021 and 2023, Member States achieved quite good results linked to this Policy Area, confirming the key role that both the environment and health play in the EU's key strategic priorities. However, margin for further improvement still exists for all Policy Actions, and countries may consider further deploying initiatives also beyond the application of the Berlin Declaration.

- **Policy Action 7.1**: The results evolution showed an increasing effort made by European countries in putting forward actions at national or sub-national level for improving energy efficiency and optimise local consumption of digital tools and infrastructures. Nevertheless, this work is ongoing and further initiatives may be established in the future.
- **Policy Action 7.2**: Even though this Policy Action registered good progress, more efforts should be dedicated to the eco-design of digital public services, as well as evaluating the energy consumption and greenhouse gases (GHG) emissions resulting from ICT activities in the public sector and extending the lifespan of digital equipment used by public administrations.
- **Policy Action 7.3:** The majority of Member States seems to have put in place guidelines on healthy and appropriate use of digital technologies aimed at guaranteeing a good work-life balance and provide mental and physical support.
- **Policy Action 7.**4: Included later in 2022, the evolution linked to this Policy Action saw a minor decrease from 2022 to 2023. For this reason, Member States are invited to further actively exchange crisis management data among them in order to keep working on the objective foreseen by this Policy Action.

2.1.2. Cluster 3 – Low Progress

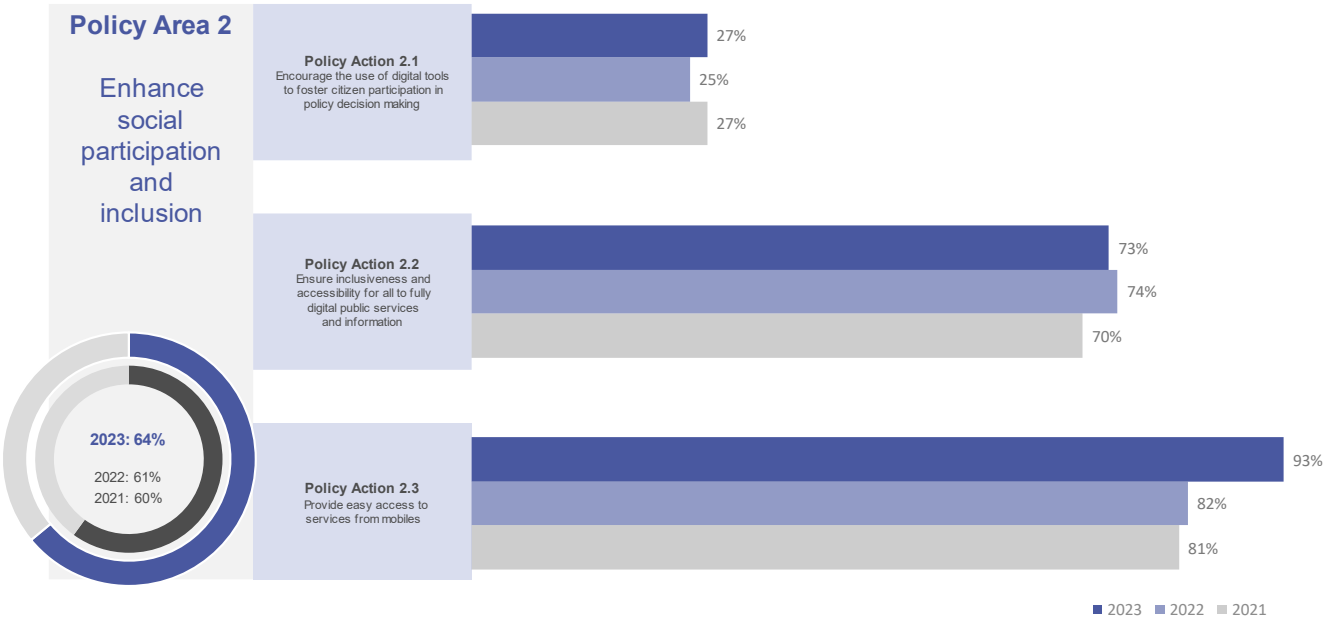
Compared to all other Policy Areas, Policy Area 2 is the one that advanced at a slower pace by registering an increase of just 4% between 2021 and 2023. In particular, the minimal progress reported on Policy Action 2.1 hindered the overall results for this Policy Action.

Policy Area 2 – Enhance social participation and inclusion

Figure 9 displays the evolution of Policy Area 2 and its Policy Actions, highlighting an increase of 4 percentage points in the three years of BDM analysis.

Source: BDM results 2021 – 2023

Figure 9 - Evolution of results linked to Policy Area 2



Source: BDM results 2021 – 2023

The following key trends have been identified in relation to Policy Area 2:

Policy Area	**Progress since 2021**	**Explanatory factors**
	• Increase of 4 percentage points at EU level over the three year. • Lowest progress among all Policy Areas at EU average. • Slight decrease between 2022 and 2023 (-1%).	Member States have consistently fostered the participation of citizens in policymaking processes, as well as increased their efforts to ensure that public services and information are fully digitally accessible to everyone, including people with disabilities and elderly people.

Policy Actions	Evolution in 2022	Evolution in 2023	**Total evolution since 2021**
Policy Action 2.1: Put co-creation and collaboration with citizens into practice and encourage the use of digital tools to foster participation of citizens in political decision-making.	-2%	+2%	**+0%**
Policy Action 2.2: Ensure that the digital transformation is inclusive of and accessible for persons with disabilities and elderly persons and increase our efforts to make public services and information fully digitally accessible in accordance with the Web Accessibility Directive and the European Accessibility Act.	+4%	-1%	**+3%**

Policy Actions	Evolution in 2022	Evolution in 2023	**Total evolution since 2021**
Policy Action 2.3: Provide easy access to services for the mobile channel by enabling citizens to use their mobile devices to carry out digital public services and by cooperating at EU level in establishing necessary elements for ensuring mobile device interoperability across borders.	+1%	+11%	**+12%**

Even though the overall result for this Policy Area show the lowest progress among all seven Policy Areas, it is possible to see that Policy Actions advanced at a difference pace, with Policy Action 2.3 reaching one of the highest results for a Policy Action at EU average.

- **Policy Action 2.1**: The low results evolution can be explained by the limited amount of data available linked to online information on citizens' ability to participate in policymaking processes, and how users can enrol in activities to improve the design and delivery of services.
- **Policy Action 2.2**: The stagnation of results around 70-74% at the EU level linked to this Policy Action underlines that Member States still need to complete the full alignment with the European accessibility standards foreseen by the Directive on the accessibility of the websites and mobile applications of public sector bodies.
- **Policy Action 2.3**: The continuous progress made on this Policy Action highlights Member States' commitment to cooperate between them to ensure cross-border access to services via mobile channel, and the establishment of national strategies to enable citizens to user their mobile devices to access digital public services.

2.2. Main takeaways from the BDM exercise

In this last edition of the BDM annual survey, Member States were asked to answer some additional questions in order to collect feedback on the overall BDM exercise since its inception in 2021. Out of the 27 participating countries, 21 provided insights, pointing out lessons learned, and challenges encountered, as well as priorities and expectations identified for the future beyond the mere application of the Berlin Declaration.

Overall, Member States saw the implementation of the seven Principles of the Berlin Declaration as a value-adding but challenging experience which, in most cases, led to concrete actions in different areas within the digital remit. As a matter of fact, most countries seem to agree that not only did the BDM provide key guidelines, but it also established a framework of reference for activities to be deployed at the national level, helping Member States ensure that the seven Principles are incorporated in their national and cross-border strategies. Additionally, the monitoring exercise supported countries in aligning their digital transformation objectives with European fundamental rights and values, focusing particularly on ethical considerations linked to digital policies. Nevertheless, some Member States noted a discrepancy among Principles, with some being easier to monitor compared to others. Some countries also reported having encountered difficulties in implementing some Principles due to the lack of a clear roadmap for actions tailored to possible country-specific needs, highlighting the necessity for all Member States to be equipped with ICT experts that should be aware of the national technological context.

Since the adoption of the Berlin Declaration, several topics have increasingly gained relevance in the digital sphere. These include data-driven resilience, sustainability aspects, and the use of AI in strategic decision-making, among others. As a consequence, most Member States have set key priorities for the future that are connected to such matters, including fostering digital skills to promote digital inclusion, enhancing security both online and offline, as well as investing in digital infrastructures in urban and rural areas alike. In this context, people should be put at the centre of all strategies to co-create digital public services in a user-centric manner that takes into account citizens' and businesses' needs while safeguarding the environment.

When it comes to envisaging the future post-Berlin Declaration, most Member States appeared open to welcome a possible new declaration. This should consider how the EU legislative landscape has evolved over the past years in light of new initiatives, including the Interoperable Europe Act and the Digital Decade Policy Programme. Some countries also believed that a new declaration may help the EU reinforce its position in the international arena and support the integration of innovative technologies and solutions within countries' national priorities. Taking these elements into consideration, a new declaration related to digital society, not only continuing but also expanding the work produced by the Berlin one, may be adopted in the future.

3. BDM progress at country level – Individual country reports

After looking closely at the results at the EU level, Chapter 3 focuses on a deeper level of granularity by presenting the individual performance of the 27 EU Member States in implementing the 22 commitments set out in the Berlin Declaration between 2021 and 2023.

Therefore, a detailed view of the results of each country is provided through dedicated four-pagers. The data displayed in these pages are again stemming from the 2023 data collection and were validated by each Member State through a dedicated process. More specifically, National Contact Points were provided with their country results by email and had the opportunity to express any doubts or enquiries before their publication. Hence, such four-pagers are structured as follows:

- The first page provides an overview of Member States' 2022 vs. 2023 results for the 7 Policy Areas;
- The second and third pages focus on their progress between 2021 and 2023 for the 22 Policy Actions (i.e., the 22 statements that the Member States have committed to achieving by 2024); and
- The fourth page presents a selection of qualitative stories on different Policy Areas to display good practices and relevant initiatives currently in place/under development[9].

More information on the BDM model and country results are available respectively in 'Appendix II – BDM Databases' and 'Appendix III – BDM Policy Areas and Policy Actions'.

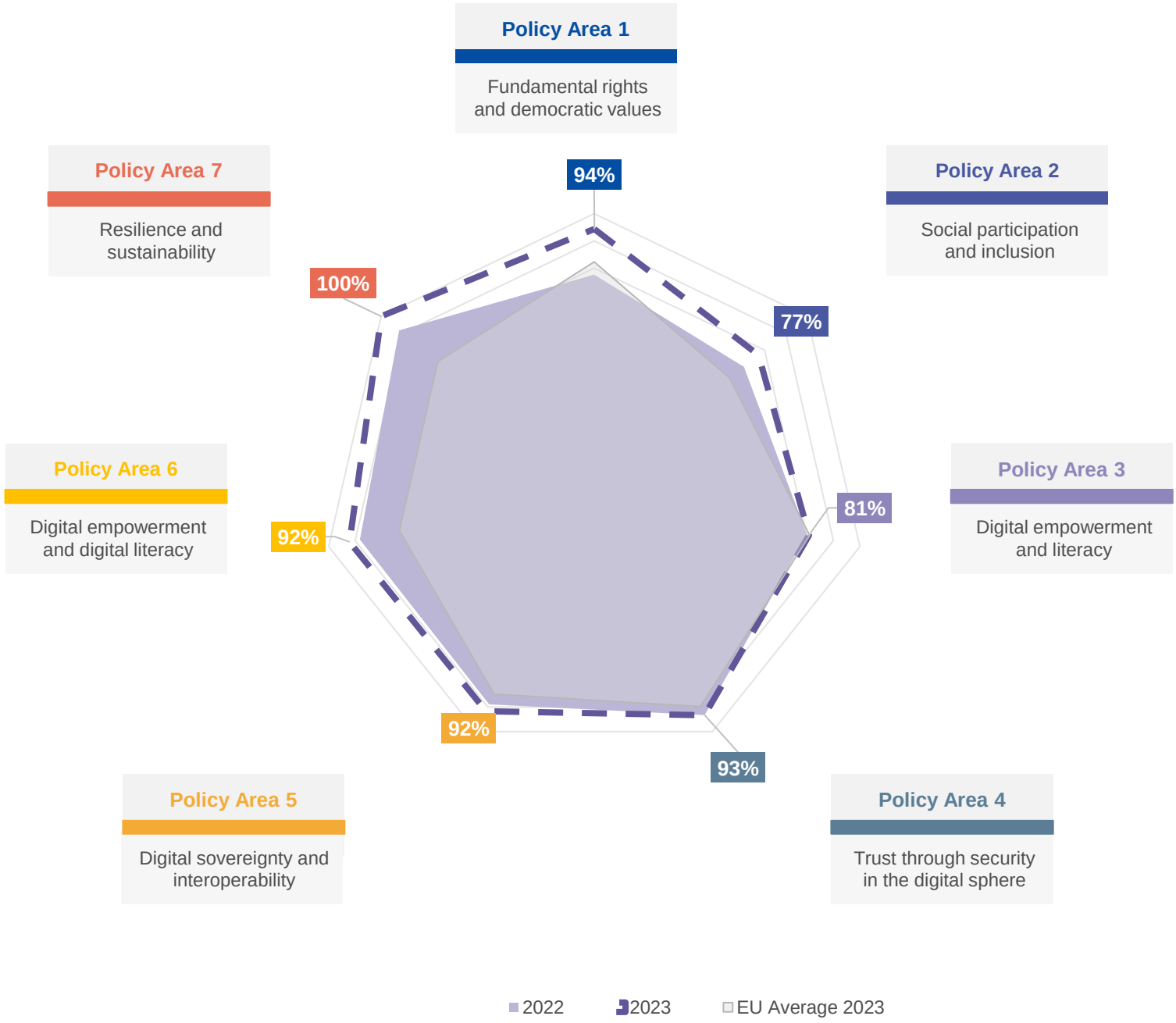
Please also note that some changes have been made to the framework and related KPIs, as specified in the Introduction. These modifications are detailed in Appendix 1.5 and might have led to more or less significant changes (such as drops) in countries scores compared to the previous years. Particular attention should be brought to KPIs 21 and 27, which are based on secondary data sources, and which have been removed from the BDM framework.

[9] For countries for which such examples were not available, the qualitative stories shared in the fourth page have been selected from the 2024 edition of the Digital Public Administration factsheets.

AUSTRIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Austria | Policy Areas level of implementation



Overall Austria's scores in the Berlin Declaration monitoring mechanism 2023 have increased compared to those of 2022, except for Policy Area 4, which has remained the same.

The most significant increases for Austria compared to 2022 have been recorded for Policy Area 1, with a progress of 16 percentage points, as well as Policy Area 7, which received an increase of 8 percentage points. In addition, Policy Area 2 has increased by 7 percentage points. Policy Area 5 has increased by 3 percentage points, and Policy Areas 6 increased by 4 percentage points. Finally, Policy Area 3 has seen a minimal increase of 1 percentage point.

In addition, Austria scores at the EU average or above in all seven Policy Areas. Austria scores 94% in Policy Area 1 compared to an EU average of 82%, 77% in Policy Area 2 compared to 64%, 81% in Policy Area 3 matching the EU average, 93% in Policy Area 4 compared to 90%, 92% in Policy Area 5 compared to 85%, 92% in Policy Area 6 compared to 73%, and a maximal score of 100% in Policy Area 7 compared to 73% at EU average.

2023 BDM Results for Austria | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

94%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

83% [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

100% [78%]

Policy Area 2
Social participation and inclusion

77%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

32% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

100% [73%]

2.3 | Provide easy access to services from mobiles

100% [91%]

Policy Area 3
Digital empowerment and literacy

81%

3.1 | Launch and promote initiatives for citizens' digital literacy

63% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

80% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100% [100%]

Policy Area 4
Trust through security in the digital sphere

93%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100% [80%]

4.2 | Promote responsible and legally compliant re-use of data

80% [90%]

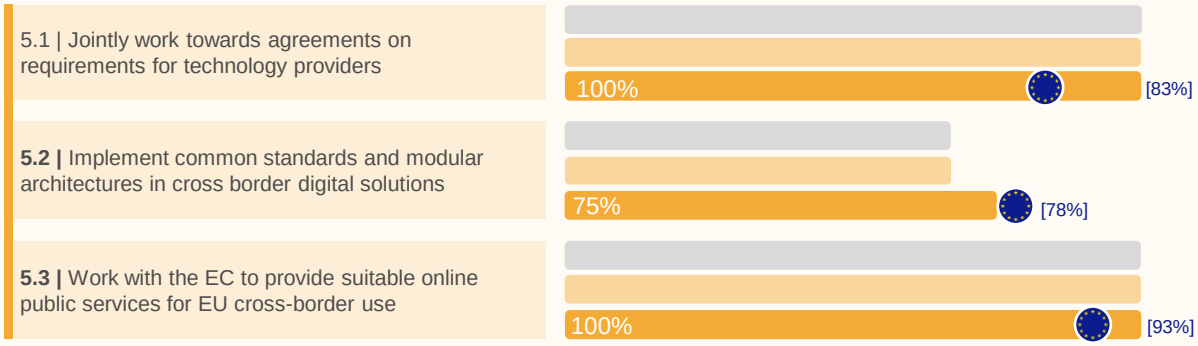
4.3 | Consider ways to foster agreement on ICT security requirements

100% [100%]

2023 BDM Results for Austria | Policy Actions level of implementation

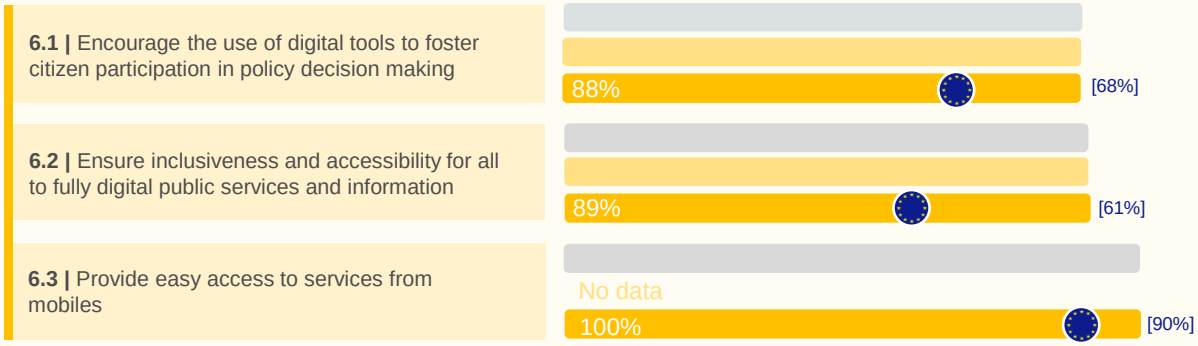
Policy Area 5
Digital sovereignty and interoperability

92%



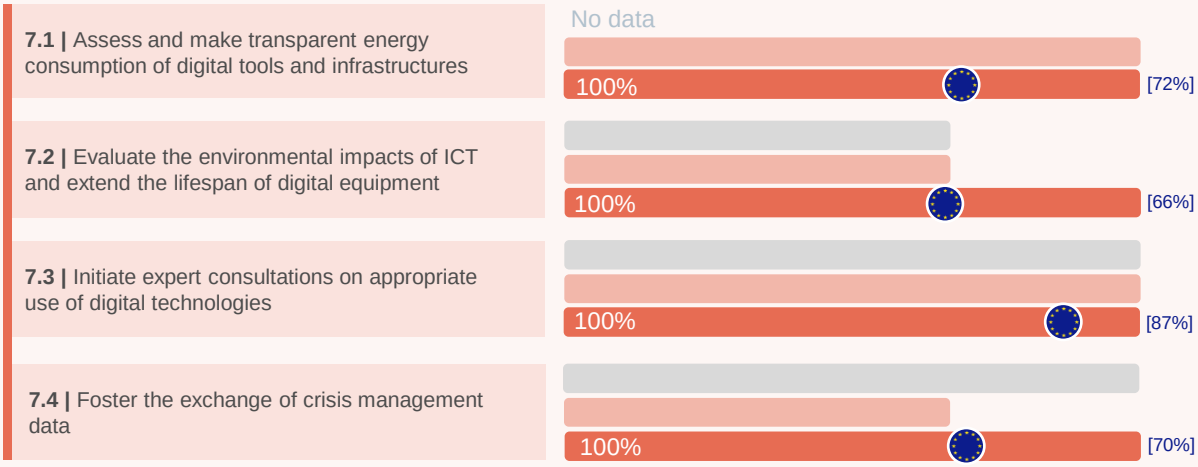
Policy Area 6
Digital empowerment and digital literacy

92%



Policy Area 7
Resilience and sustainability

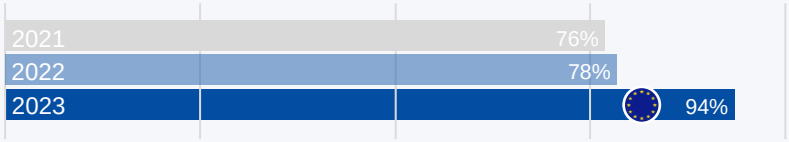
100%



Qualitative stories from Austria

Policy Area 1

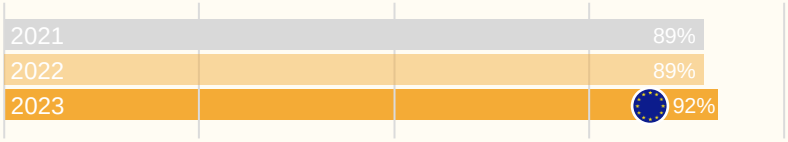
Promote fundamental rights and democratic values in the digital sphere



The new Austrian eGovernment Strategy has been released in 2023, putting citizens at its heart by wanting to offer digital services that are simple, accessible, easy to find, mobile-compatible, intuitive and multilingual. The overall vision is, in fact, based on a human-centric approach that promotes the concept of "Digital Humanism", which aims to thoroughly analyse and scrutinise digitalisation and submits concepts for a re-orientation of it according to human rights and democratic principles. TU Wien has already made a crucial contribution last year in this regard by publishing a manifesto on Digital Humanism, as well as organising several workshops on this topic.

Policy Area 5

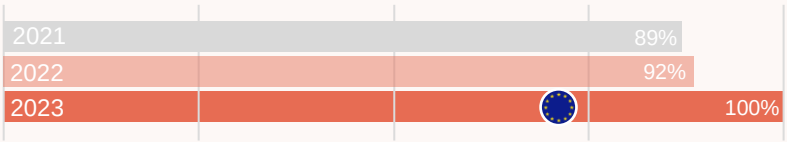
Strengthen Europe's digital sovereignty and interoperability



The overall vision put forward in the eGovernment Strategy promotes digital sovereignty. In this context, the Austrian legal framework formulates the basic principles of digital government services centrally, while supporting and facilitating continuous further development linked to the digitalisation process. In August 2022, the Secure Information Technology Center (A-SIT) published a study on digital sovereignty, highlighting guidelines and good practices. Moreover, at the cross-border level, Austria is collaborating with Germany on digital sovereign workplace for public administration based on open source.

Policy Area 7

Foster resilience and sustainability in the digital society

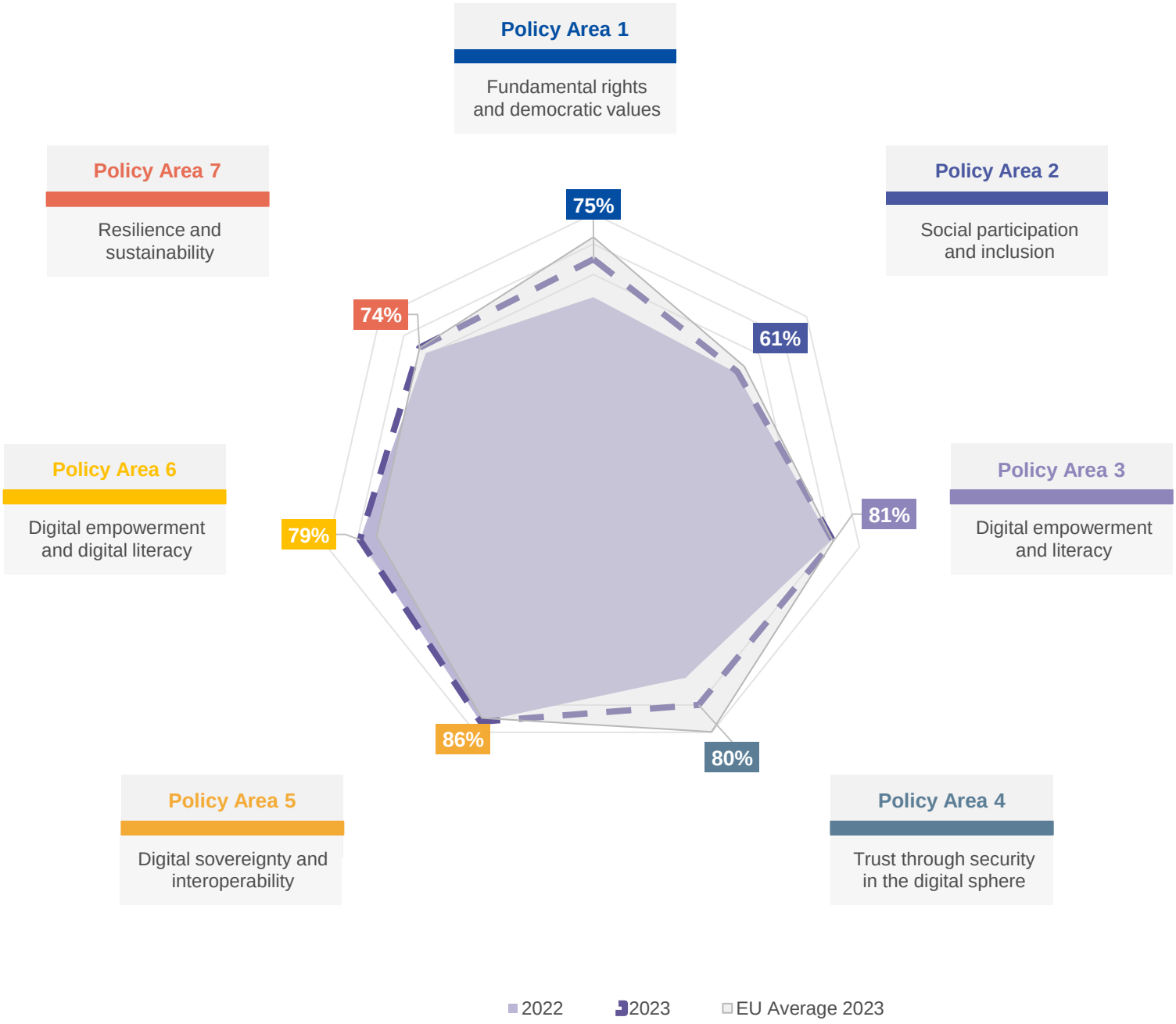


To ensure a sustainable and impactful growth, the Digital Skills Initiative (*Digitale Kompetenzoffensive*) has been launched in Austria in a whole-of-government approach encompassing four Ministries (Finance; Science, Technology and Education; Public Sector and Culture; and Economy and Labour) and all Federal States. 800 workshops covering all aspects of the European DigComp model, as well as special emphasis on Cybersecurity, AI, resilience and sustainable usage of digital tools, have been held. Moreover, several approaches have been taken to enhance the awareness of sustainability in the digital field, such as considering IT appliances as a part of the personal carbon footprint and fostering competences in sustainable project management.

BELGIUM

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Belgium | Policy Areas level of implementation

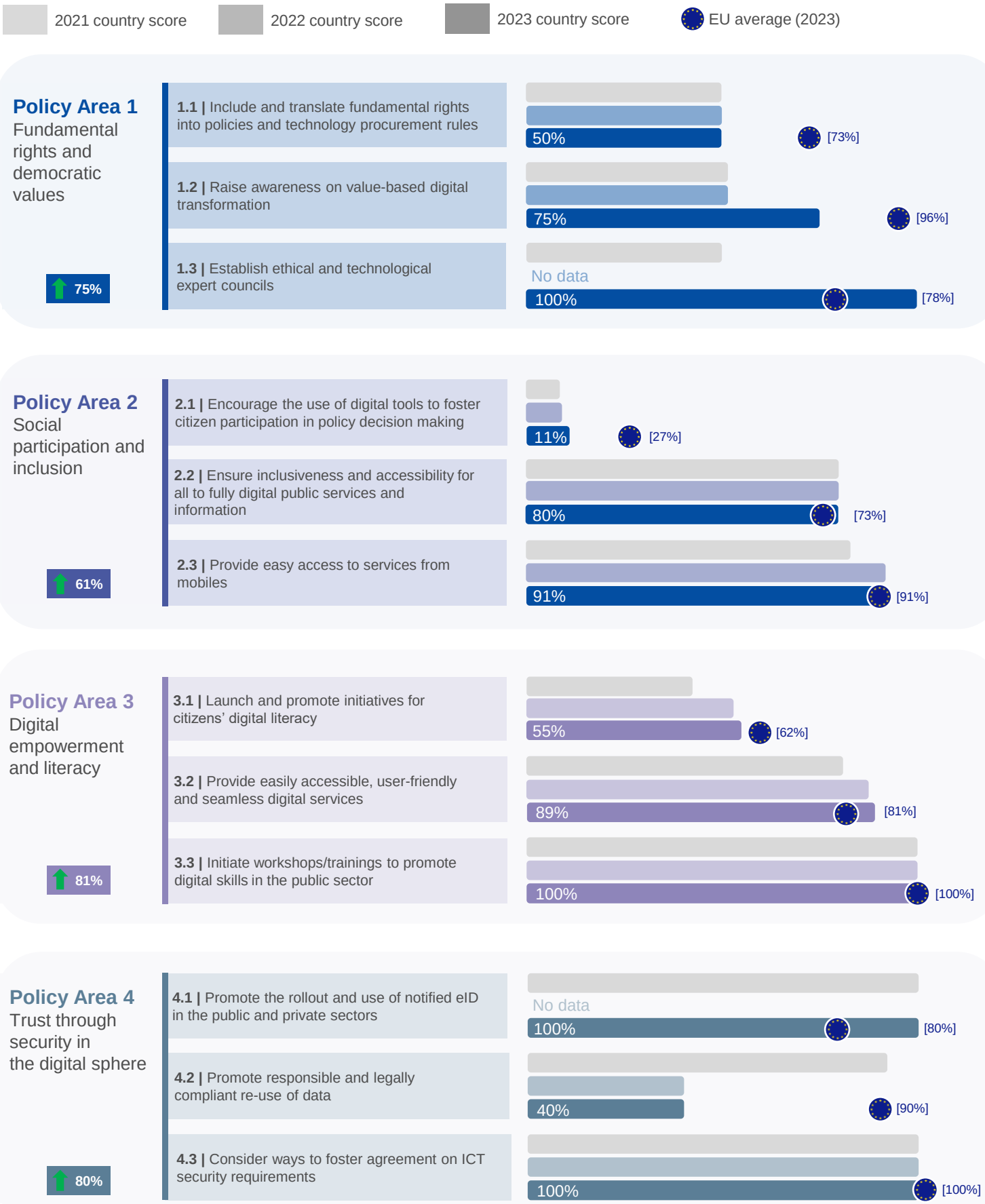


Overall, Belgium's scores in the Berlin Declaration monitoring mechanism 2023 have increased compared to those of 2022, except for Policy Areas 5 and 6, which have remained the same. While Policy Area 1 encounters a significant increase of 12 percentage points compared to last year, Policy Area 2 has increased by 1 percentage point. Policy Area 7 has increased by 3 percentage points, and Policy Area 4 has seen a notable increase of 10 percentage points. Policy Area 3 has seen a minimal increase of 1 percentage point.

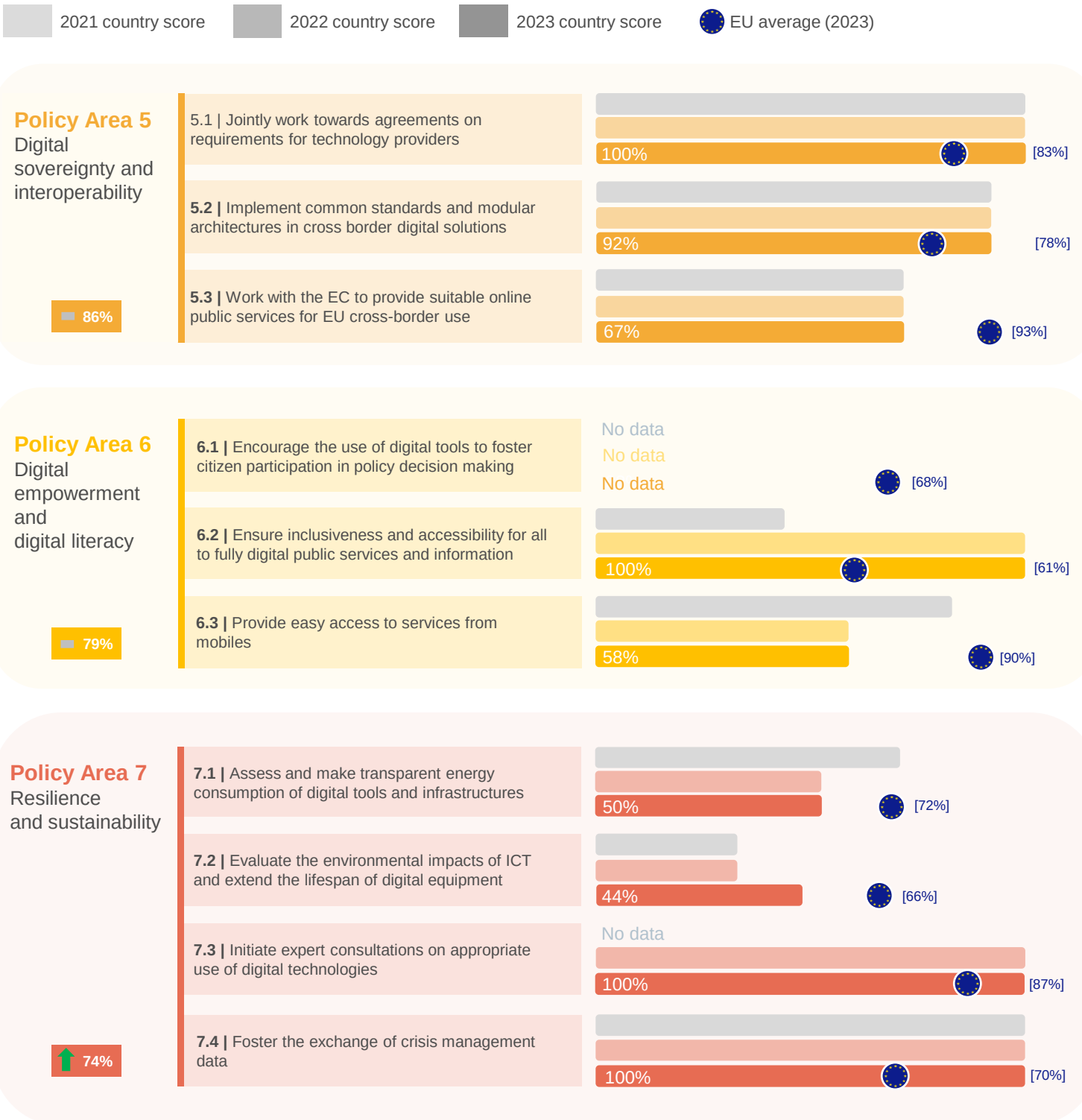
The most significant increases for Belgium compared to 2022 have been recorded for Policy Area 1, with a progress of 12 percentage points, as well as Policy Area 4, which received an increase of 10 percentage points.

In addition, Belgium scores above the EU average in three out of seven Policy Areas. Belgium scores 75% in Policy Area 1 compared to an EU average of 82%, 61% in Policy Area 2 compared to 64%, 81% in Policy Area 3 matching the EU average, 80% in Policy Area 4 compared to 90%, 86% in Policy Area 5 compared to 85%, 79% in Policy Area 6 compared to 73%, and 74% in Policy Area 7 compared to 73%.

2023 BDM Results for Belgium | Policy Actions level of implementation



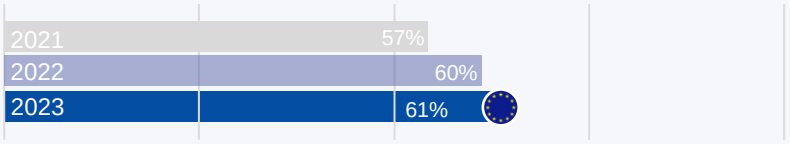
2023 BDM Results for Belgium | Policy Actions level of implementation



Qualitative stories from Belgium

Policy Area 2

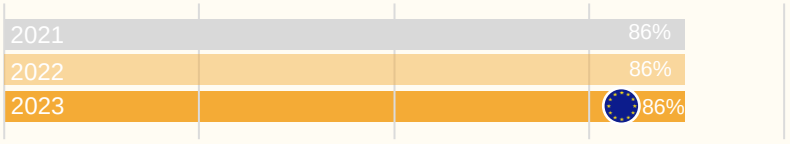
Enhance social participation and digital inclusion



The Federal Public Service Policy and Support (FOD/SPF BOSA) has developed "Connectoo", a free online training course addressed at civil servants to help them understand the challenges of digital inclusion and teach them how to facilitate the adoption of online services so as to close the digital gap. This initiative is part of a broader strategy at the national level to boost digital inclusion and support for all citizens.

Policy Area 5

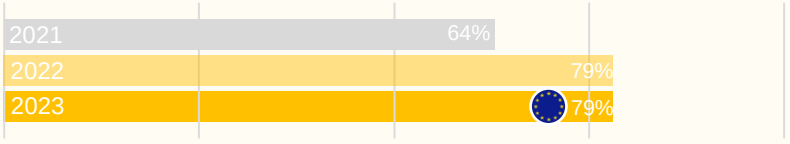
Strengthen Europe's digital sovereignty and interoperability



With regard to digital sovereignty, the Interuniversity Microelectronics Centre (IMEC), an independent research centre for micro-and-nano-electronics part of the Alliance on Processors and Semiconductor Technologies, gathers actors from the electronics value chain across the EU, including academia, research and technology organisations, but also users to join forces in order to maintain and boost the competitiveness of this sector in the EU. At the national level, an open community of cloud stakeholders working on Gaia-X has been created. It focuses on building interest and facilitating the scaling-up of Gaia-X use cases.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector

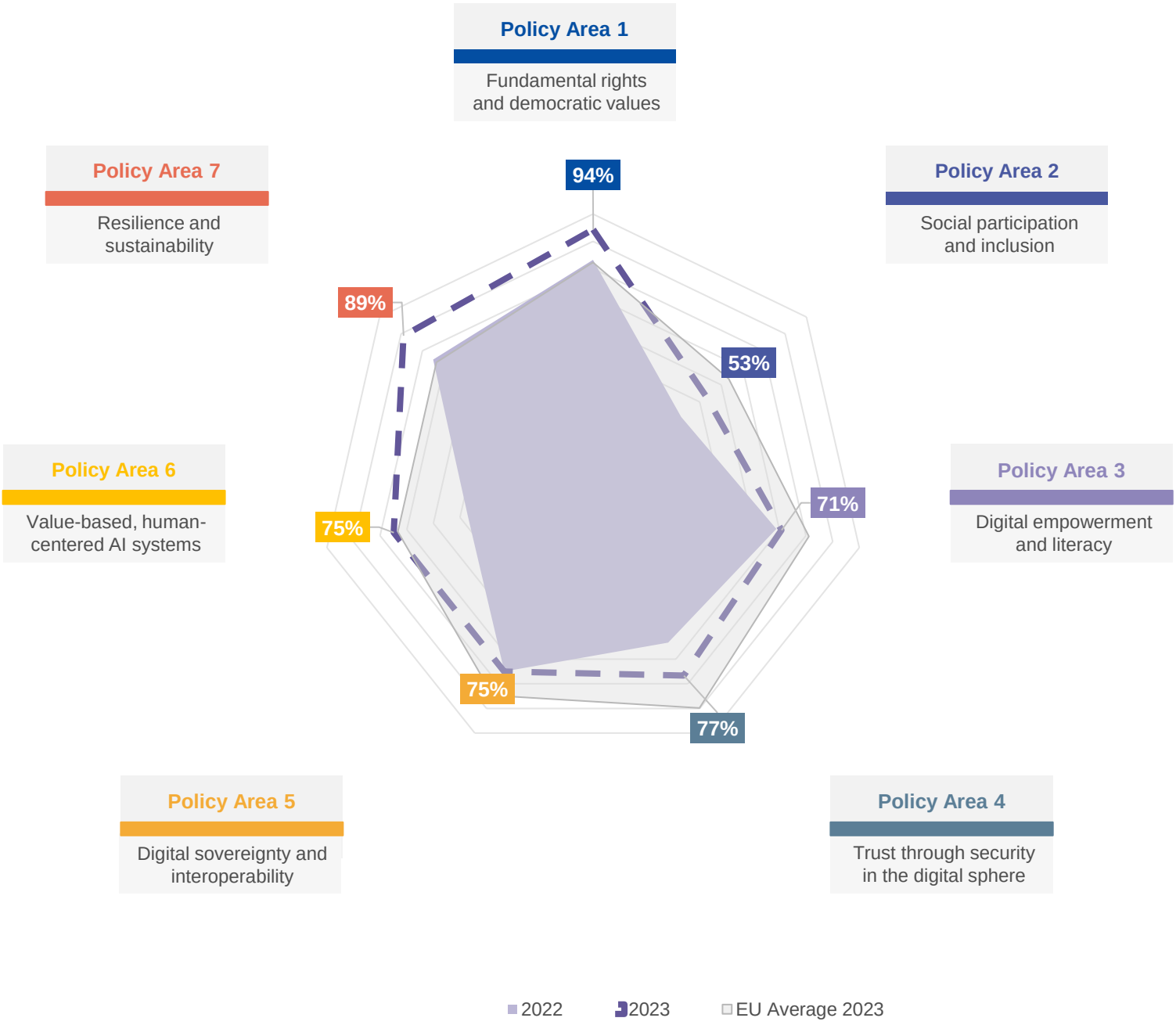


Belgium has made human-centered design a top priority, recognising its significance in creating user-centric digital solutions. FOD/SPF BOSA actively engages in promoting this approach by providing inspiration and guidelines for stakeholders, as well as offering resources, such as good practices, case studies, and guidance to support the implementation of human-centered design principles in the digital government context. This commitment underscores FOD/SPF BOSA's dedication to ensure that digital services are not only technologically robust but also tailored to meet the specific expectations and requirements of end users.

BULGARIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Bulgaria | Policy Areas level of implementation



Bulgaria's scores in the Berlin Declaration monitoring mechanism 2023 have increased compared to those of 2022, except for Policy Area 5, which has remained the same. While Policy Area 1 encounters a significant increase of 11 percentage points compared to last year, as well as Policy Area 2, which increased by 12 percentage points. Policy Area 7 has increased by 14 percentage points, and Policy Area 4 has seen a notable increase of 14 percentage points. Policy Area 3 has seen a slow increase of 2 percentage points.

The most significant increases for Bulgaria compared to 2022 have been recorded for Policy Area 7, with a progress of 14 percentage points, and in particular Policy Area 4, which also received an increase of 14 percentage points.

In addition, Bulgaria scores above the EU average in four out of seven Policy Areas. Bulgaria scores 94% in Policy Area 1 compared to an EU average of 82%, 53% in Policy Area 2 compared to 64%, 71% in Policy Area 3 compared to 81%, 77% in Policy Area 4 compared to 90%, 75% in Policy Area 5 compared to 85%, 75% in Policy Area 6 compared to 73%, and 89% in Policy Area 7 compared to 73%.

2023 BDM Results for Bulgaria | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

94%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

83% [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

0%
100% [78%]

Policy Area 2
Social participation and inclusion

53%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

12% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

60% [73%]

2.3 | Provide easy access to services from mobiles

88% [91%]

Policy Area 3
Digital empowerment and literacy

71%

3.1 | Launch and promote initiatives for citizens' digital literacy

50% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

63% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100% [100%]

Policy Area 4
Trust through security in the digital sphere

77%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

0%
50% [80%]

4.2 | Promote responsible and legally compliant re-use of data

80% [90%]

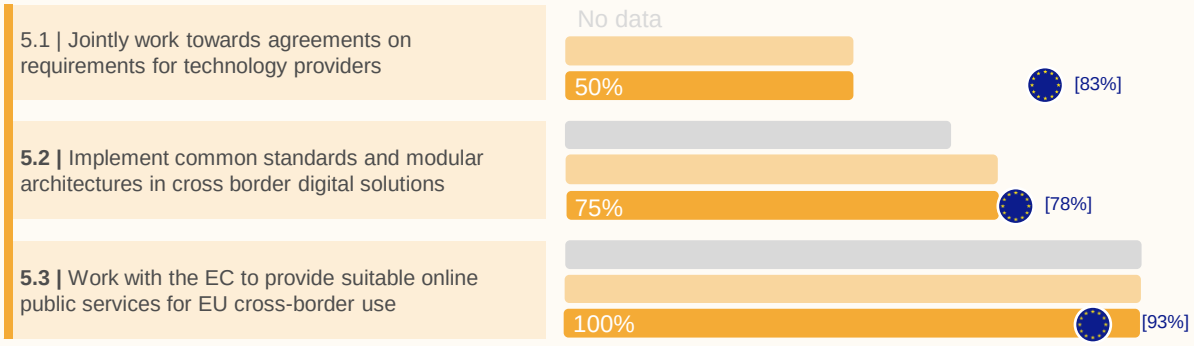
4.3 | Consider ways to foster agreement on ICT security requirements

100% [100%]

2023 BDM Results for Bulgaria | Policy Actions level of implementation

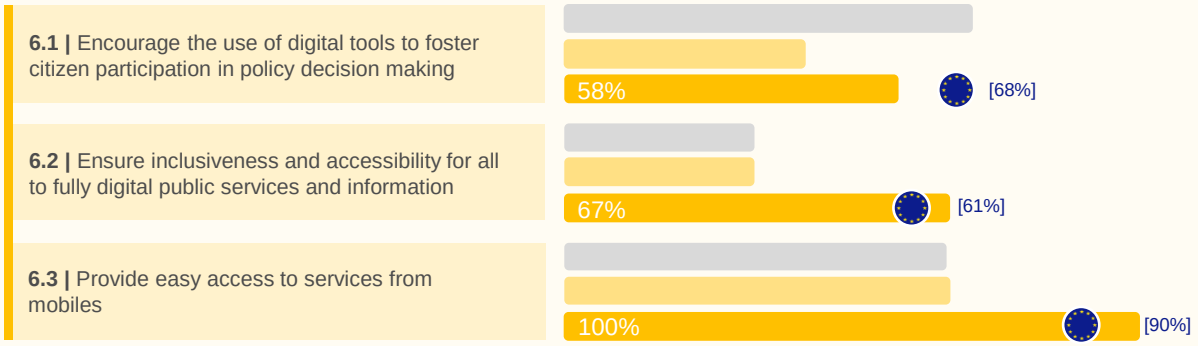
Policy Area 5
Digital sovereignty and interoperability

75%



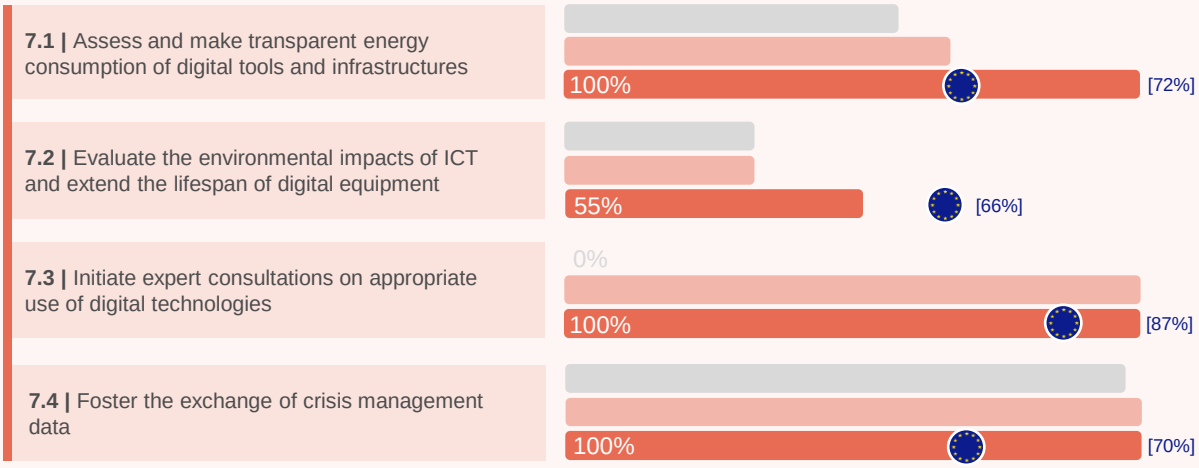
Policy Area 6
Digital empowerment and digital literacy

75%



Policy Area 7
Resilience and sustainability

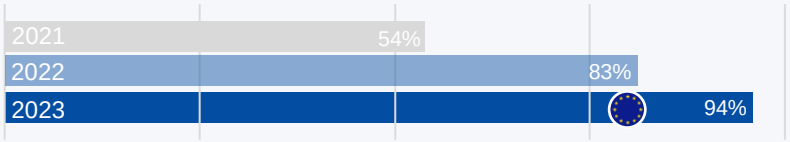
89%



Qualitative stories from Bulgaria

Policy Area 1

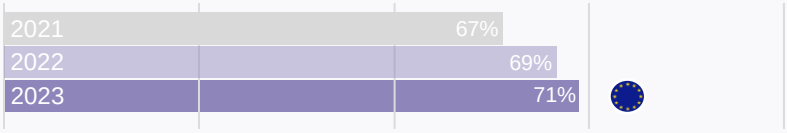
Promote fundamental rights and democratic values in the digital sphere



In 2023, the "Rights and Values" (ProEUvaluesBG) project was rolled out, which supported 65 civic initiatives in the defence of democracy, equality, and human rights, with a total funding of approximately 1.6 million euros. Educational events, such as webinars and training sessions, were also part of the project, together with informational meetings that were organised across different regions of the country and targeted civic organisations and community centres. The main topics of the webinars were "EU Rights", "Democracy", and "Diversity and Equality", with the goal of providing participants with detailed information and examples of successful initiatives in these areas.

Policy Area 3

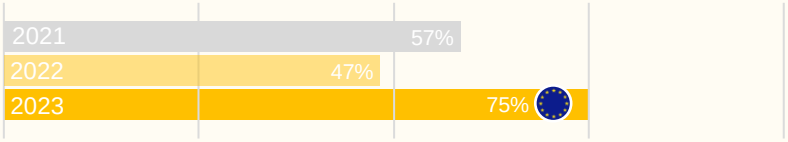
Foster digital empowerment and digital literacy



Starting from 2020, Bulgaria has been deploying a whole programme focused on improving the digital skills and competencies of civil servants, which is part of the catalogue of trainings called “Digital Competence” and is developed following the DigiComp Framework. Between 2022 and 2023, the numbers of the participants in the trainings aimed at enhancing digital skills reached 40,902 people. Topics tackled include digital competencies, innovation in the public sector, and e-governance, among others.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector

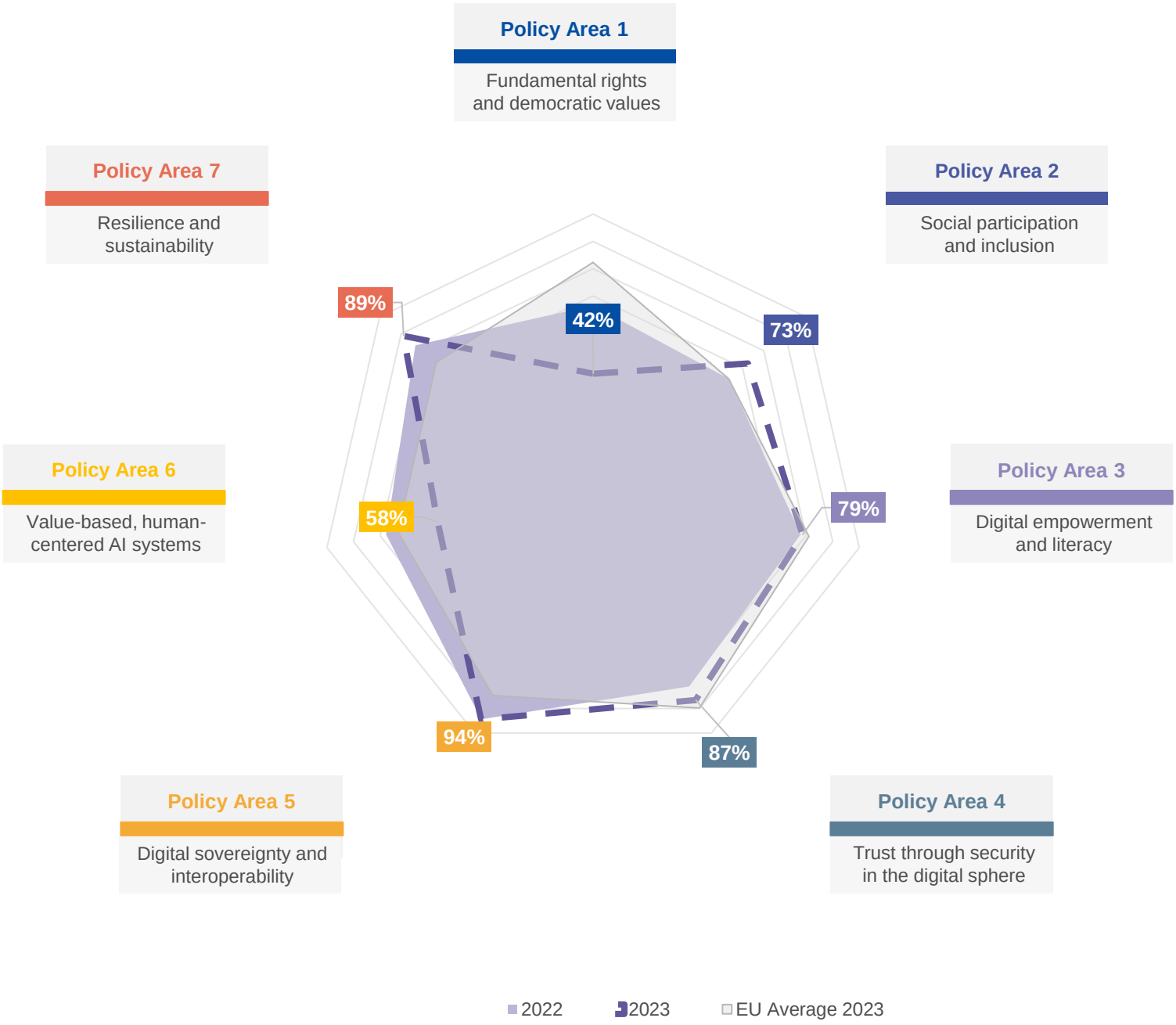


At the end of 2022, the Institute of Public Administration (IPA), with the support of the Council of Ministers' Administration, initiated the start of an innovation network among public servants that aims to promote knowledge and good practices and to encourage innovation. In 2023, IPA launched a competition for innovations where around 20 ideas were received. 3 innovative ideas were selected, and a special event was held in which they received methodological support through design thinking sessions. On the same event, the innovation's network was enlarged with new participants, and it worked on ideas for human-centric AI systems in the public sector.

CROATIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Croatia | Policy Areas level of implementation

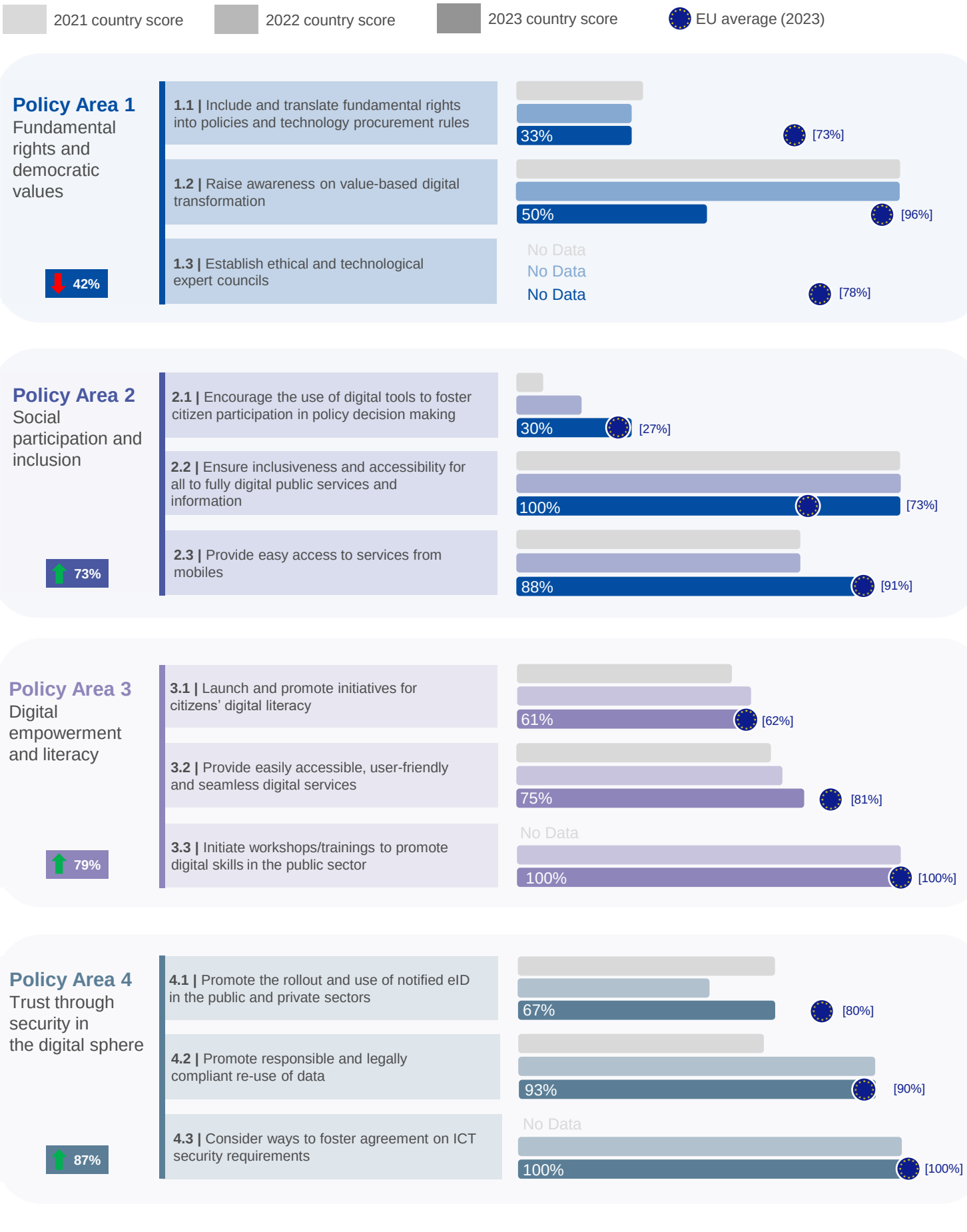


Overall, Croatia's scores in the Berlin Declaration monitoring mechanism 2023 have shown a mix of increases and decreases compared to those of 2022. Policy Areas 1 and 6 have decreased, while the score on Policy Area 5 has remained the same. Policy Area 1 encounters a significant decrease of 25 percentage points compared to last year, and Policy Area 6 has decreased by 20 percentage points. However, notable increases have been observed in other areas: Policy Area 2 has increased by 9 percentage points, Policy Area 4 by 6 percentage points, Policy Area 7 by 6 percentage points, and Policy Area 3 by 1 percentage point.

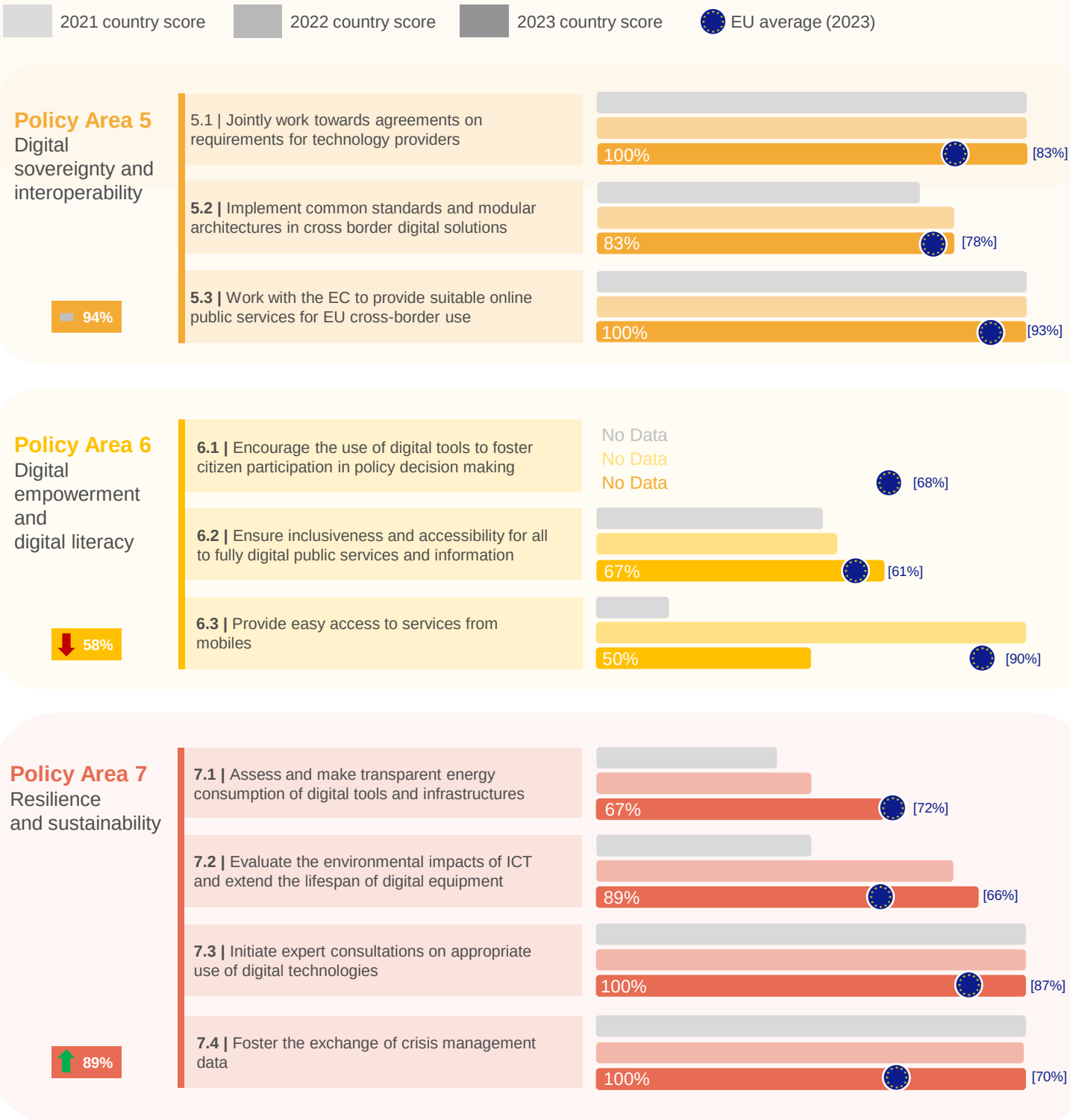
The most significant increases for Croatia compared to 2022 have been recorded for Policy Area 2, with a progress of 9 percentage points, and Policy Area 4 and 7, which both received an increase of 6 percentage points.

In addition, Croatia scores above the EU average in three out of seven Policy Areas. Croatia scores 42% in Policy Area 1 compared to an EU average of 82%, 73% in Policy Area 2 compared to 64%, 79% in Policy Area 3 compared to 81%, 87% in Policy Area 4 compared to 90%, 94% in Policy Area 5 compared to 85%, 58% in Policy Area 6 compared to 73%, and 89% in Policy Area 7 compared to 73%.

2023 BDM Results for Croatia | Policy Actions level of implementation



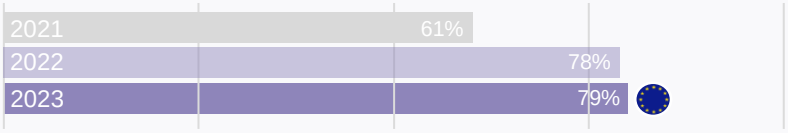
2023 BDM Results for Croatia | Policy Actions level of implementation



Qualitative stories from Croatia

Policy Area 3

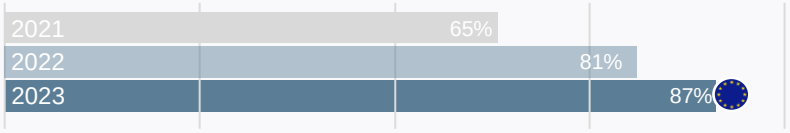
Foster digital empowerment and digital literacy



While 2022 saw the beginning of the NRRP project "Digital Transformation of Higher Education", whose goal is to carry out a digital transformation of higher education, in 2023, the eSchool project was completed, with a total value of 212 million euros aimed at digitising all schools in Croatia. Training was also conducted for 135 war veterans on the use of the eCitizen system. Furthermore, the "Digital Croatia" project was launched to encourage digital literacy and provide citizens with knowledge that will facilitate digitisation. Digital road tours are also conducted in selected cities.

Policy Area 4

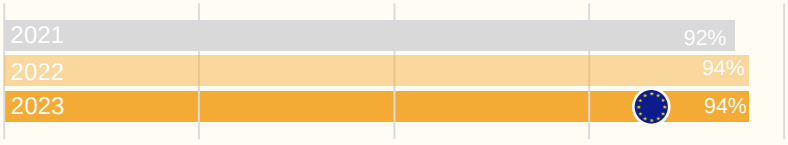
Strengthen trust through security in the digital sphere



Croatia developed an information technology system for the central identification and authentication of users in accessing electronic public services, which is certified according to ISO/IEC 27001:2013. Such system is called NIAS and contains 27 credentials. NIAS is notified at the EU level for the cross-border exchange of electronic identity, as well as eID credentials. In 2023, the NIAS analysis for the use of mobile technology began, and an upgrade is planned in Q3 2024. A project plan was also announced for the outsourcing of NIAS so that the private sector could use a reliable state system for electronic identification.

Policy Area 5

Strengthen Europe's digital sovereignty and interoperability

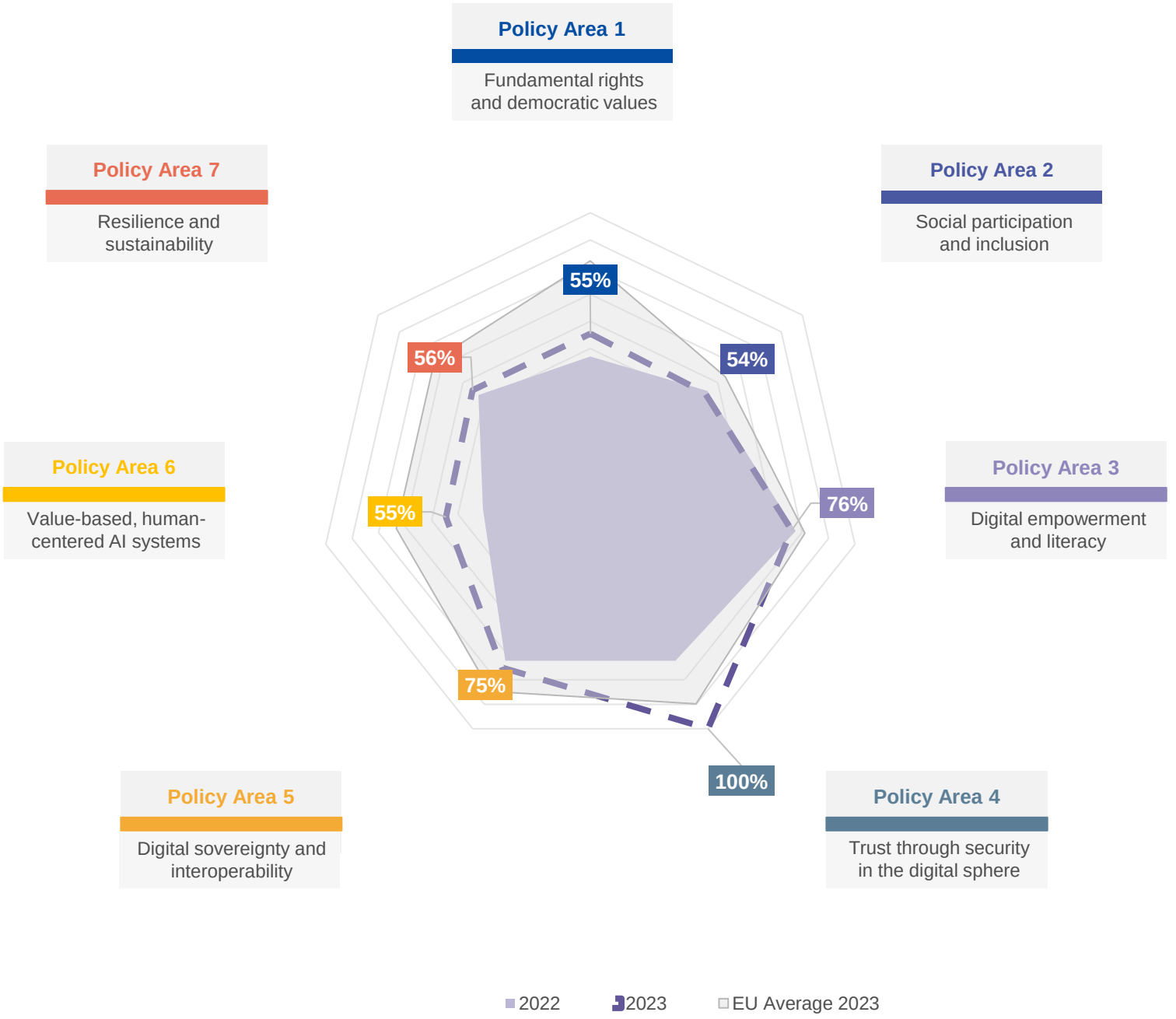


The digitisation of e.Standards, guidelines for the development of eServices in public sector bodies, ensures the conditions for development of eServices focused on the welfare of users. The implementation of e.Standard also promotes secure cloud infrastructure, interoperability, the use of building blocks and modular architecture, while respecting common clear principles. At the same time, reusable development is promoted in Croatia, which strengthens sovereignty and reduces development costs, and data, shared services and registers are stored in a secure state cloud. For the purpose of testing the functionality with partners in this activity, three eServices were developed and successfully implemented through the e.Standard e-system: development of the register, establishment of common components, and development of building blocks.

CYPRUS

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Cyprus | Policy Areas level of implementation



Overall, Cyprus's scores in the Berlin Declaration monitoring mechanism 2023 have increased compared to those of 2022, except for Policy Areas 2 and 3, which have slightly decreased. While Policy Area 1 encounters an increase of 8 percentage points compared to last year, Policy Area 4 has seen a notable increase of 28 percentage points. Policy Area 5 has increased by 3 percentage points, Policy Area 6 by 14 percentage points, and Policy Area 7 by 3 percentage points. Policy Area 2 has seen a slight decrease of 1 percentage point, and Policy Area 3 has decreased by 2 percentage points.

The most significant increases for Cyprus compared to 2022 have been recorded for Policy Area 4, with a remarkable progress of 28 percentage points, and Policy Area 6, which received an increase of 14 percentage points.

In addition, Cyprus scores below the EU average in six out of seven Policy Areas. Cyprus scores 55% in Policy Area 1 compared to an EU average of 82%, 54% in Policy Area 2 compared to 64%, 76% in Policy Area 3 compared to 81%, 100% in Policy Area 4 compared to 90%, 75% in Policy Area 5 compared to 85%, 55% in Policy Area 6 compared to 73%, and 56% in Policy Area 7 compared to 73%.

2023 BDM Results for Cyprus | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

55%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

No data
33%
[73%]

1.2 | Raise awareness on value-based digital transformation

100%
[96%]

1.3 | Establish ethical and technological expert councils

No data
33%
[78%]

Policy Area 2
Social participation and inclusion

54%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

1%
2%
[27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

80%
[73%]

2.3 | Provide easy access to services from mobiles

80%
[91%]

Policy Area 3
Digital empowerment and literacy

76%

3.1 | Launch and promote initiatives for citizens' digital literacy

58%
[62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

70%
[81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100%
[100%]

Policy Area 4
Trust through security in the digital sphere

100%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100%
[80%]

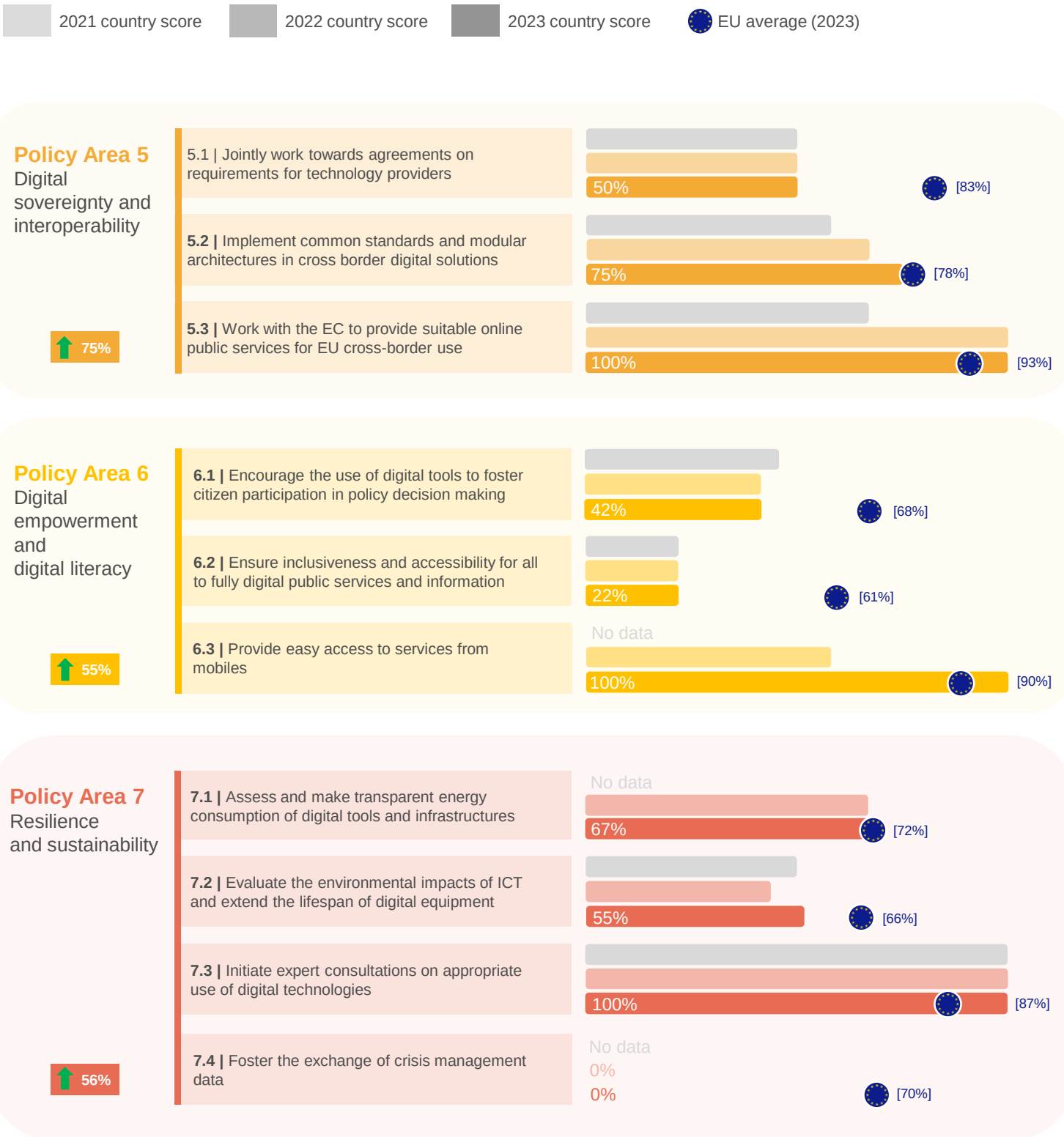
4.2 | Promote responsible and legally compliant re-use of data

100%
[90%]

4.3 | Consider ways to foster agreement on ICT security requirements

100%
[100%]

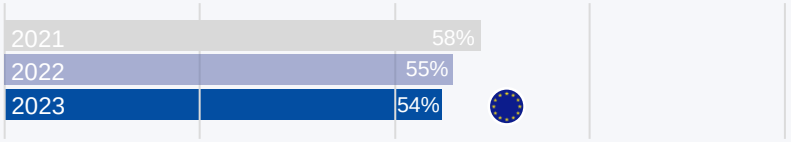
2023 BDM Results for Cyprus | Policy Actions level of implementation



Qualitative stories from Cyprus

Policy Area 2

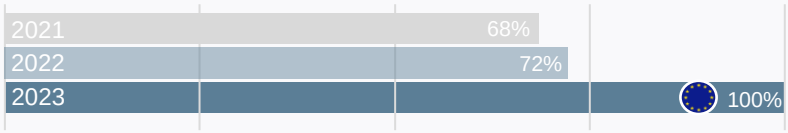
Enhance social participation and digital inclusion



The National Digital Strategy 2020-2025, coordinated by the Deputy Ministry of Research, Innovation and Digital Policy, aims to transform the country into a digitally-enabled society and economy. Key areas include technology integration for public benefit, fostering a sustainable digital economy, promoting an open and inclusive digital society, and enabling a green digital transition. Specific initiatives under this strategy focus on developing digital skills across various sectors, including basic and lifelong learning, supporting local businesses in digitalisation, and nurturing a new generation of STEM graduates. The strategy is supported by both national and EU funding, including significant investments from the EU Recovery and Resilience Fund and other EU programmes, to promote e-government, enhance digital skills, and develop smart cities in Cyprus.

Policy Area 4

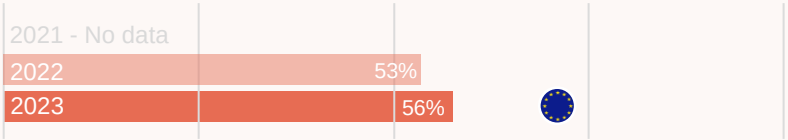
Strengthen trust through security in the digital sphere



The Cyber Citizen Initiative, active from 2022 to 2024, aims to foster a security culture in the digital environment, prioritising human well-being. It includes the development of a European cybersecurity learning model and a digital learning portal with various e-learning methods, cybersecurity content tailored to different target groups, and an engaging cybersecurity game. These actions are designed to equip citizens with the knowledge and skills to navigate the digital world securely and confidently. Moreover, following the establishment of the National Coordination Center for Cybersecurity in December 2021, a campaign to raise awareness on cybersecurity was launched.

Policy Area 7

Foster resilience and sustainability in the digital society

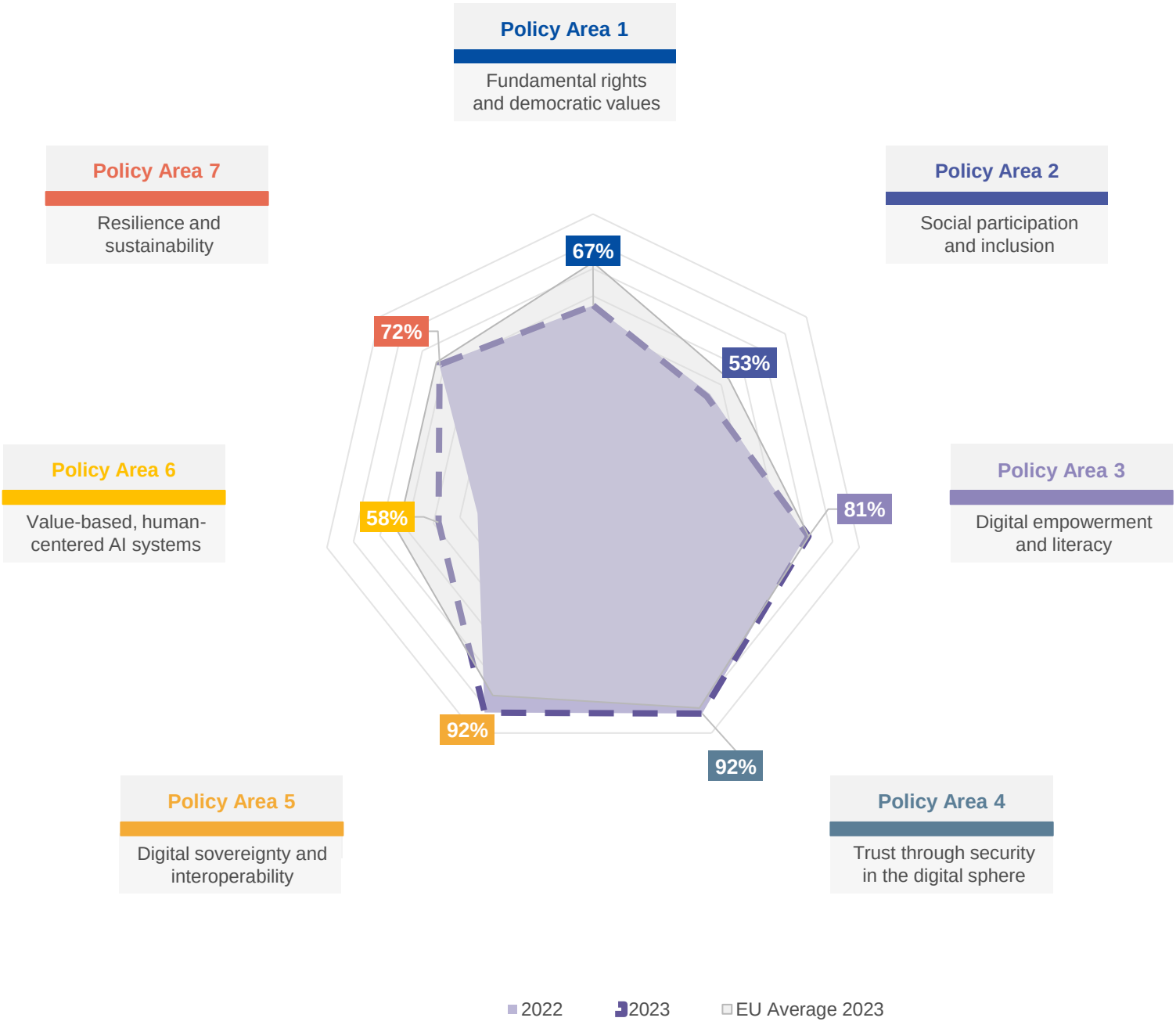


Cyprus has committed to a dual green and digital transformation, aligning with EU priorities. This transformation emphasises the adoption of advanced technologies, including 5G, optical fibers, high-performance computing, IoT, AI, and blockchain; and are being leveraged to develop greener, more comprehensive, and sustainable economies, while also ensuring that human rights, democracy, and the rule of law are upheld in the rapidly evolving digital environment. Another significant initiative is DiGiNN, the European Digital Innovation Hub in Cyprus, launched to accelerate the digital transformation of SMEs and the public sector. DiGiNN aims to promote digital literacy and support the digital upgrading of businesses.

CZECHIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Czechia | Policy Areas level of implementation

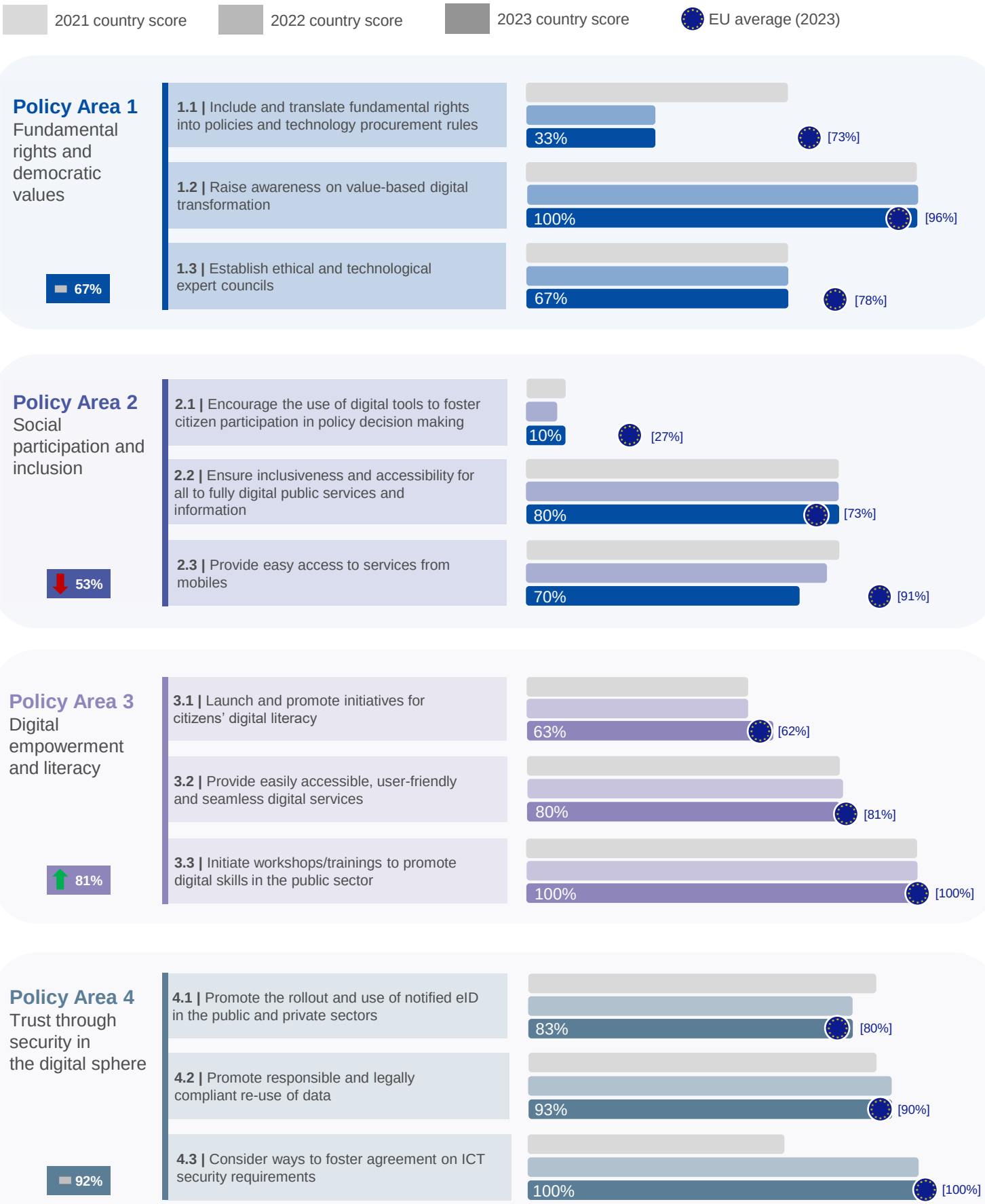


Overall, Czechia's scores in the Berlin Declaration monitoring mechanism 2023 have shown mixed trends compared to those of 2022. While Policy Areas 1, 4, 5 and 7 have remained stable, Policy Areas 2, 3 and 6 have experienced fluctuations, with Policy Area 6 showing a notable increase.

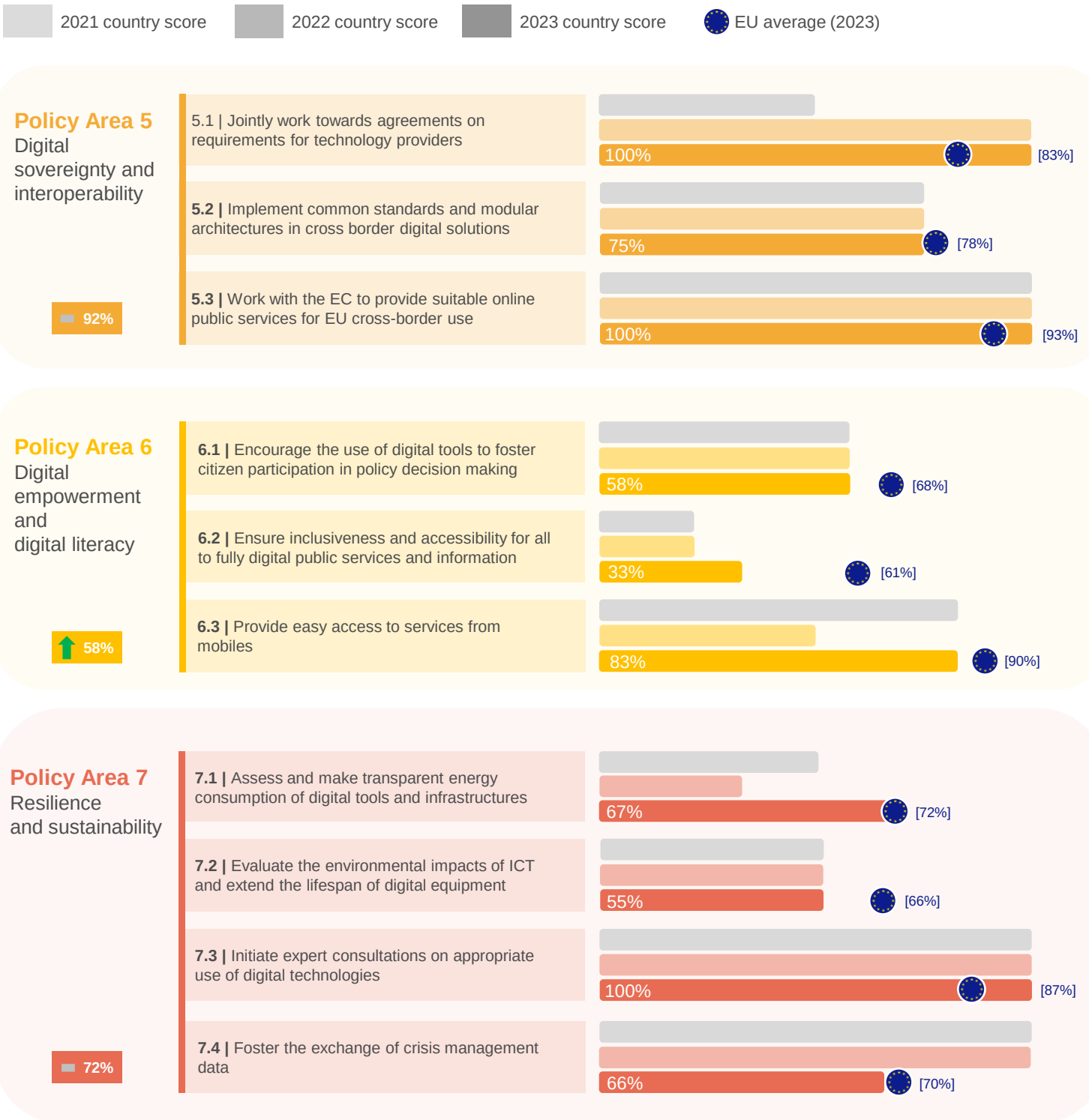
The most significant change for Czechia compared to 2022 has been recorded for Policy Area 6, with a remarkable progress of 15 percentage points.

In addition, Czechia scores above the EU average in two out of seven Policy Areas. Czechia scores 67% in Policy Area 1 compared to an EU average of 82%, 53% in Policy Area 2 compared to 64%, 81% in Policy Area 3 matching the EU average, 92% in Policy Areas 4 and 5 compared to 90% and 85% respectively, 58% in Policy Area 6 compared to 73%, and 72% in Policy Area 7, scoring slightly below the EU average of 73%.

2023 BDM Results for Czechia | Policy Actions level of implementation



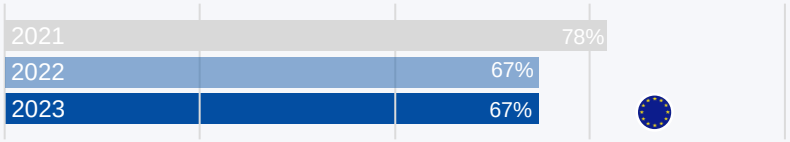
2023 BDM Results for Czechia | Policy Actions level of implementation



Qualitative stories from Czechia

Policy Area 1

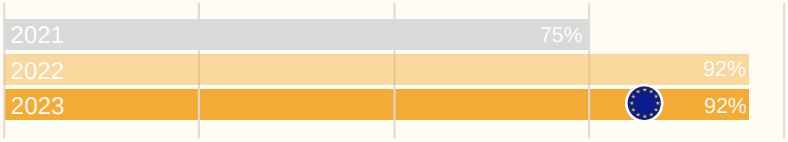
Promote fundamental rights and democratic values in the digital sphere



The Committee for Modern Technologies and Human Rights of the Government Council for Human Rights is enabling participation of civil society and the private sector in the policy-making process in Czechia. Over its 2023 sessions, it created and disseminated a summary document about the impact of modern technologies on human rights. The Committee also organised workshops with experts for relevant policymakers, focusing on AI and human rights, and the accessibility of websites to users of the Czech sign language. In addition, the Committee monitors compliance with the law on the right for digital services, particularly its provisions that non-entrepreneur individuals cannot be obligated to use digital services.

Policy Area 5

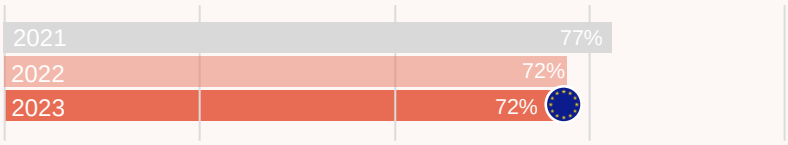
Strengthen Europe's digital sovereignty and interoperability



In 2023, a call on covering the white spots in rural areas ("5G venkov") has been published and submitted projects are now being assessed before being approved for implementation. These projects aim at covering the white spots, where, due to market conditions, sufficient coverage would not be reached without state aid. There has also been published a call on very-high-capacity networks coverage, to ensure an appropriate roll-out throughout Czechia. With a budget of CZK 2.85 billion, this call has a target of 23,000 connections with a completion date of 1Q 2026. In Q4 2023, the Czech Telecommunication Office launched new part of its V-Portal dedicated to data on the availability of fixed ECN connections.

Policy Area 7

Foster resilience and sustainability in the digital society



The Czech Telecommunication Office contributed to the work of BEREC assessing indicators to measure the environmental impact of digital technologies. In this way, Czechia is participating in processes for a common and harmonised assessment methodology and transparency measures regarding the environmental footprint of electronic communications networks and services in the EU. In 2023, the country's Strategic Framework for Sustainable Development 2030 was updated. During this process, the focus was on the sections on de-carbonisation and digitalisation. The framework will be monitored in 3 years and implemented mainly through specific/thematic strategies oriented at digitalisation.

DENMARK

2023 | Berlin Declaration Monitoring (BDM)

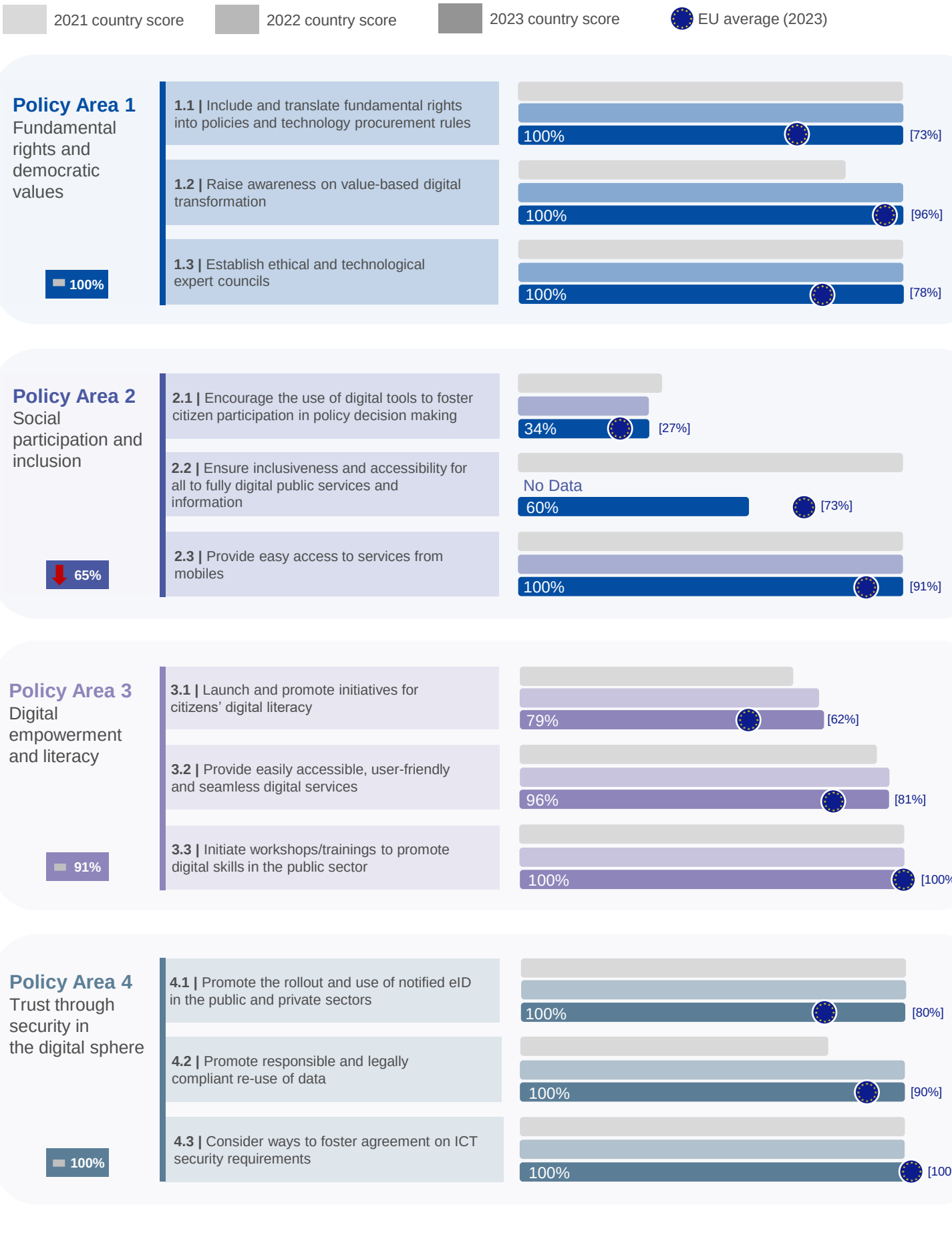
2023 BDM Results for Denmark | Policy Areas level of implementation

Overall, Denmark's scores in the Berlin Declaration monitoring mechanism 2023 have shown a mix trend compared to those of 2022. Policy Areas 1, 3, 4 and 6 have remained stable, while Policy Areas 2 and 5 have experienced decreases, and the score for Policy Area 7 has slightly increased.

Indeed, the most significant change for Denmark compared to 2022 has been recorded for Policy Area 5, with a notable decrease of 13 percentage points.

In addition, Denmark scores above the EU average in five out of seven Policy Areas. Denmark scores 100% in Policy Area 1 compared to an EU average of 82%, 65% in Policy Area 2 compared to 64%, 91% in Policy Area 3 matching the EU average of 81%, 100% in Policy Area 4 compared to 90%, 75% in Policy Area 5 compared to 85%, 69% in Policy Area 6 compared to 73%, and 83% in Policy Area 7, exceeding the EU average of 73%.

2023 BDM Results for Denmark | Policy Actions level of implementation



2023 BDM Results for Denmark | Policy Actions level of implementation

Policy Area 5
Digital sovereignty and interoperability

75%

5.1 | Jointly work towards agreements on requirements for technology providers

No Data
No Data
50%
[83%]

5.2 | Implement common standards and modular architectures in cross border digital solutions

75%
[78%]

5.3 | Work with the EC to provide suitable online public services for EU cross-border use

100%
[93%]

Policy Area 6
Digital empowerment and digital literacy

69%

6.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

63%
[68%]

6.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

44%
[61%]

6.3 | Provide easy access to services from mobiles

100%
[90%]

Policy Area 7
Resilience and sustainability

83%

7.1 | Assess and make transparent energy consumption of digital tools and infrastructures

No Data
67%
[72%]

7.2 | Evaluate the environmental impacts of ICT and extend the lifespan of digital equipment

66%
[66%]

7.3 | Initiate expert consultations on appropriate use of digital technologies

100%
[87%]

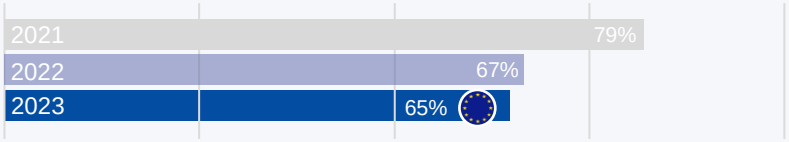
7.4 | Foster the exchange of crisis management data

100%
[70%]

Qualitative stories from Denmark

Policy Area 2

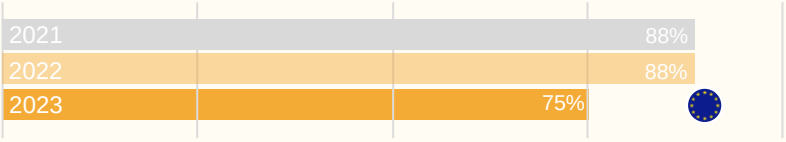
Enhance social participation and digital inclusion



A majority in Parliament entered into a Political Agreement on Initiatives toward Digital Inclusion in June 2023. The agreement contains five specific initiatives intended to facilitate digital inclusion by strengthening the individual's ability to get the necessary help and guidance, expanding opportunities for access to digital training, and making it easier to be a digital support person or IT volunteer. The parties also agreed that this effort must make it easier to help others with Digital Post. In the future, for example, a relative will be able to help read and send messages on behalf of someone else in Digital Post in a legal and secure way. Moreover, the agreement puts emphasis on citizens' experiences with the digital public sector. For this reason, an annual survey of the population's use of and experiences with public digital solutions will be initiated with a special focus on those who are digitally challenged.

Policy Area 5

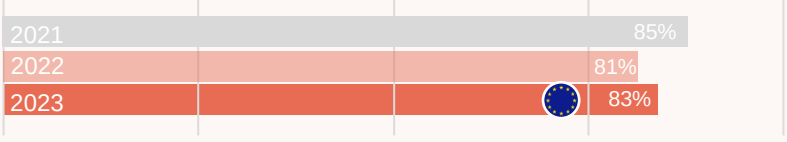
Strengthen Europe's digital sovereignty and interoperability



OS2 is a Danish membership organisation made up of government authorities who collaborate to create and maintain open source software that is developed based on their common needs. Numerous suppliers contribute to OS2, offering consulting, development, hosting, operational advice, and support services. This approach helps prevent reliance on exclusive supplier ownership, sharing ownership, costs, and product functionality development. Furthermore, to support the establishment of common standards on digital architecture, the Danish Agency for Digital Government offers a one-day course, under the auspices of the national Digital Academy, to improve the ability of project managers and generalists to collaborate with enterprise architects on digital solutions. In 2023 this course was attended by 56 practitioners.

Policy Area 7

Foster resilience and sustainability in the digital society

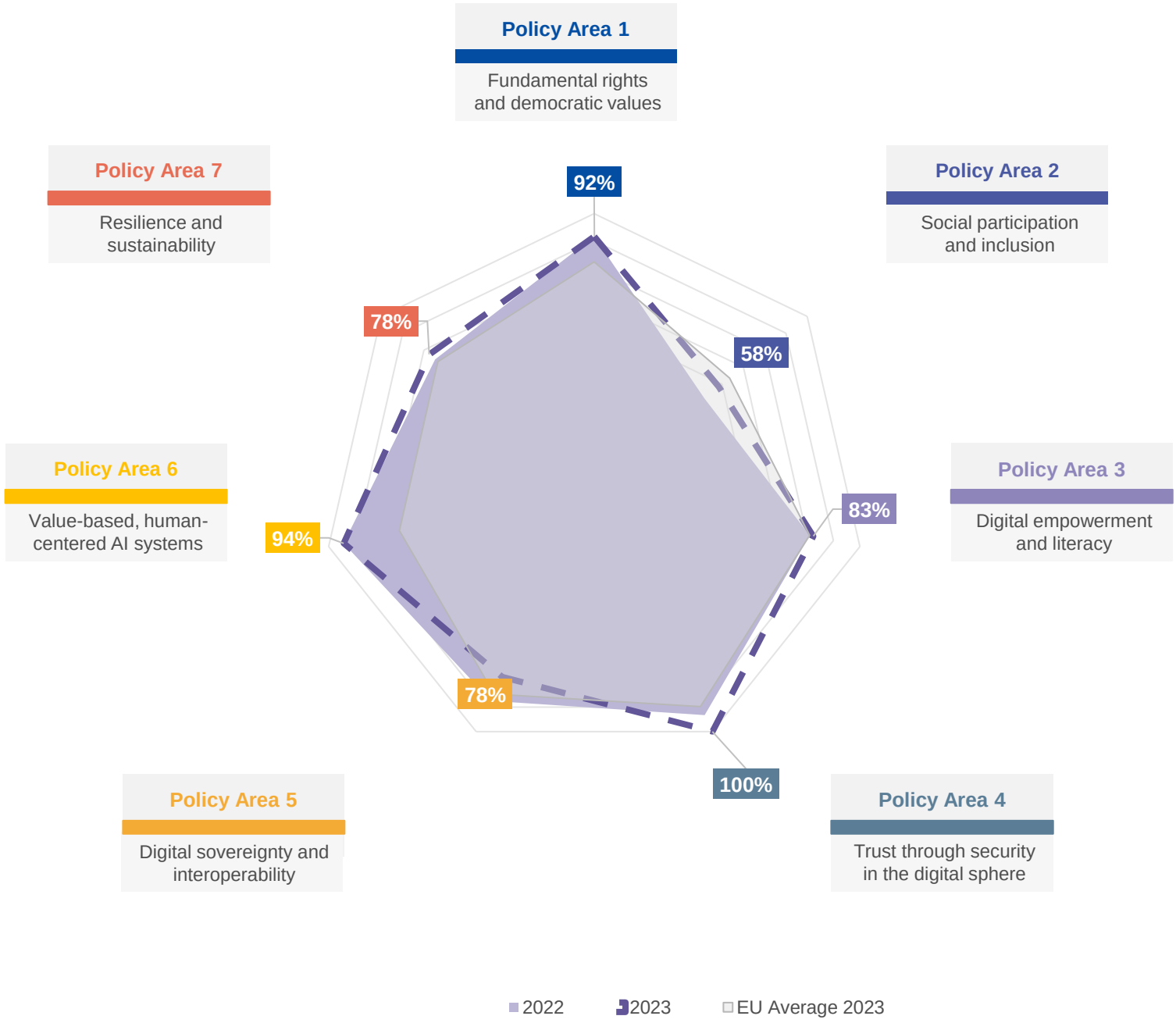


In October 2023, the Danish Health Board published some guidelines on the use of electronic devices equipped with screens for children, young people and adults, including parents with children living at home. To support the preparation of the recommendations, a number of systematic literature studies have been carried out, which examined the available knowledge about the importance of screens for sleep, physical activity and stress and relationships/communities.

ESTONIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Estonia | Policy Areas level of implementation

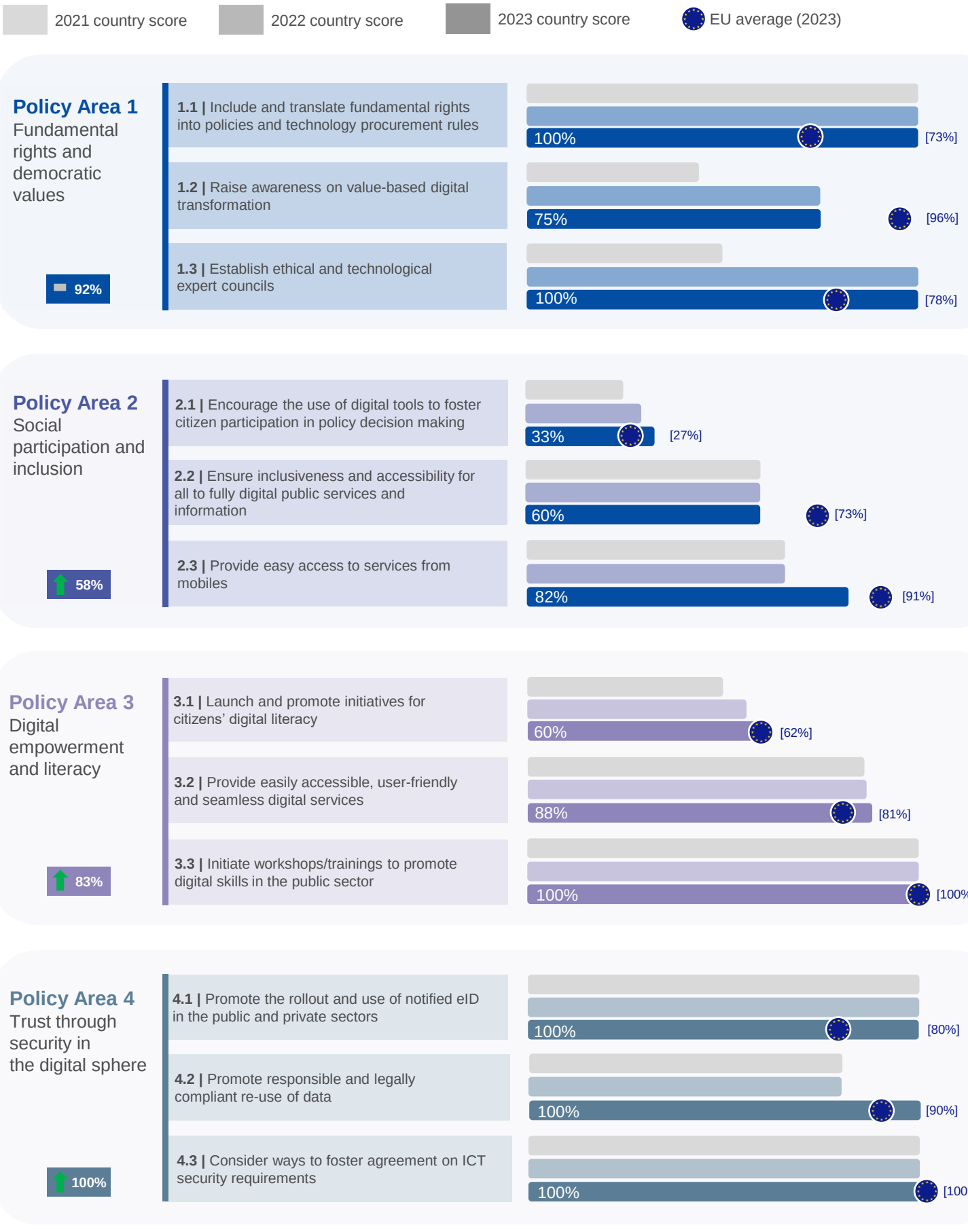


Overall, Estonia's scores in the Berlin Declaration monitoring mechanism 2023 have shown positive trends compared to those of 2022. While Policy Areas 2, 3, 4, and 7 have all increased, Policy Area 5 has experienced a slight decrease. The score for both Policy Area 1 and 6 remained constant.

The most significant change for Estonia compared to 2022 has been recorded for Policy Area 4, with a notable progress of 7 percentage points.

In addition, Estonia scores above the EU average for five out of seven Policy Areas. Estonia scores 92% in Policy Area 1 compared to an EU average of 82%, 58% in Policy Area 2 compared to 64%, 83% in Policy Area 3 compared to 81%, 100% in Policy Area 4 compared to 90%, 78% in Policy Area 5 compared to 85%, 94% in Policy Area 6 compared to 73%, and 78% in Policy Area 7, exceeding the EU average of 73%.

2023 BDM Results for Estonia | Policy Actions level of implementation



2023 BDM Results for Estonia | Policy Actions level of implementation

Policy Area 5
Digital sovereignty and interoperability

78%

5.1 | Jointly work towards agreements on requirements for technology providers
No Data
50%
[83%]

5.2 | Implement common standards and modular architectures in cross border digital solutions
83%
[78%]

5.3 | Work with the EC to provide suitable online public services for EU cross-border use
100%
[93%]

Policy Area 6
Digital empowerment and digital literacy

94%

6.1 | Encourage the use of digital tools to foster citizen participation in policy decision making
83%
[68%]

6.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information
100%
[61%]

6.3 | Provide easy access to services from mobiles
100%
[90%]

Policy Area 7
Resilience and sustainability

78%

7.1 | Assess and make transparent energy consumption of digital tools and infrastructures
67%
[72%]

7.2 | Evaluate the environmental impacts of ICT and extend the lifespan of digital equipment
77%
[66%]

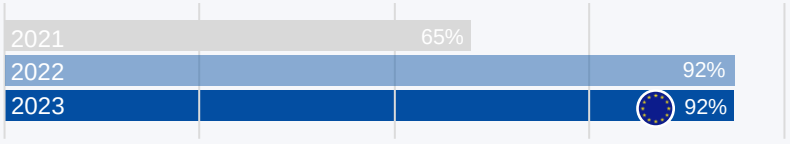
7.3 | Initiate expert consultations on appropriate use of digital technologies
100%
[87%]

7.4 | Foster the exchange of crisis management data
66%
[70%]

Qualitative stories from Estonia

Policy Area 1

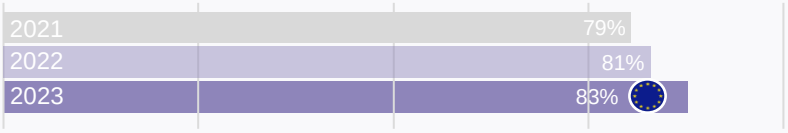
Promote fundamental rights and democratic values in the digital sphere



Estonia launched a Consent service, an eService that allows a person to give permission to the State to share their personal data with a certain service provider. The development of this service started in July 2020 and the first pilot project started in December 2021.

Policy Area 3

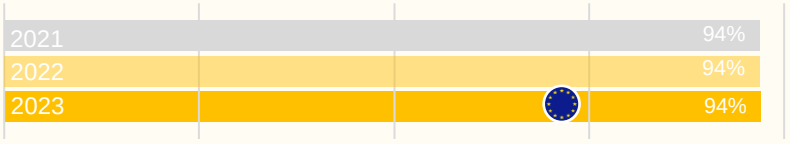
Foster digital empowerment and digital literacy



Estonia's Digital Academy (*DigiriigiAkadeemia*) gives access to free courses for public sector workers in order to increase their digital skills. The Academy also covers more advanced topics and concepts related to digital transformation, including a course on accessibility and digital solutions.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector

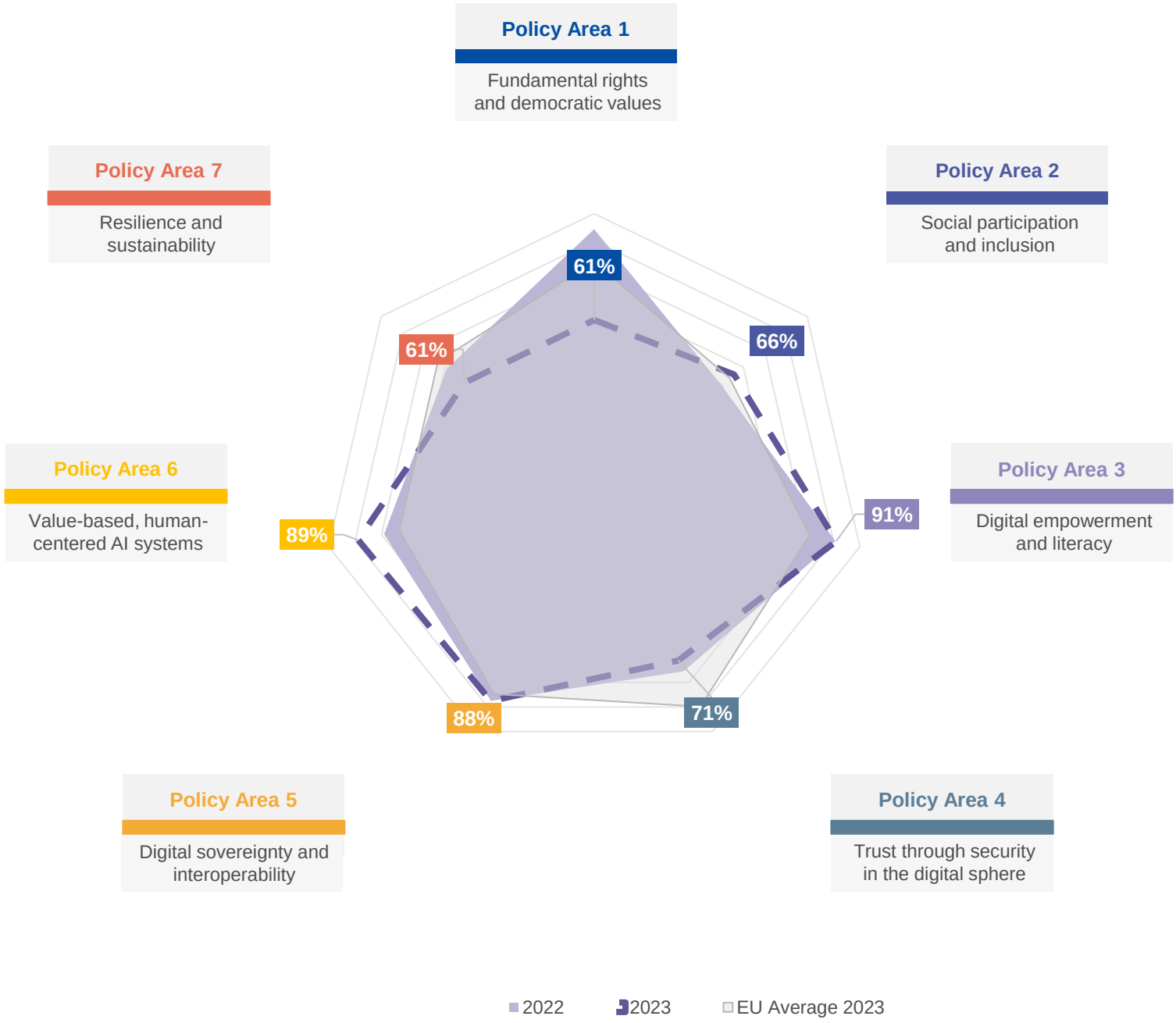


The current National AI Strategy 2022-2023 aims to increase the use of AI in Estonia and thereby increase the user-friendliness and accessibility of eServices and the efficiency of the State, by dedicating a budget of at least 20 million euros throughout 2022 2023. It also includes further developing the "*kratijupid*", a concept which refers to open source AI components that can be reused by the public and private sectors. These components serve as the foundation for the creation of Estonia's government virtual assistant: "*Bürokratt*". Launched in 2022, this tool aims to offer a single channel for accessing public direct and informational services, hence granting citizens easier access to simplified digital public cservices. The goal is to benefit from the widespread use of mobile devices and the internet to access public services more easily and efficiently.

FINLAND

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Finland | Policy Areas level of implementation

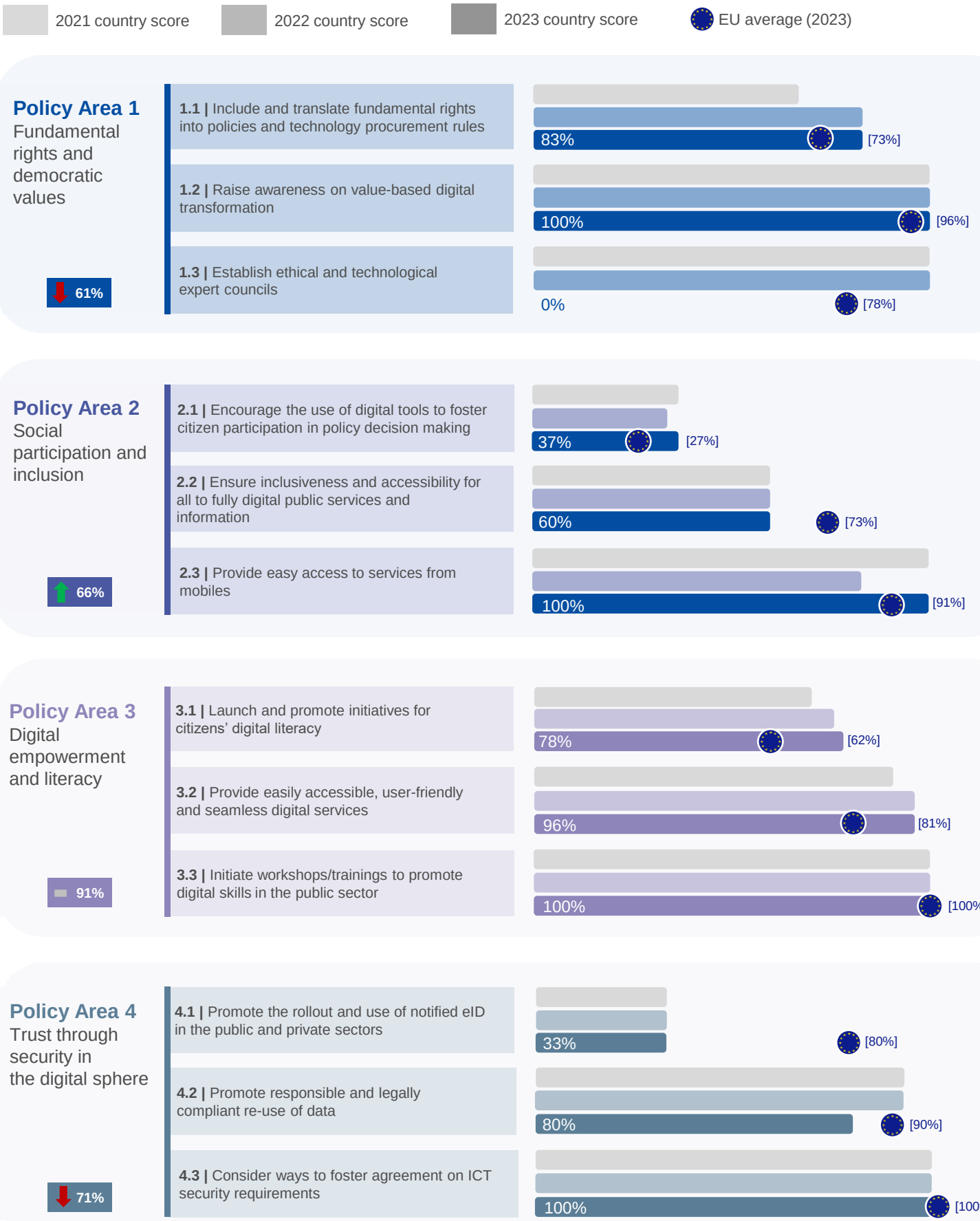


Overall, Finland's scores in the Berlin Declaration monitoring mechanism 2023 have shown a mixed trend compared to those of 2022. While Policy Areas 3 and 5 have remained stable, Policy Areas 1, 4 and 7 have experienced decreases and Policy Areas 2 and 6 have increased.

The most significant change for Finland compared to 2022 has been recorded for Policy Area 1, with a notable decrease of 33 percentage points.

However, Finland scores above the EU average in four out of seven Policy Areas. Finland scores 61% in Policy Area 1 compared to an EU average of 82%, 66% in Policy Area 2 compared to 64%, 91% in Policy Area 3 compared to 81%, 71% in Policy Area 4 compared to 90%, 88% in Policy Area 5 compared to 85%, 89% in Policy Area 6, exceeding the EU average of 73%, and 61% in Policy Area 7 compared to 73%.

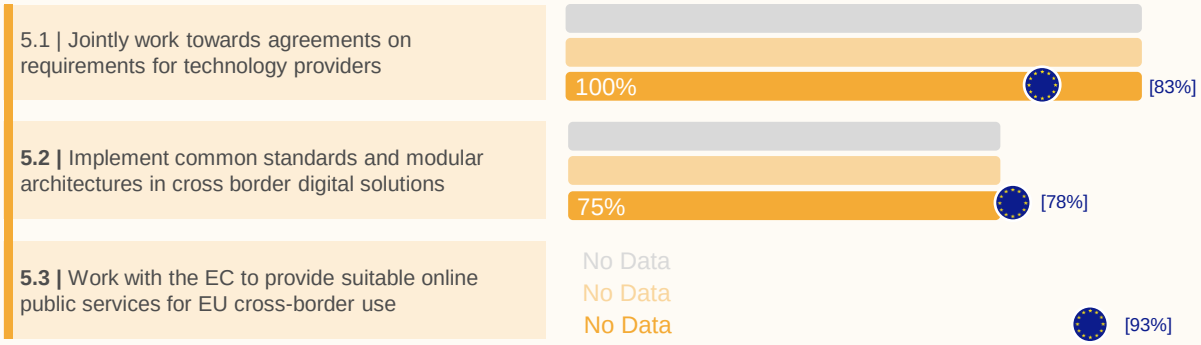
2023 BDM Results for Finland | Policy Actions level of implementation



2023 BDM Results for Finland | Policy Actions level of implementation

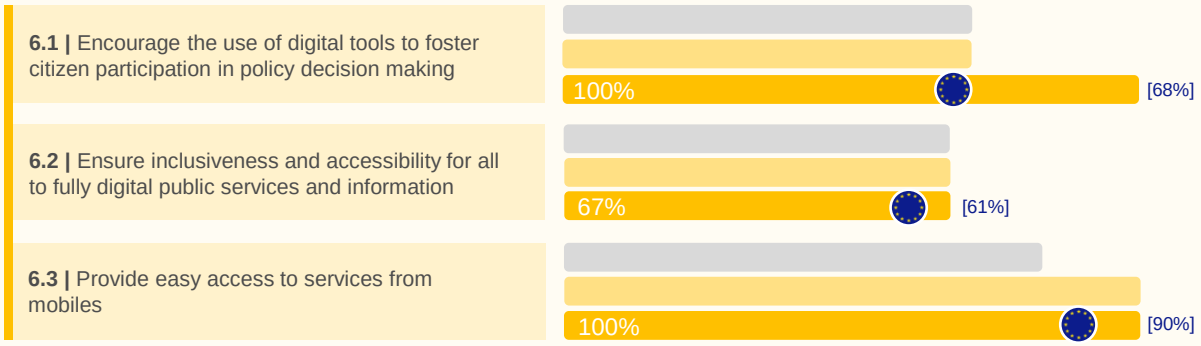
Policy Area 5
Digital sovereignty and interoperability

88%



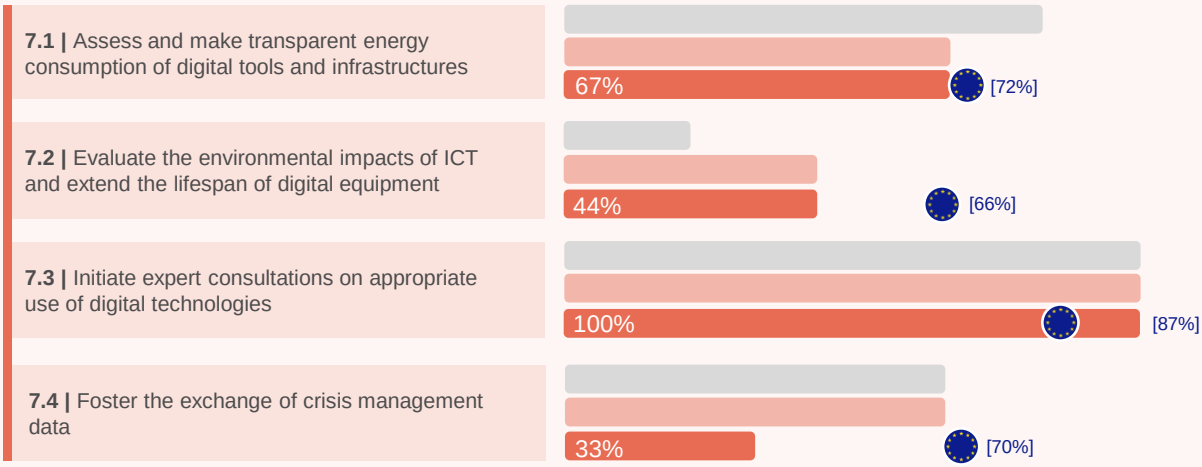
Policy Area 6
Digital empowerment and digital literacy

89%



Policy Area 7
Resilience and sustainability

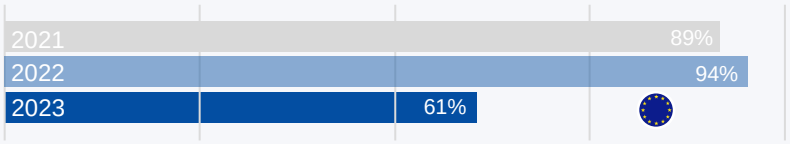
61%



Qualitative stories from Finland

Policy Area 1

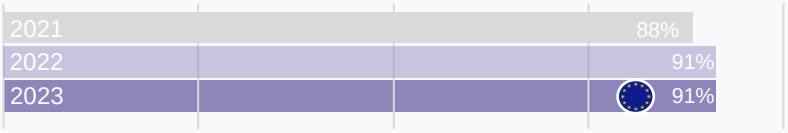
Promote fundamental rights and democratic values in the digital sphere



The National Dialogues model was launched in 2023 and foresaw two rounds of dialogues among the public administration and citizens: one focused on "Living in uncertainty" and another one on "Together and alone". Digitalisation came up in both rounds of discussion as a key topic, since several citizens felt uncertain when faced with the speed that AI is developing, as well as about the impacts that this technology will have on people's jobs and digital inclusion.

Policy Area 3

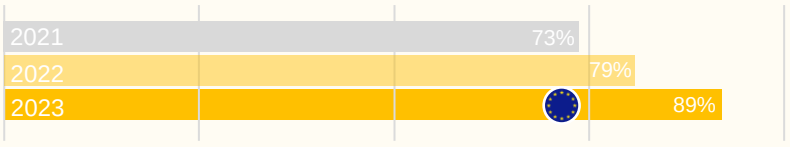
Foster digital empowerment and digital literacy



As part of the Right to Learn Programme, Finland's New Literacies Programme aims to strengthen children's and young people's media literacy, competence in ICT, and programming skills in early childhood education and care, pre-primary, primary, and lower secondary education. The programme has published descriptions of targeted competence in ICT, media literacy and programming skills, which are based on the national core curricula for all levels of education.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector

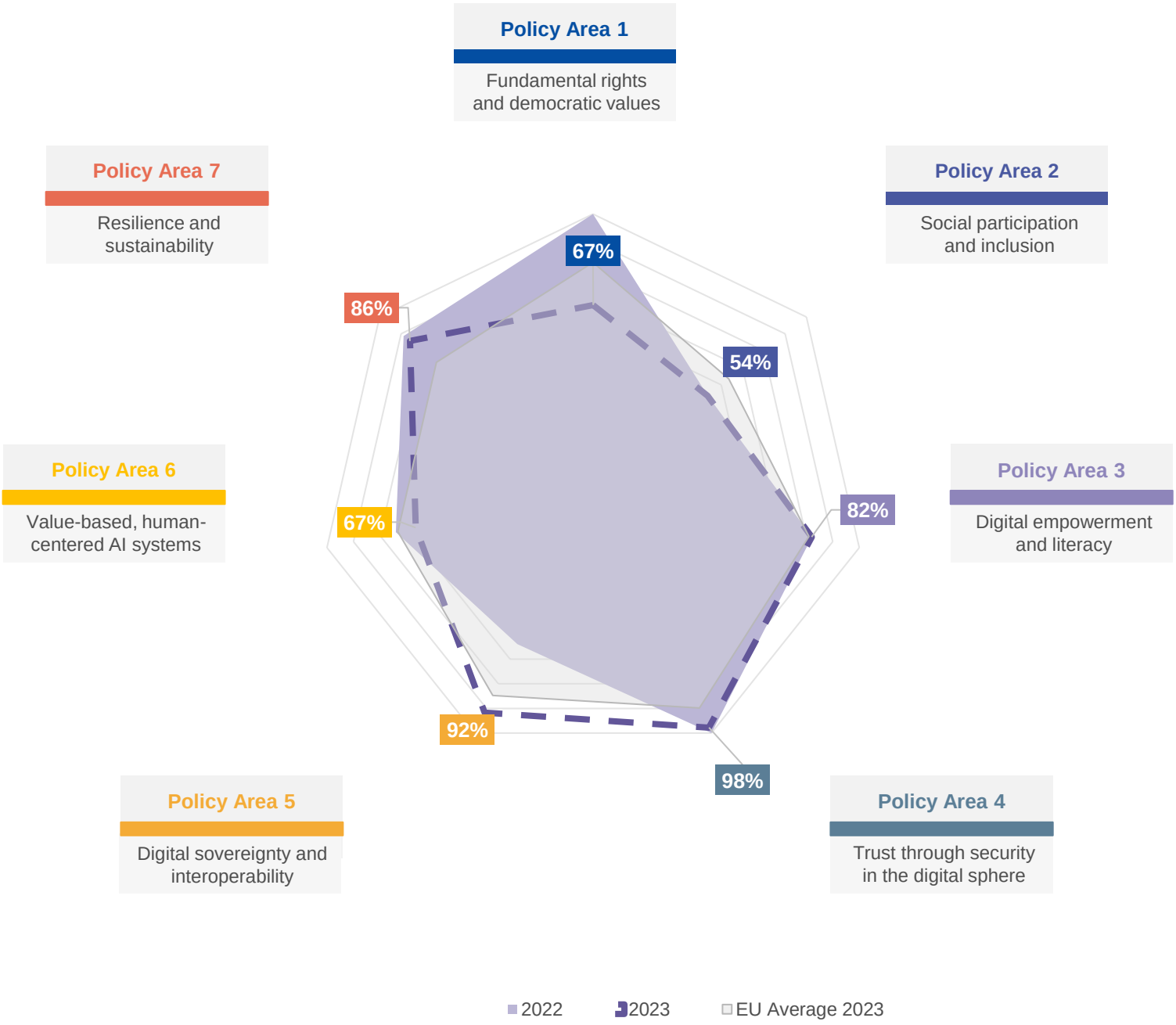


To support the work carried out by the Finnish Tax Administration, automation has been used extensively to improve efficiency. In May 2023, Finland introduced legislation that allows making decisions automatically in the public administration, including the Tax Administration. Automation allows simple decisions to be made instantly and will also save thousands of man-years of work every year. Every decision made automatically must mention that it was made automatically, it must contain a URL to the website where the public body must explain the principles of its automatic decision-making, the laws applied, as well as the sources and types of data used.

FRANCE

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for France | Policy Areas level of implementation

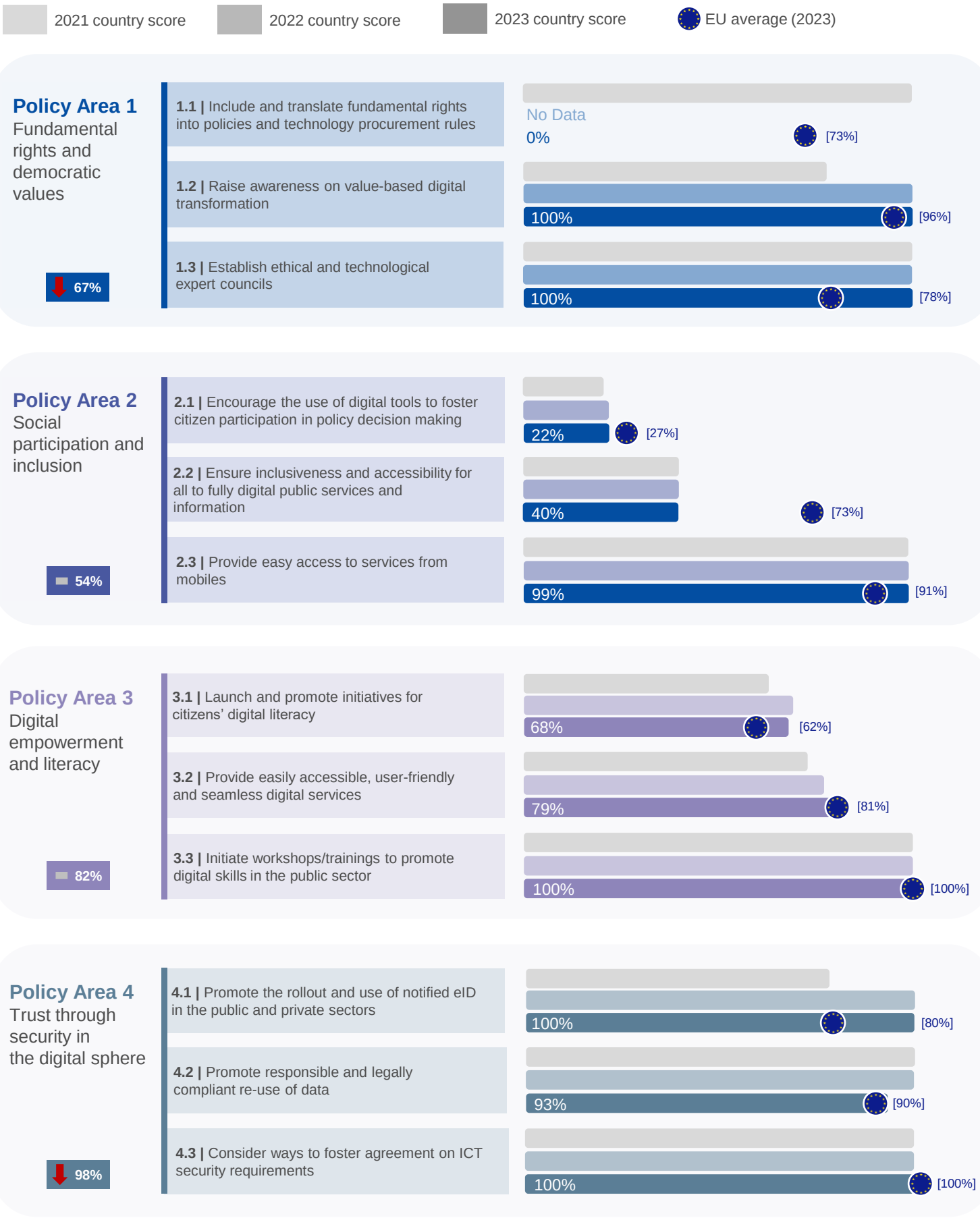


Overall, France's scores in the Berlin Declaration monitoring mechanism 2023 have shown a mixed trend compared to those of 2022. While Policy Areas 1, 4, 6 and 7 have experienced decreases, the score for Policy Area 5 has increased, and Policy Areas 2 and 3 have remained stable.

The most significant change for France compared to 2022 has been recorded for Policy Area 5, with a notable progress of 28 percentage points.

In addition, France scores above the EU average in four out of seven Policy Areas. France scores 67% in Policy Area 1 compared to an EU average of 82%, 54% in Policy Area 2 compared to 64%, 82% in Policy Area 3 above the EU average of 81%, 98% in Policy Area 4 compared to 90%, 92% in Policy Area 5 exceeding the EU average of 85%, 67% in Policy Area 6 compared to 73%, and 86% in Policy Area 7, exceeding the EU average of 73%.

2023 BDM Results for France | Policy Actions level of implementation



2023 BDM Results for France | Policy Actions level of implementation

Policy Area 5
Digital sovereignty and interoperability

92%

5.1 | Jointly work towards agreements on requirements for technology providers

100% [83%]

5.2 | Implement common standards and modular architectures in cross border digital solutions

75% [78%]

5.3 | Work with the EC to provide suitable online public services for EU cross-border use

100% [93%]

Policy Area 6
Digital empowerment and digital literacy

67%

6.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

100% [68%]

6.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

0% [61%]

6.3 | Provide easy access to services from mobiles

100% [90%]

Policy Area 7
Resilience and sustainability

86%

7.1 | Assess and make transparent energy consumption of digital tools and infrastructures

No data
100% [72%]

7.2 | Evaluate the environmental impacts of ICT and extend the lifespan of digital equipment

77% [66%]

7.3 | Initiate expert consultations on appropriate use of digital technologies

100% [87%]

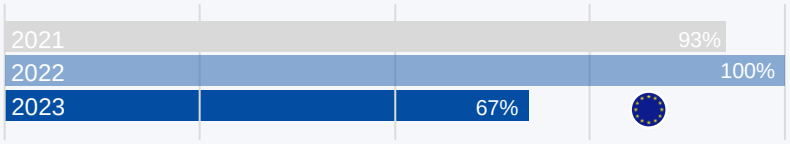
7.4 | Foster the exchange of crisis management data

66% [70%]

Qualitative stories from France

Policy Area 1

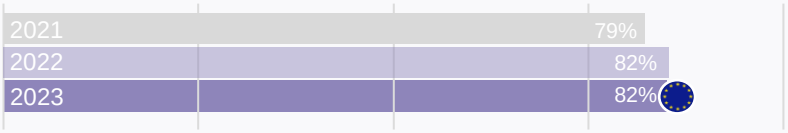
Promote fundamental rights and democratic values in the digital sphere



On 22 November 2022, a dedicated session on the impact of digital transformation on people's daily lives was launched, following President Emmanuel Macron's announcement about the creation of a National Refoundation Council. The challenge that French society is facing demands the collective effort of everyone so as to ensure that digital technology used in daily life enhances citizens' lives instead of causing disruption. Furthermore, DINUM's Beta.gouv department developed an online platform for citizens to provide their input for the National Refoundation Council as a whole.

Policy Area 3

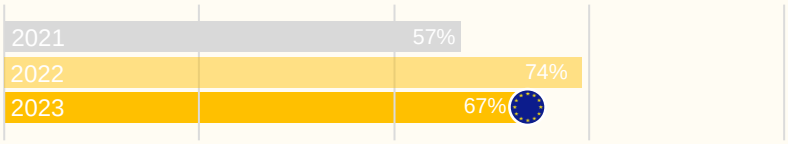
Foster digital empowerment and digital literacy



On the occasion of the second training session for central administration directors on digital transformation, bringing together nearly 200 participants at the National Institute of Public Service (INSP), DINUM is launching in 2024 a new service named “Public Digital Campus” offering to train public servants in digital skills through five key areas. These include deploying PIX across all ministries and engaging public decision makers in the digital transformation of public action through a year-long training plan, among others.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector

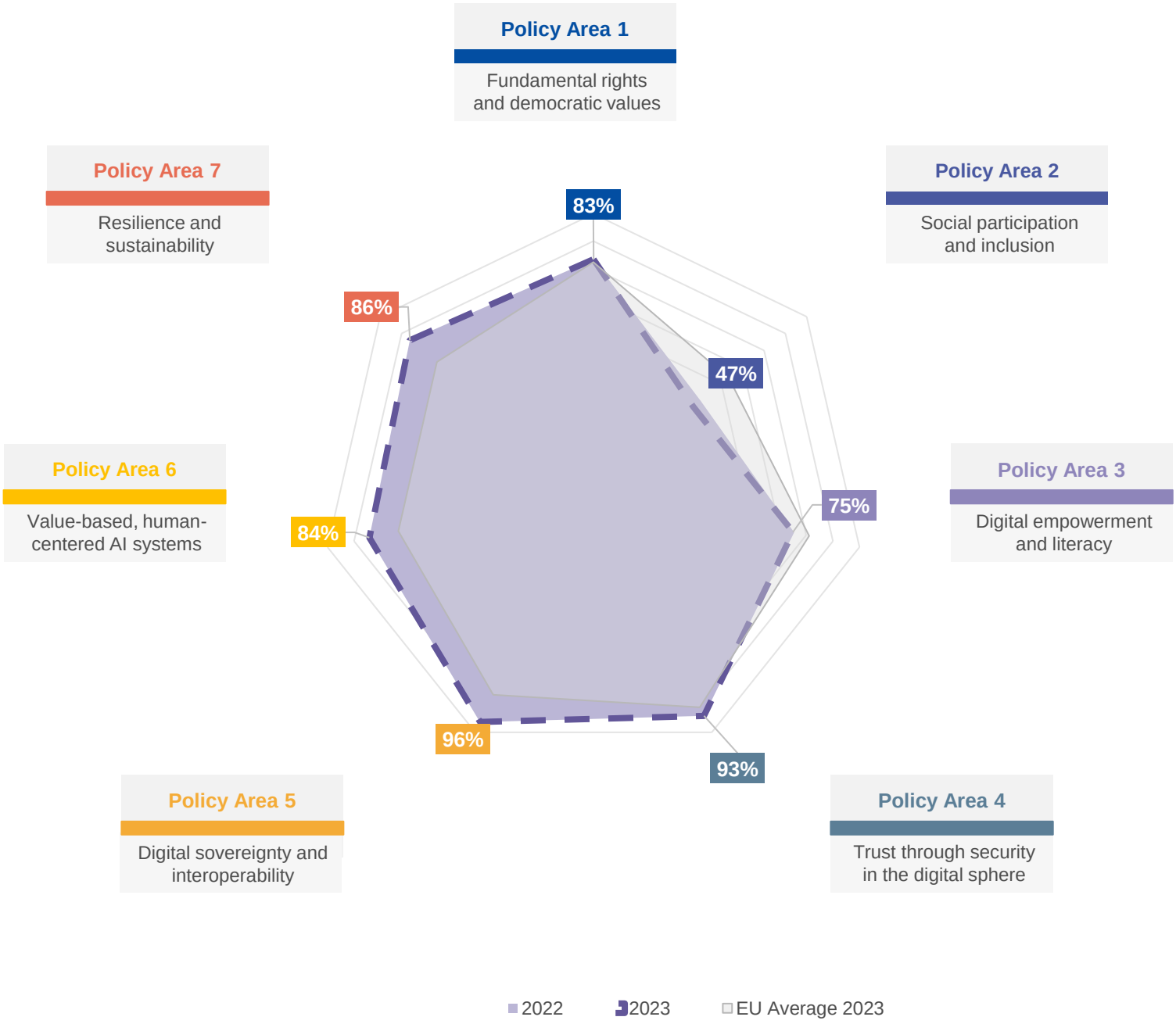


In France, there exists a legal structure that guarantees transparency and notification whenever a decision is made based on algorithmic processing. This ensures that individuals are aware of their rights, whether or not these decisions are made automatically. This can be found in Article 4 of Law No. 2016-1321 of 7 October 2016 for a Digital Republic and Article L311-3-1 in the Code of relations between the public and the administration. As of July 2020, all automated processing must explicitly mention this obligation, or else it will be considered null. Additionally, the same article specifies that the data controller is responsible for maintaining control over algorithmic processing and its evolution in order to explain, in detail and in an understandable manner, to the data subject how the processing has been carried out with respect to them.

GERMANY

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Germany | Policy Areas level of implementation

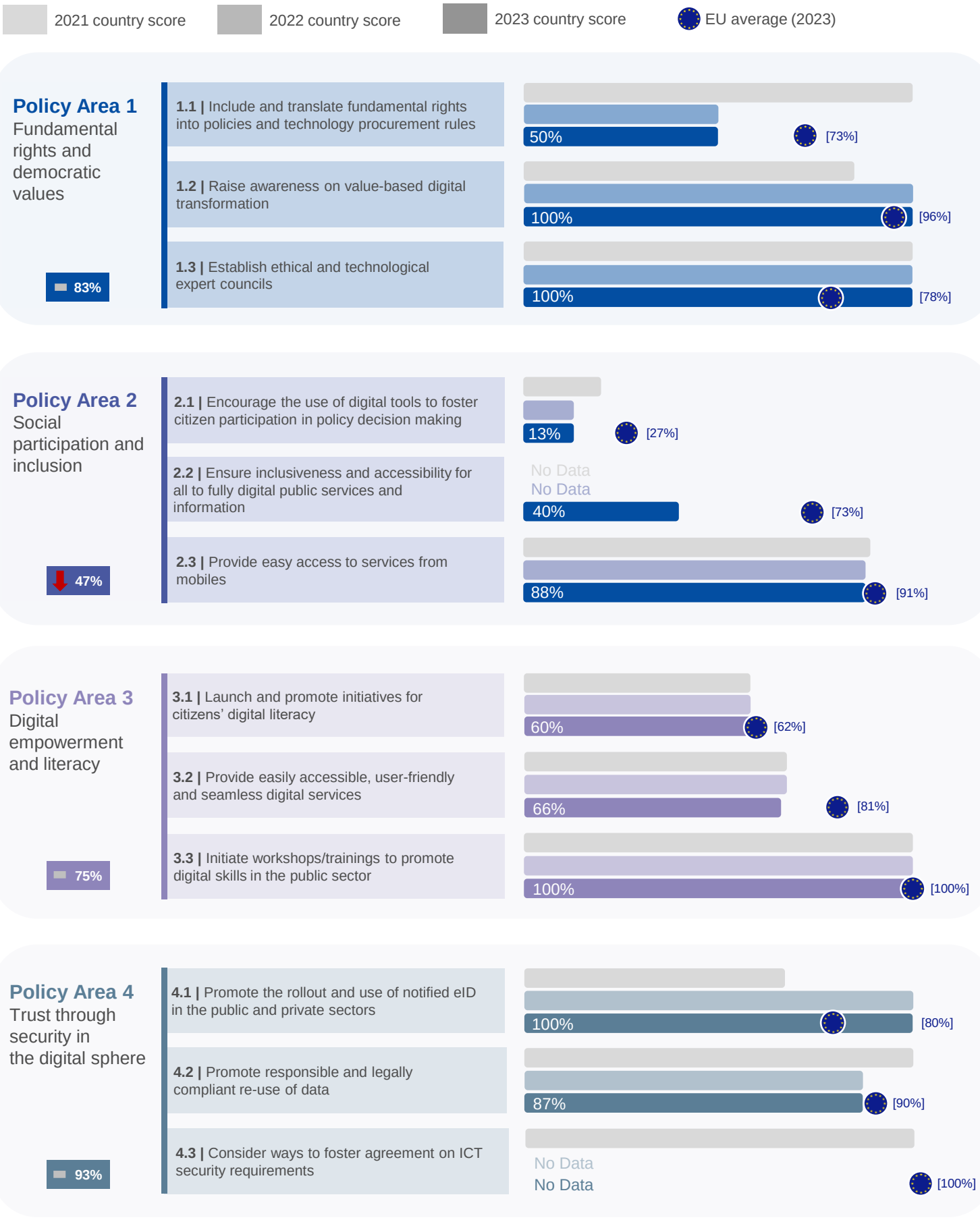


Overall, Germany's scores in the Berlin Declaration monitoring mechanism 2023 have shown a consistent performance compared to those of 2022. While Policy Area 2 has experienced a slight decrease, all other Policy Areas have remained stable.

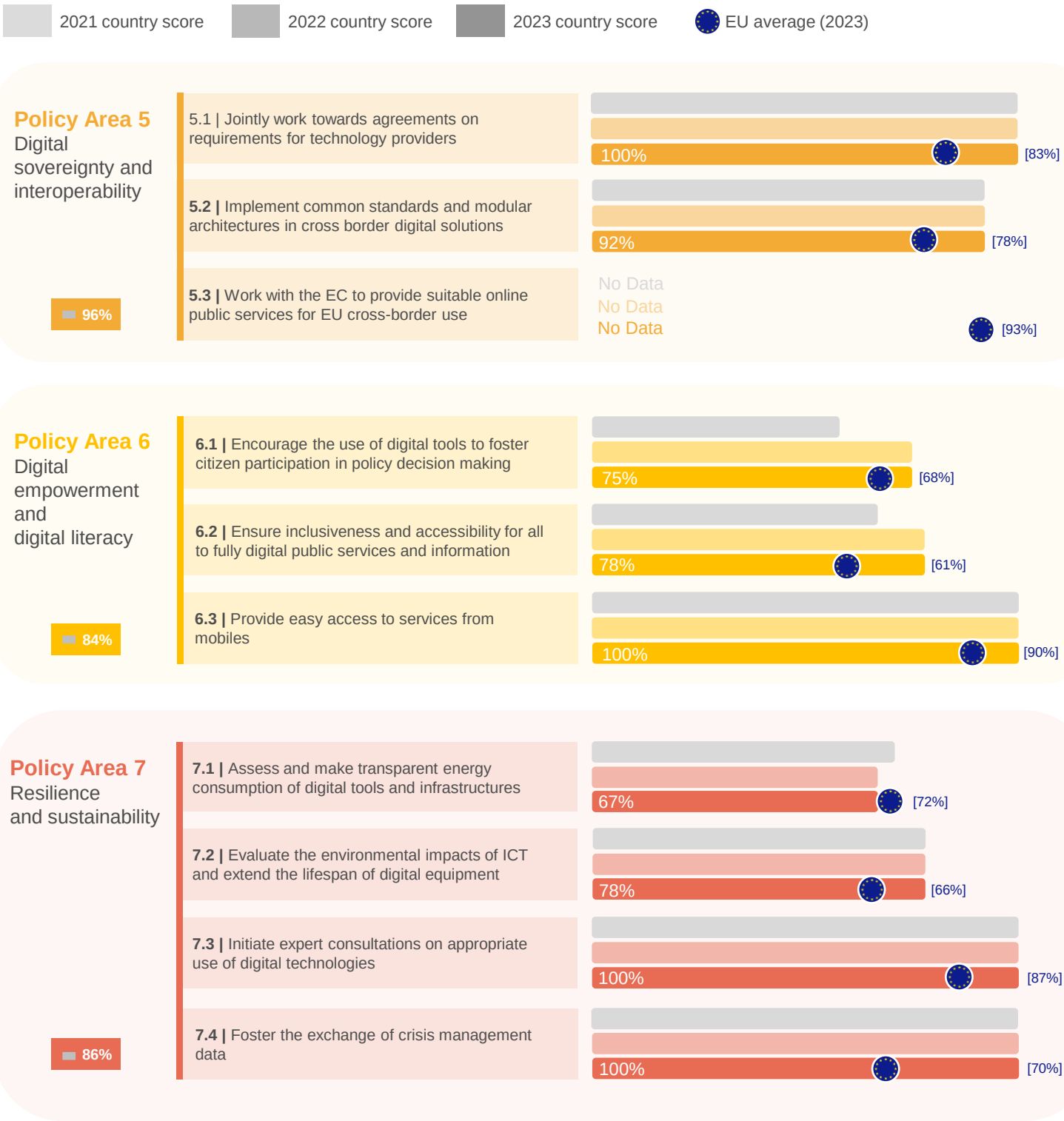
The most significant change for Germany compared to 2022 has been recorded for Policy Area 2, which decreased by 3 percentage points..

In addition, Germany scores above the EU average in all seven Policy Areas, except for Policy Areas 2 and 3. Germany scores 83% in Policy Area 1 compared to an EU average of 82%, 47% in Policy Area 2 compared to 64%, 75% in Policy Area 3 below the EU average of 81%, 93% in Policy Area 4 compared to 90%, 96% in Policy Area 5 exceeding the EU average of 85%, 84% in Policy Area 6 compared to 73%, and 86% in Policy Area 7, exceeding the EU average of 73%.

2023 BDM Results for Germany | Policy Actions level of implementation



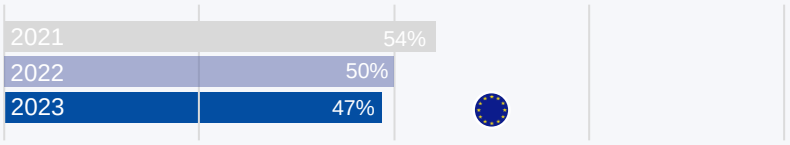
2023 BDM Results for Germany | Policy Actions level of implementation



Qualitative stories from Germany

Policy Area 2

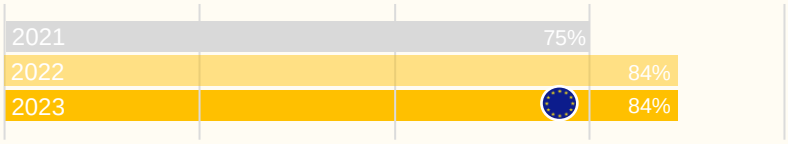
Enhance social participation and digital inclusion



Alongside the process of developing a target architecture framework for the digitalisation of the public administration in Germany, an accompanying public consultation process has been set up in October 2023 by making use of the open source platform for the public administration "Open CoDE". This process fosters participation of relevant stakeholders, from citizens to civil servants to private businesses and companies, as well as to software developers in public administrations, and allows the Federal Ministry of the Interior and Community (BMI) to use the knowledge of the public to design a more user-oriented architecture framework for the digitalisation of the public administration. Since then, over 124 participating organisations have been actively participating in developing a target architecture framework, ensuring accessibility and inclusiveness from the very beginning.

Policy Area 6

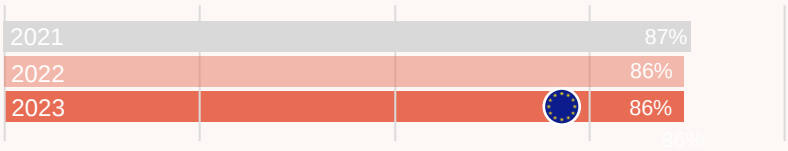
Create value-based, human-centred AI systems for use in the public sector



Germany is in the process of establishing a “Data Institute” to standardise and provide better access to data and explore fiduciary and data licensing models. A commission has been invited to recommend tasks and working methods for the institute. The Federal Ministry of Economic Affairs and Climate Action and the Federal Ministry of the Interior and Community will develop a governance model. Moreover, the Federal Ministry of Labor and Social Affairs has established the “AI in Labour and Social Administration” network to responsibly implement AI applications in social and labour administration, with self-committed guidelines published in November 2022. The network's member agencies will apply and test the guidelines in actual AI projects, share experiences, and modify the guidelines accordingly to ensure quality, safety, and human-centeredness in AI implementation.

Policy Area 7

Foster resilience and sustainability in the digital society

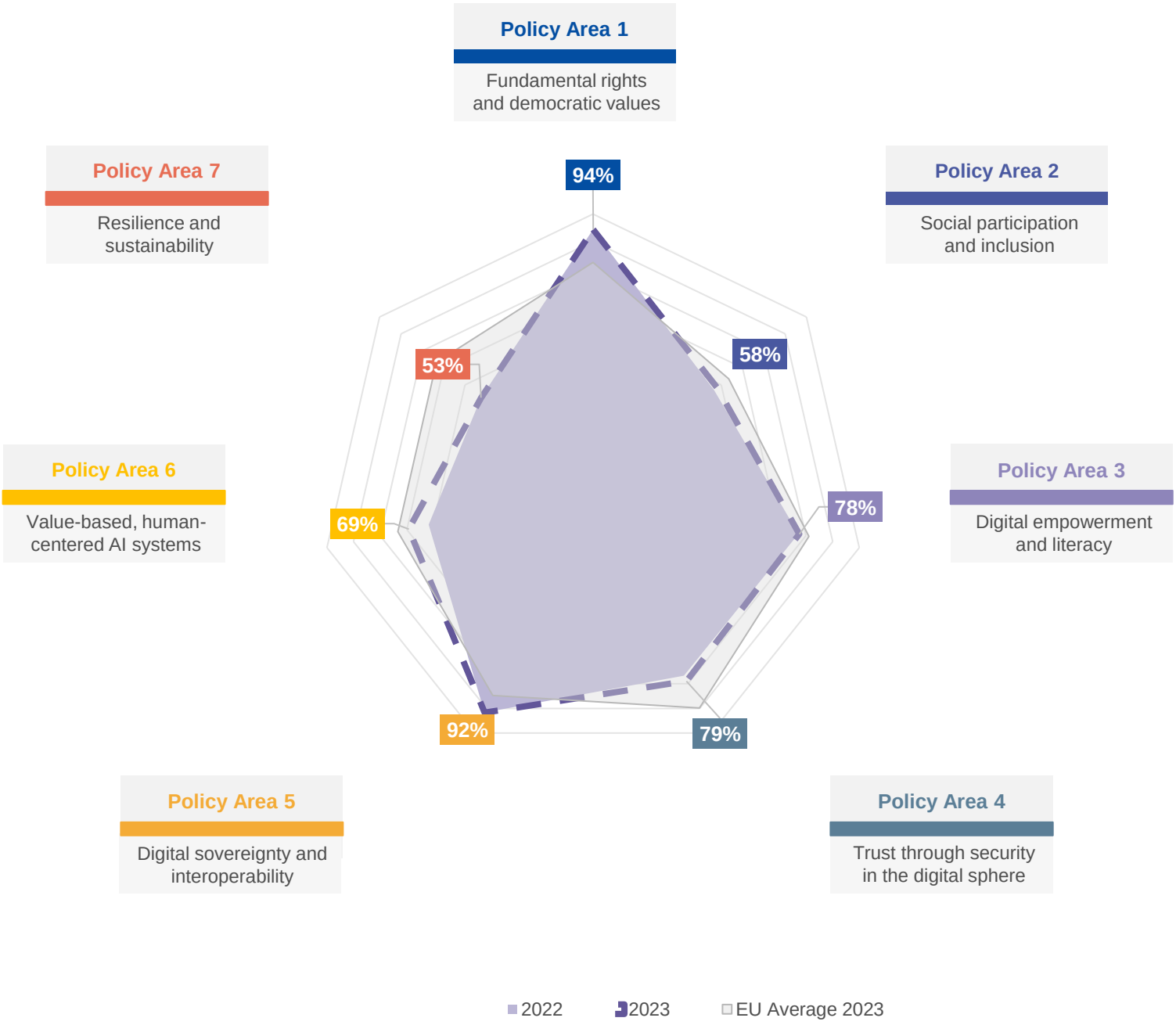


In March 2023, Germany's Digitalisation Strategy for Health and Care has been published. The strategy gives the digital transformation of healthcare a clear direction by pursuing a holistic approach that is oriented towards people. In concrete terms, this means that it contributes to overcoming sector boundaries and consistently focuses on the needs of those providing care and those in need of care. The strategy also addresses sustainability and resilience aspects. Furthermore, a BMUV Stakeholder Community concerned with the promotion of sustainable practices in the digitalisation industry organised a six-session workshop series on green coding. During the workshops, series software experts taught the community members how to increase environmental sustainability and energy efficiency of their software.

GREECE

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Greece | Policy Areas level of implementation

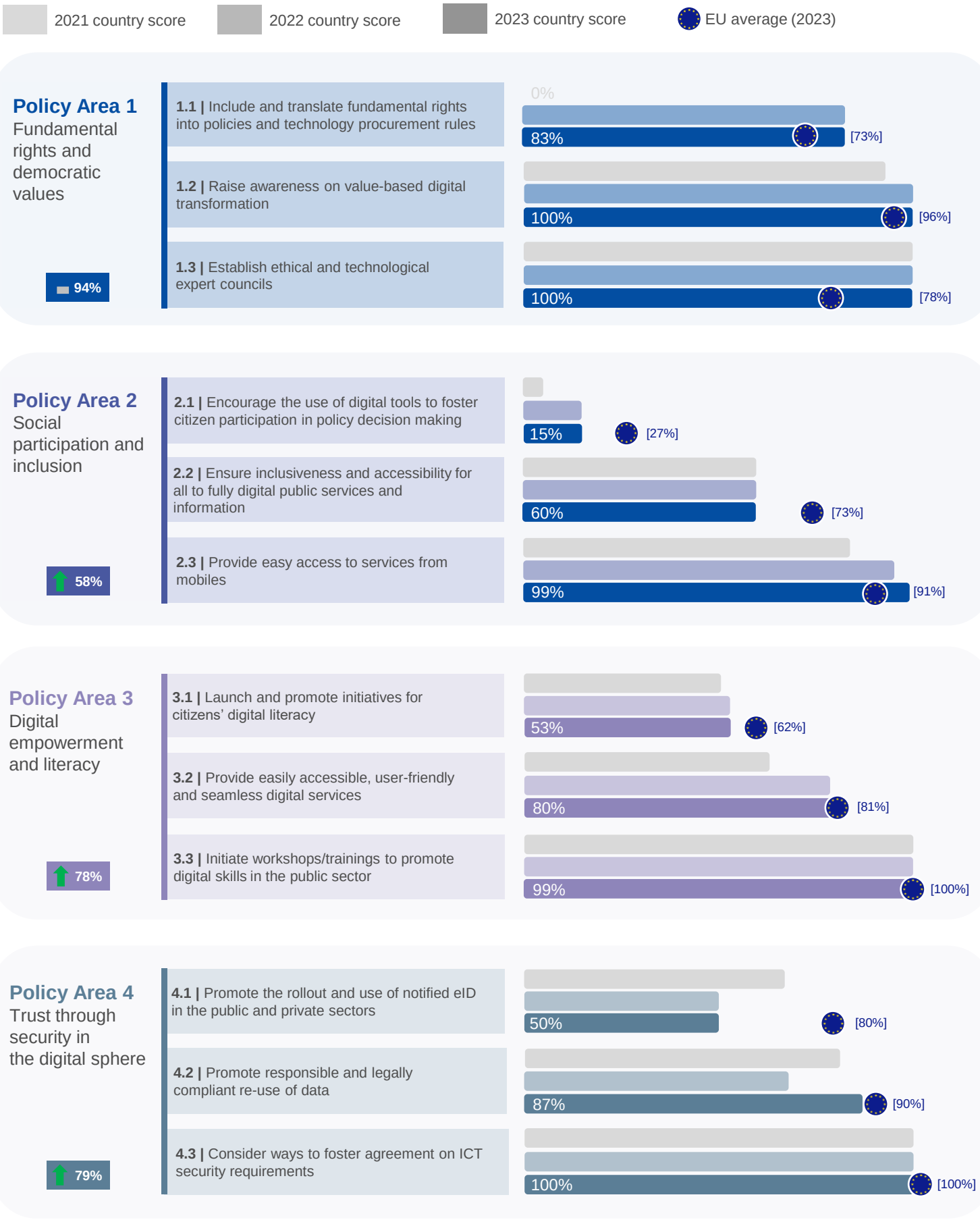


Overall, Greece's scores in the Berlin Declaration monitoring mechanism 2023 have increased compared to those of 2022, except for Policy Areas 1, 5 and 7, which have remained constant. While Policy Areas 2 and 3 both increased by 1 percentage point compared to last year, Policy Area 4 has seen a notable increase of 2 percentage points.

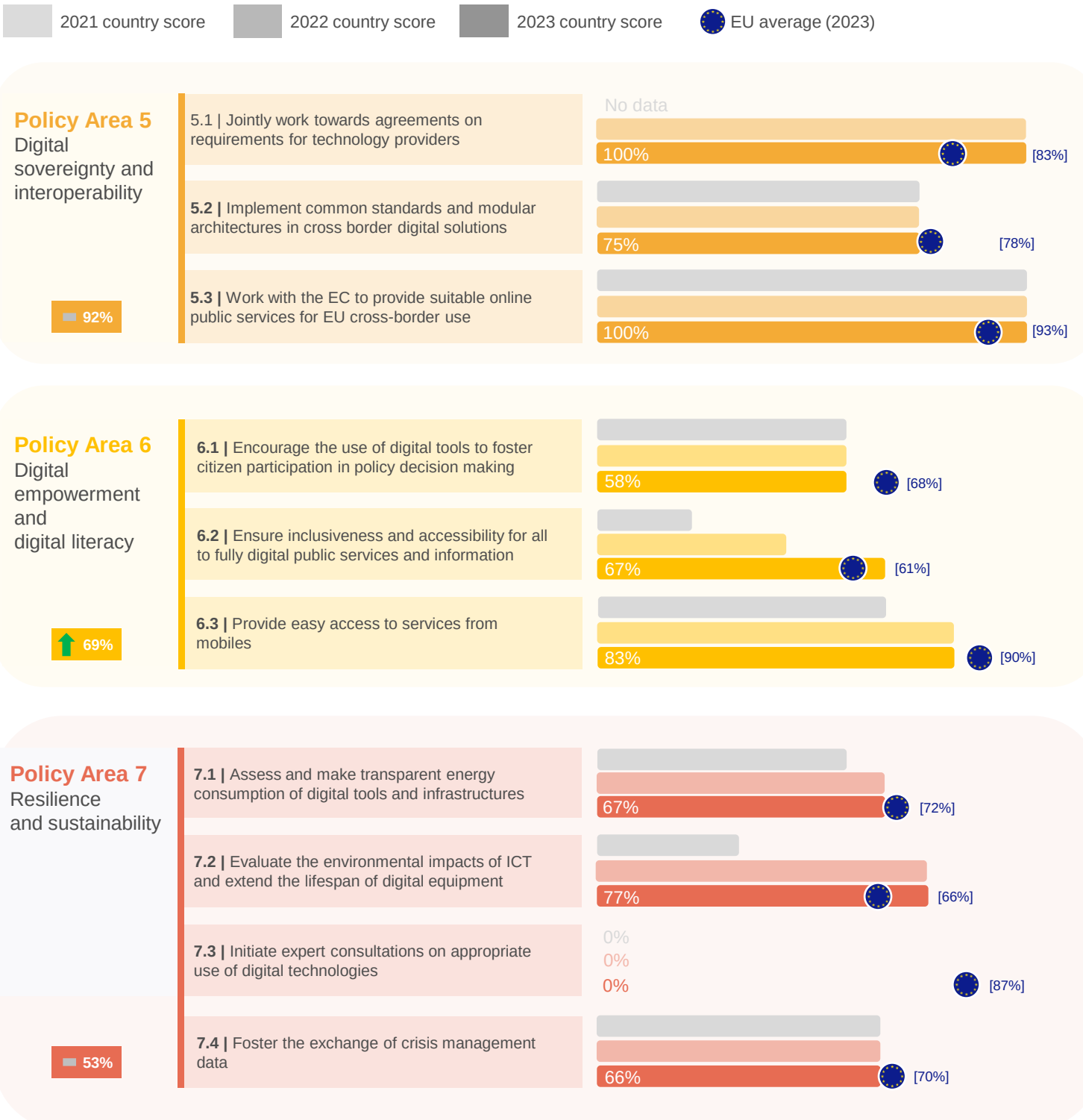
The most significant increases for Greece compared to 2022 have been recorded for Policy Area 6, with a remarkable progress of 7 percentage points.

In addition, Greece scores above the EU average in three out of seven Policy Areas. Greece scores 94% in Policy Area 1 compared to an EU average of 82%, 78% in Policy Area 2 compared to 64%, 77% in Policy Area 3 compared to 81%, 79% in Policy Area 4 compared to 90%, 92% in Policy Area 5 compared to 85%, 69% in Policy Area 6 compared to 73%, and 53% in Policy Area 7 compared to 73%.

2023 BDM Results for Greece | Policy Actions level of implementation



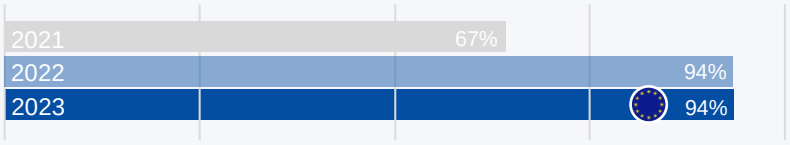
2023 BDM Results for Greece | Policy Actions level of implementation



Qualitative stories from Greece

Policy Area 1

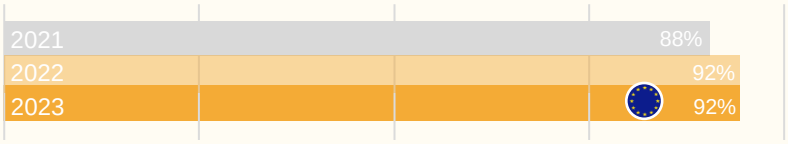
Promote fundamental rights and democratic values in the digital sphere



A very emblematic action for the promotion of fundamental rights and democratic values in the digital sector is the educational programme of the National Center for Public Administration and Self-government for the promotion of equality of LGBTQI+ people, entitled "Ensuring equality and rights of people of the LGBTQI+ community in the public administration". This action is part of the national strategy for the rights of people of the LGBTQI+ community, with puts emphasis on the development and upgrading of the skills of the human resources of the wider public sector, in the direction of approaching and managing diversity both in the internal and external working environment. It is addressed to public administration officials as well as teachers. The main purpose of the programme is to raise awareness and consolidate good practices for the protection of LGBTQI+ rights.

Policy Area 5

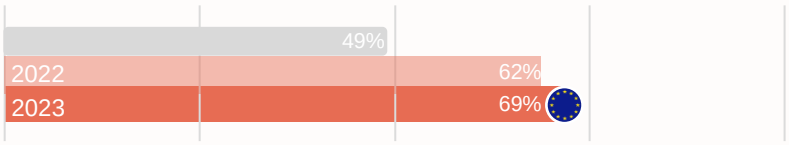
Strengthen Europe's digital sovereignty and interoperability



Greece plays an active role in the formation of agreements, solutions, and actions that promote digital sovereignty, such as the "gov.gr wallet" and "My health app". Regarding interoperability, the GAIA-X Hub Greece is an initiative that aims to bring Greek companies that wish to share data, provide data cloud and sharing services, and offer added value services to the European GAIA-X ecosystem. Moreover, GAIA-X Hub Greece aims to contribute to the requirements, design, and evolution of GAIA-X by bringing the targets of the national industry. Similarly, HETiA is an alliance of highly innovative industrial and academic performers, promoting digital technology proliferation and entrepreneurship in emerging technology domains.

Policy Area 7

Foster resilience and sustainability in the digital society

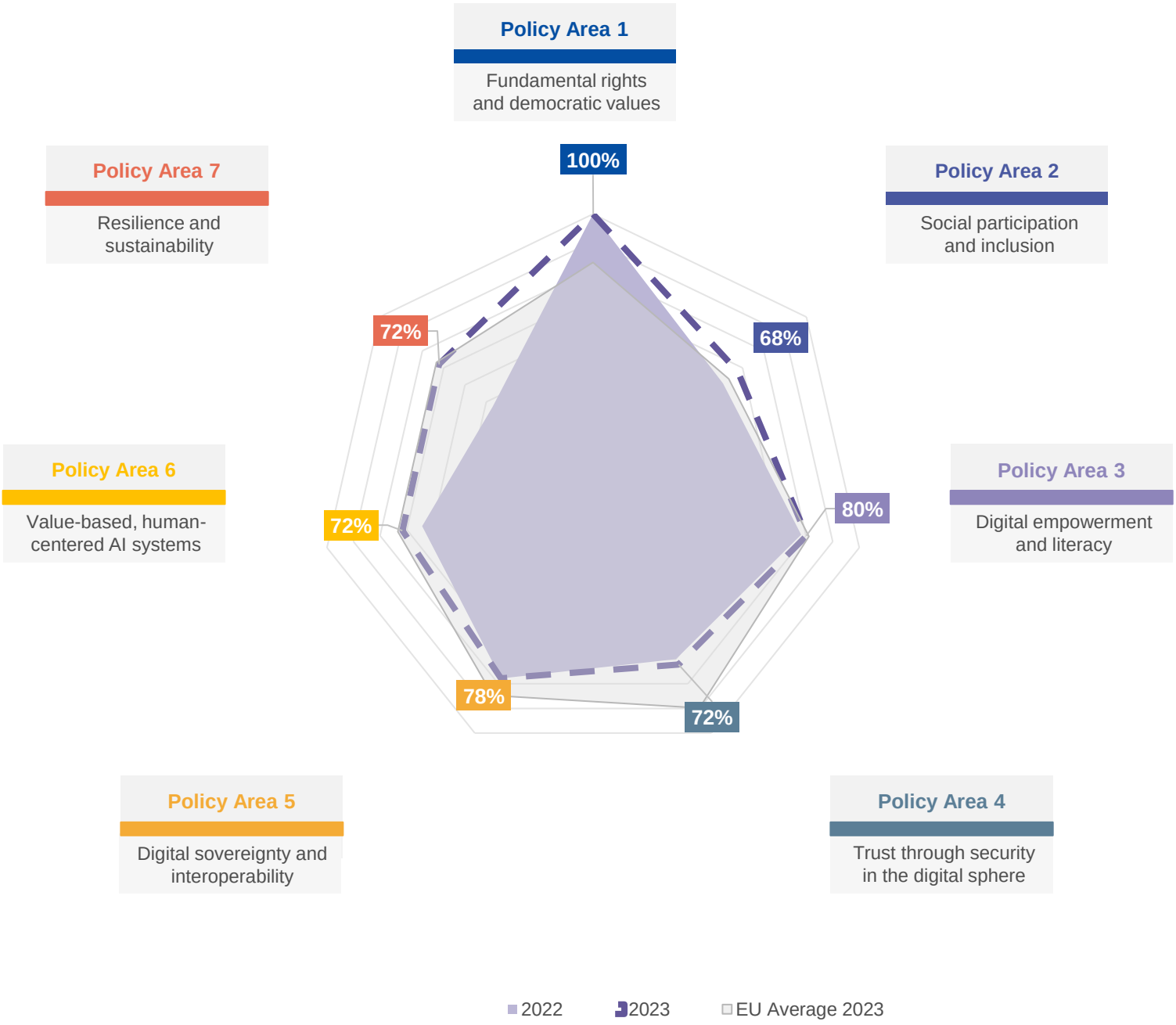


The development of the mAIgov digital assistant, integrated into the gov.gr digital portal, has simplified for citizens the process of searching for relevant information in the services of gov.gr and administrative procedures of the National Register of Administrative Procedures "MITOS". It is the first widespread application of AI in the Greek public sector. Apart for initiatives in the field of AI, Greece is focused on the following innovative technologies: high-performance computing, mobile communications and 5G, as well as space technologies and applications.

HUNGARY

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Hungary | Policy Areas level of implementation



Overall, Hungary's scores in the Berlin Declaration monitoring mechanism 2023 have increased compared to those of 2022, especially for Policy Area 7, which has seen a notable increase of 25 percentage points. While Policy Area 1 encounters no change compared to last year, Policy Area 4 has seen a slight increase of 2 percentage points. Policy Area 2 has increased by 7 percentage points, Policy Area 3 by 2 percentage points, Policy Area 5 remains unchanged, and Policy Area 6 by 8 percentage points.

The most significant increases for Hungary compared to 2022 have been recorded for Policy Area 7, with a remarkable progress of 25 percentage points, and Policy Area 6, which received an increase of 8 percentage points.

In addition, Hungary scores above the EU average in four out of seven Policy Areas. Hungary scores 100% in Policy Area 1 compared to an EU average of 82%, 68% in Policy Area 2 compared to 64%, 80% in Policy Area 3 compared to 81%, 72% in Policy Area 4 compared to 90%, 78% in Policy Area 5 compared to 85%, 72% in Policy Area 6 compared to 73%, and 72% in Policy Area 7 compared to 73%.

2023 BDM Results for Hungary | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

100%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

No data
100% [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

100% [78%]

Policy Area 2
Social participation and inclusion

68%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

0%
8% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

100% [73%]

2.3 | Provide easy access to services from mobiles

96% [91%]

Policy Area 3
Digital empowerment and literacy

80%

3.1 | Launch and promote initiatives for citizens' digital literacy

64% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

77% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100% [100%]

Policy Area 4
Trust through security in the digital sphere

72%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

17% [80%]

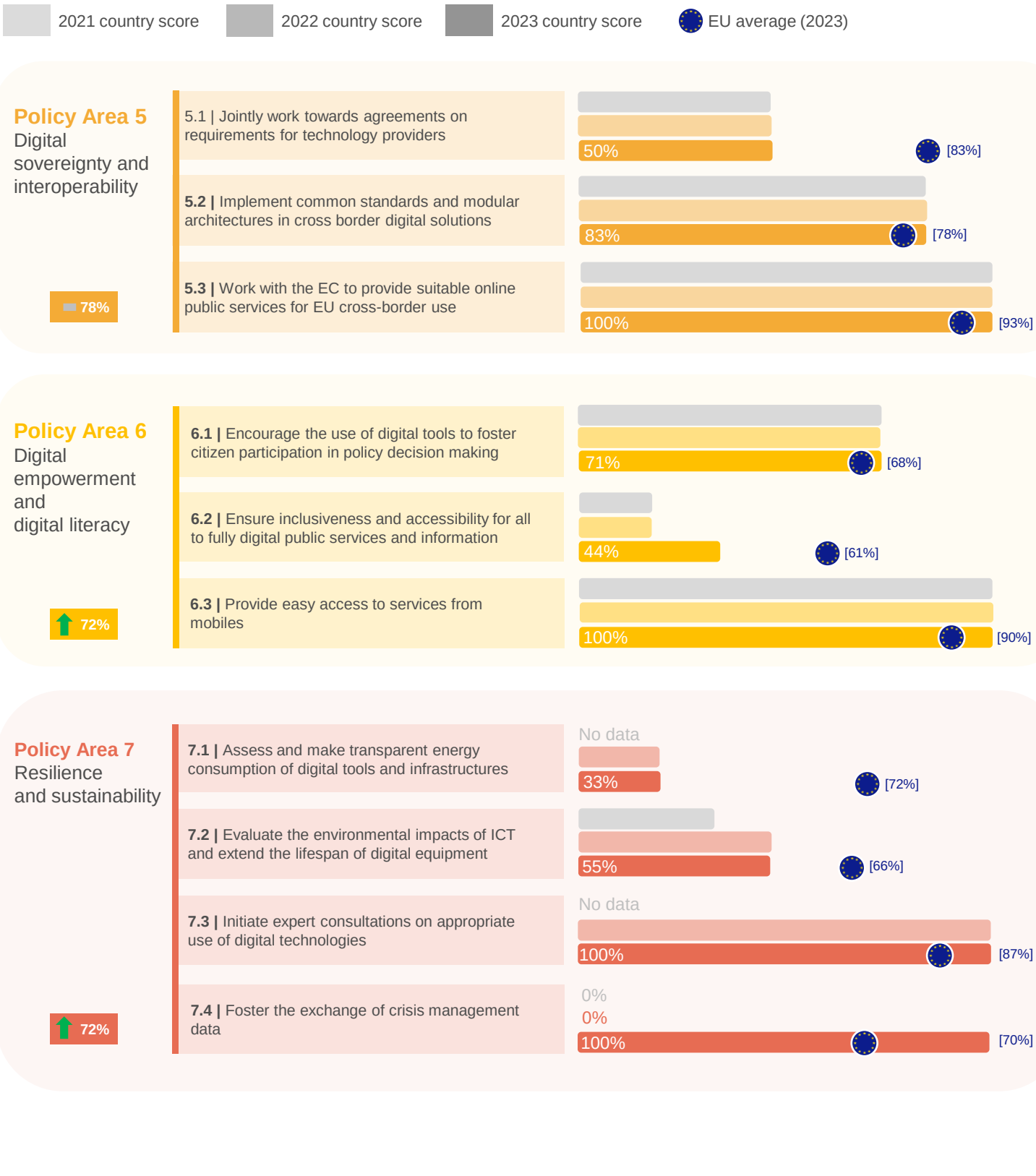
4.2 | Promote responsible and legally compliant re-use of data

100% [90%]

4.3 | Consider ways to foster agreement on ICT security requirements

100% [100%]

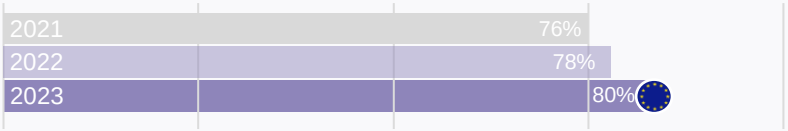
2023 BDM Results for Hungary | Policy Actions level of implementation



Qualitative stories from Hungary

Policy Area 3

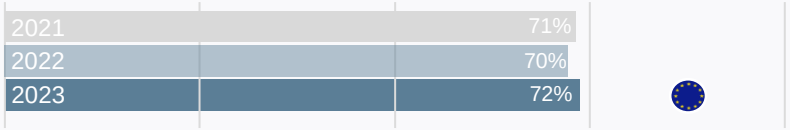
Foster digital empowerment and digital literacy



The renewed National Core Curriculum, which entered into force in 2020, introduced a new subject called Digital Culture. The focal points have shifted to algorithmic thinking, programming skills, and digital citizenship competences. The curriculum of Digital Culture ensures that every pupil who finishes school has all the necessary digital skills. Along with the new curriculum, new digital textbooks are available free of charge for every pupil on the Hungarian National Public Education Portal. All teachers in public education were also invited to participate in an in-service training programme to improve their digital skills and their digital pedagogical skills. The Hungarian Government also supports digital education by providing notebooks for every 5-12th grader pupil in a one-to-one model, in a phase-in system that started in 2022.

Policy Area 4

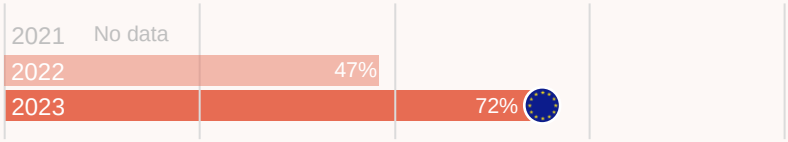
Strengthen trust through security in the digital sphere



In line with the objectives of the National Digital Citizenship Programme, the new Digital Citizen e-identification will be launched in the second half of 2024 and, further on, based on this new solution, the wallet functionality ensuring compliance with the eIDAS regulation and the implementing regulations under preparation is planned to be implemented by Q1 2026. The new Digital Citizen e-identification has to be introduced as an identification means of "high" level of assurance. The basic principle of the development is that citizens have control over the use of their data, and the use of the application will be voluntary.

Policy Area 7

Foster resilience and sustainability in the digital society

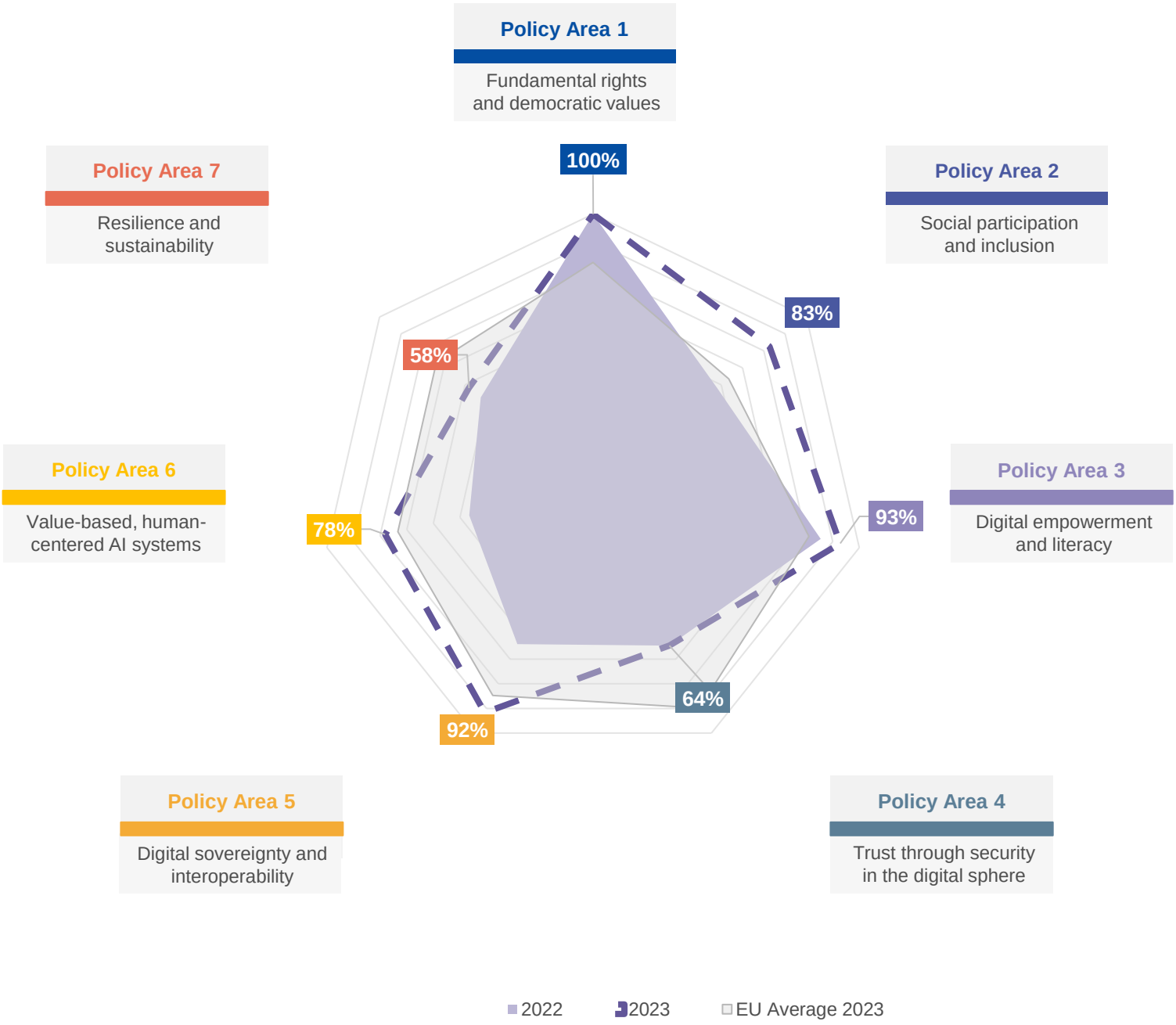


According to the Operational Programmes 2021-2027 (primarily DROP Plus, secondarily EDIOP Plus), it is foreseen to develop IT solutions supporting the efficient use of energy for public service institutions. The purpose of the call is to create an energy management system capable of supporting the increase of energy efficiency, which can aid the energy efficiency objectives of public service institutions efficiently, and in line with the needs of the actors involved (i.e., it provides access to past, current, and expected future institutional energy consumption and data production, which can thus be used to support the decision-making process). The developed solution can demonstrate the effectiveness and efficiency of energy efficiency investments implemented by public service institutions. The goal is to create a software system that helps manage energy data.

IRELAND

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Ireland | Policy Areas level of implementation

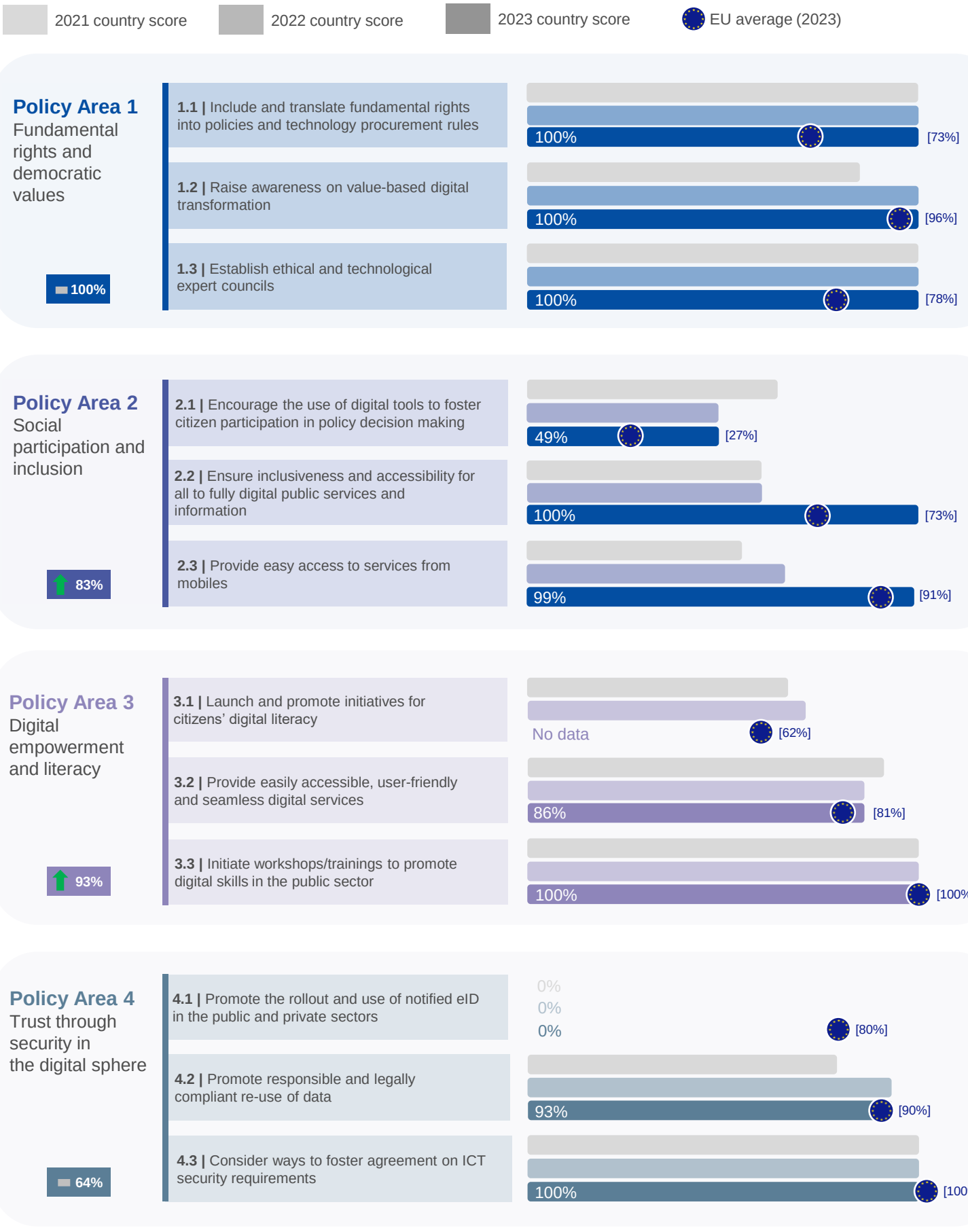


Overall, Ireland's scores in the Berlin Declaration monitoring mechanism 2023 have increased compared to those of 2022, except for Policy Areas 1 and 4, which have remained the same. While Policy Area 1 scored the maximal score, Policy Area 2 has seen a significant increase of 25 percentage points, Policy Area 3 has increased by 7 percentage points, Policy Area 5 by 28 percentage points, and Policy Area 6 by 31 percentage points.

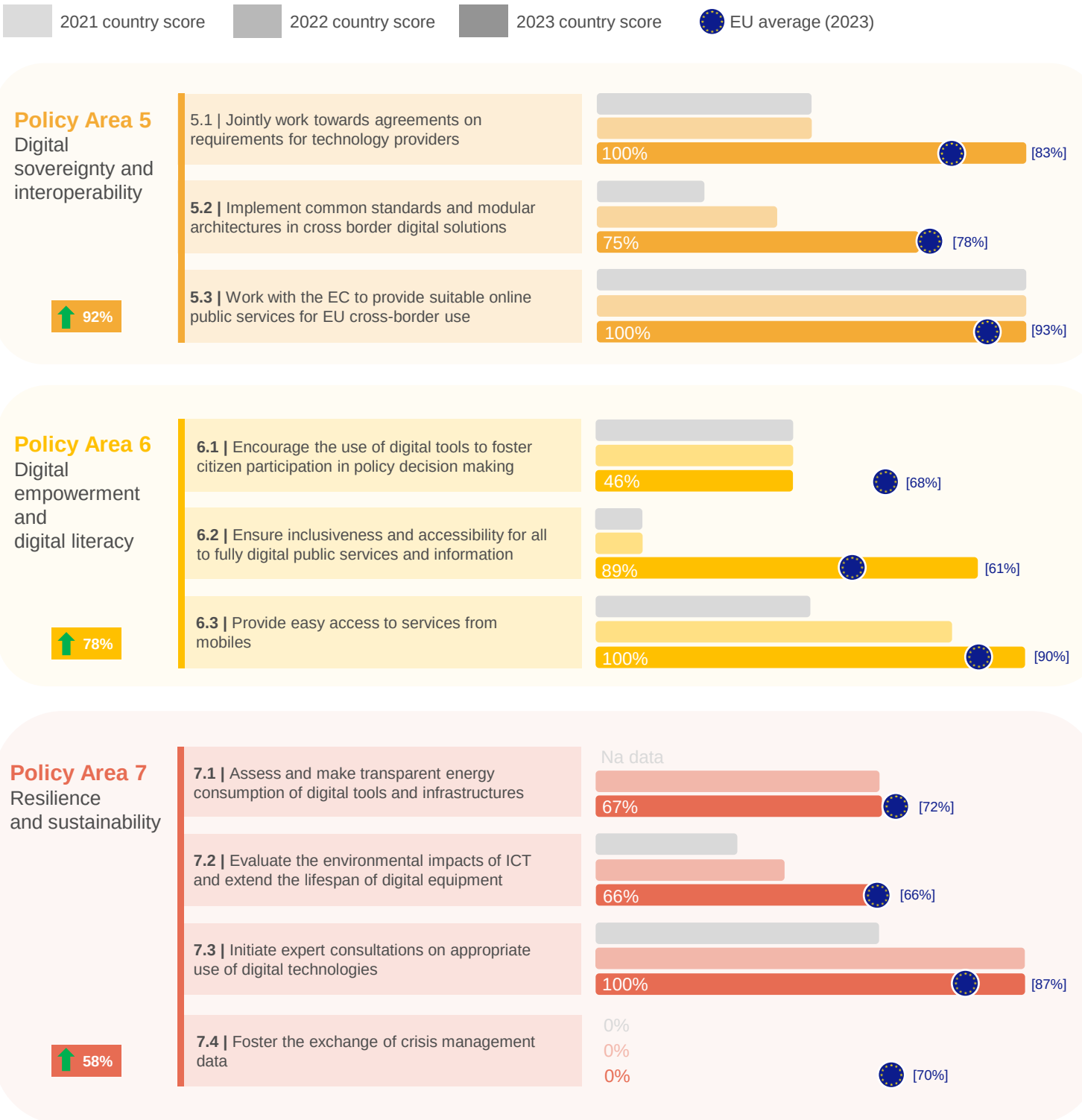
The most significant increases for Ireland compared to 2022 have been recorded for Policy Area 6, with a progress of 31 percentage points, and Policy Area 5, which received an increase of 28 percentage points.

In addition, Ireland scores above the EU average in five out of seven Policy Areas. Ireland scores 100% in Policy Area 1 compared to an EU average of 82%, 83% in Policy Area 2 compared to 64%, 93% in Policy Area 3 compared to 81%, 64% in Policy Area 4 scoring below the EU average of 90%, 92% in Policy Area 5 compared to 85%, 78% in Policy Area 6 compared to 73%, and 58% in Policy Area 7 compared to 73%.

2023 BDM Results for Ireland | Policy Actions level of implementation



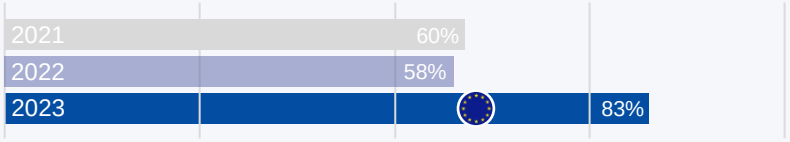
2023 BDM Results for Ireland | Policy Actions level of implementation



Qualitative stories from Ireland

Policy Area 2

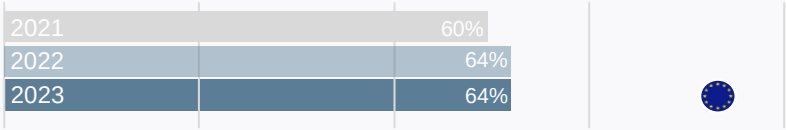
Enhance social participation and digital inclusion



Ireland's National Digital Strategy: Harnessing Digital and Public Service Digital Strategy: Connecting Government 2030 ensure that services are delivered in an equitable, inclusive and sustainable manner with better service to those who need assistance and opportunities to co-create government services. Moreover, as promised in the latest update on Harnessing Digital, a new AI Advisory Council has been established, allowing a range of representatives to advise Government on AI policy. In line with the country's National AI Strategy, the Enterprise Digital Advisory Forum brings together representatives of enterprises of all sizes. Furthermore, the Digital Inclusion Roadmap aims to make digital inclusion a core part of designing and delivering quality digital public services and to ask users of such services for their views when designing digital public services. New national Health and Digital Wallet mobile apps also are being tested to provide easy access to services to citizens through the mobile channel.

Policy Area 4

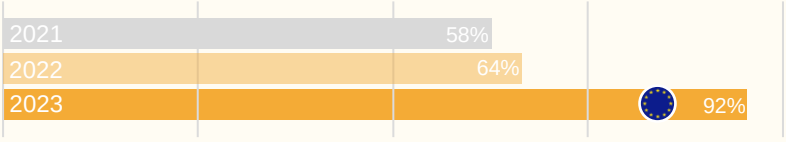
Strengthen trust through security in the digital sphere



Ireland's Data Governance Board was established to facilitate increased data sharing and the innovative use of data across all public bodies. In this context, the Data Sharing Framework was created to provide a suite of new guidelines, rules and procedures for sharing data across Public Service Bodies (PSBs), and the Data Sharing Playbook provides PSBs with a template on how to prepare and use data sharing with other organisations. MyGovID now has over 2.2 million verified accounts, and a review is currently underway to access it against the requirements of an eID at substantial/high level of assurance. The country's Public Service Cyber Security Baseline Standards have been published, and the international standard to manage information security ISO27001 has been awarded. What is more, competent authority for public services regarding the forthcoming Network and Information Systems (NIS) Directive 2 is about to be nominated and will work with Ireland's National Cyber Security Centre.

Policy Area 5

Strengthen Europe's digital sovereignty and interoperability

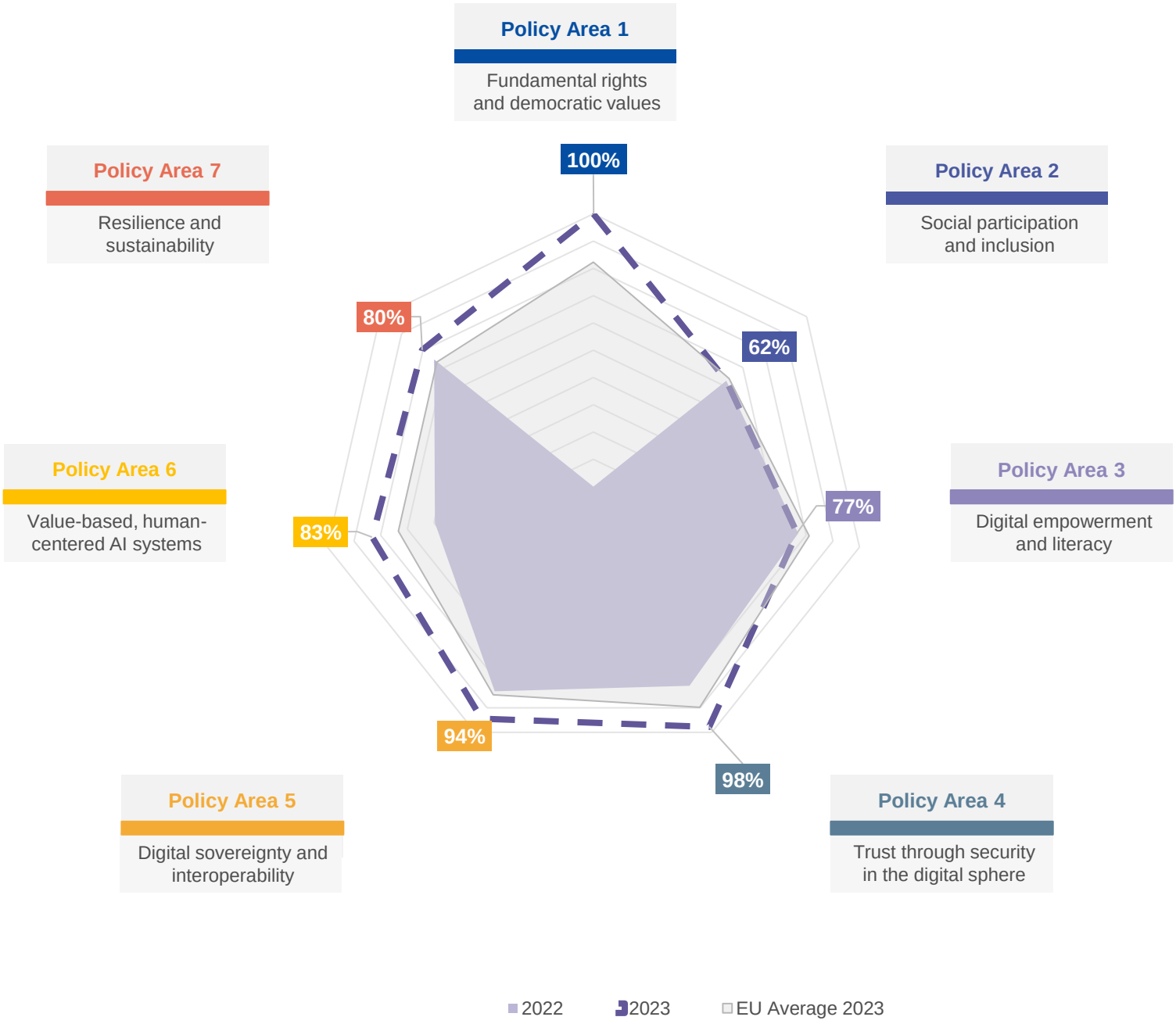


Ireland provides numerous options for Public Service Bodies to aid with the working towards common solutions and modular architecture. The Office of Government Chief Information Officer established the Build to Share programme that delivers a range of successful collaboration tools, platforms and services for public service bodies that helps reduce both cost and time and provides unified secure updates. Building blocks and API references also are provided, including eID, Content Management, Data Collection, Case Management, Information Mediator, and Digital Wallet that are used in the national implementation of the Once Only Technical System and the country's upcoming Life Events Services, Digital Wallet and Government credentials.

ITALY

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Italy | Policy Areas level of implementation



Overall, Italy's scores in the Berlin Declaration monitoring mechanism 2023 have increased compared to those of 2022, except for Policy Area 2 and Policy Area 3, which have remained the same. While Policy Area 1 encountered no data for 2022, it has achieved a perfect score of 100% in 2023. Policy Area 4 has seen a remarkable increase of 17 percentage points. Policy Area 3 has remained stable with no change, while Policy Area 5 has increased by 11 percentage points, and Policy Area 6 has seen a notable increase of 23 percentage points. Policy Area 7 has also seen an increase of 5 percentage points.

The most significant increases for Italy compared to 2022 have been recorded for Policy Area 4, with a remarkable progress of 17 percentage points, and Policy Area 6, which received an increase of 23 percentage points.

In addition, Italy scores below the EU average in two out of seven Policy Areas. Italy scores 100% in Policy Area 1 compared to an EU average of 82%, 62% in Policy Area 2 matching the EU average of 64%, 77% in Policy Area 3 compared to 81%, 98% in Policy Area 4 compared to 90%, 94% in Policy Area 5 compared to 85%, 83% in Policy Area 6 compared to 73%, and 80% in Policy Area 7 compared to 73%.

2023 BDM Results for Italy | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

100%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

No data
No data
100% [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

No data
No data
100% [78%]

Policy Area 2
Social participation and inclusion

62%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

10% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

80% [73%]

2.3 | Provide easy access to services from mobiles

97% [91%]

Policy Area 3
Digital empowerment and literacy

77%

3.1 | Launch and promote initiatives for citizens' digital literacy

58% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

72% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100% [100%]

Policy Area 4
Trust through security in the digital sphere

98%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100% [80%]

4.2 | Promote responsible and legally compliant re-use of data

93% [90%]

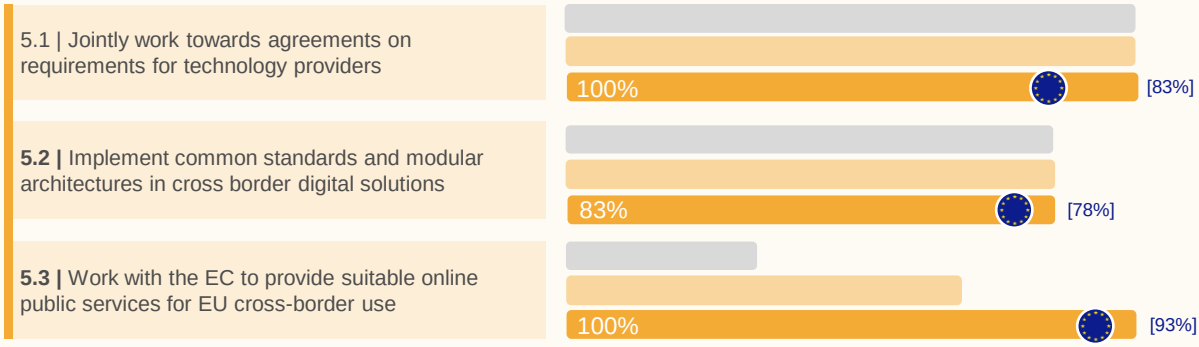
4.3 | Consider ways to foster agreement on ICT security requirements

100% [100%]

2023 BDM Results for Italy | Policy Actions level of implementation

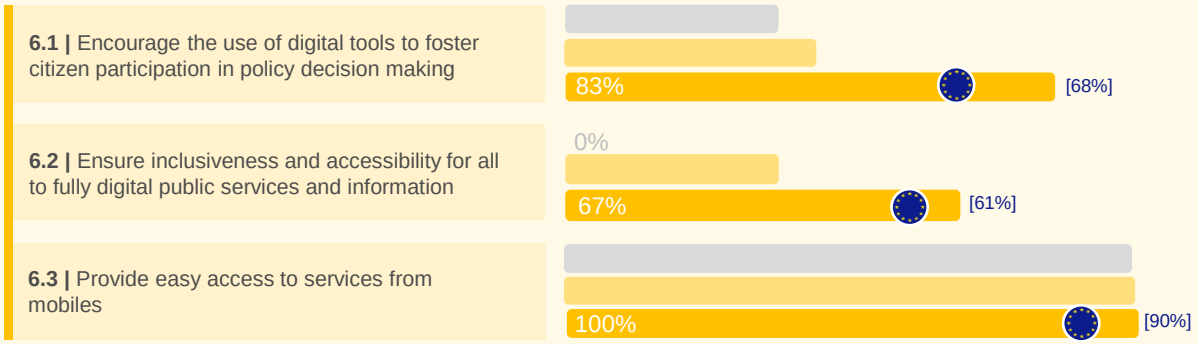
Policy Area 5
Digital sovereignty and interoperability

94%



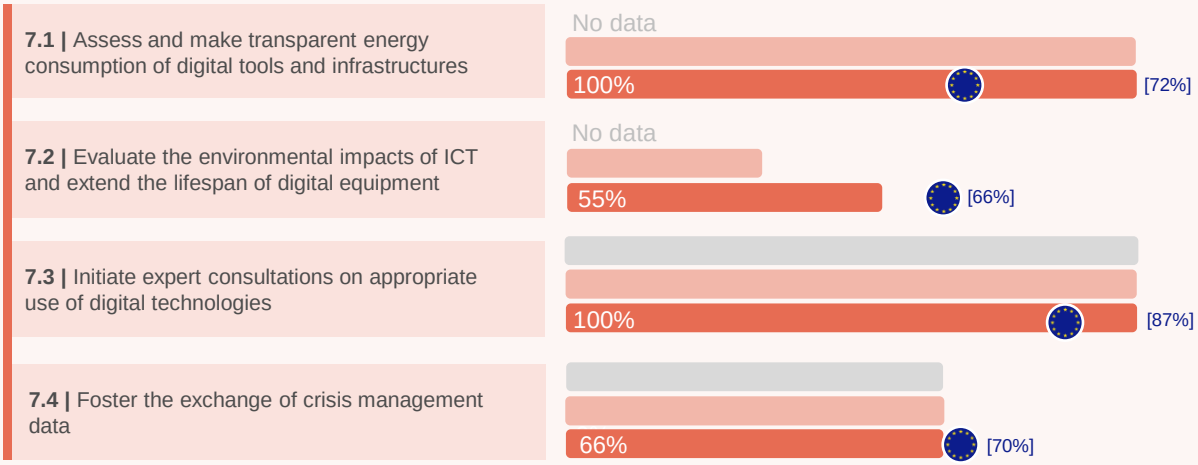
Policy Area 6
Digital empowerment and digital literacy

83%



Policy Area 7
Resilience and sustainability

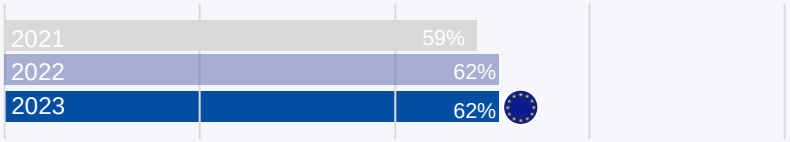
80%



Qualitative stories from Italy

Policy Area 2

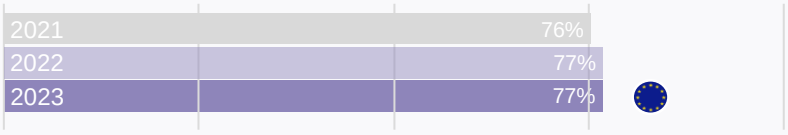
Enhance social participation and digital inclusion



Designers Italia provides resources to support co-designing, participatory processes as well as curating a community of ICT professionals, designers, developers, and civil servants who designs public digital services across the country. In 2023, the core effort has been to make each high-level legal provision connected to practical tools that helps fulfil the intended goals; continue the collection, documentation and technological evolution of a design system available for all the public entities who develop digital services, including foundations, UI-kits, centrally developed library and community driven libraries, to easily allow accessibility by design; the development of a healthcare institution digital service template, in collaboration with all the stakeholders involved at central and regional level, to standardise the adoption of inclusive services with dedicated accessibility guidelines, which have been recently released.

Policy Area 3

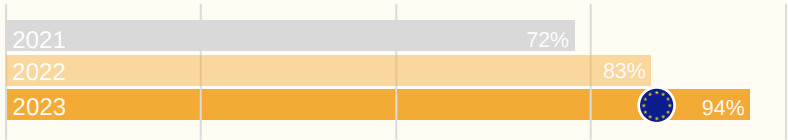
Foster digital empowerment and digital literacy



The Digital Civic Service is a measure funded by the Investment 7 of Mission 1 of the National Recovery and Resilience Plan (NRRP) and jointly implemented by the Department for Digital Transformation and the Department for Youth Policy and Universal Civic Service. This measure aims at training young volunteers (18-28 years old) to become digital facilitators, who can support citizens in using internet and digital tools, as well as accessing public services, while raising their digital awareness. In 2023, the number of programmes carried out raised to 88, for a total of 278 projects, involving around 1900 young volunteers for 12 months. Currently, more than 4000 volunteers involved in the second cycle of the initiative are joining dedicated training sessions (online classes, laboratories and self-learning on Moodle) to become digital facilitators, based on the DigComp framework.

Policy Area 5

Strengthen Europe's digital sovereignty and interoperability

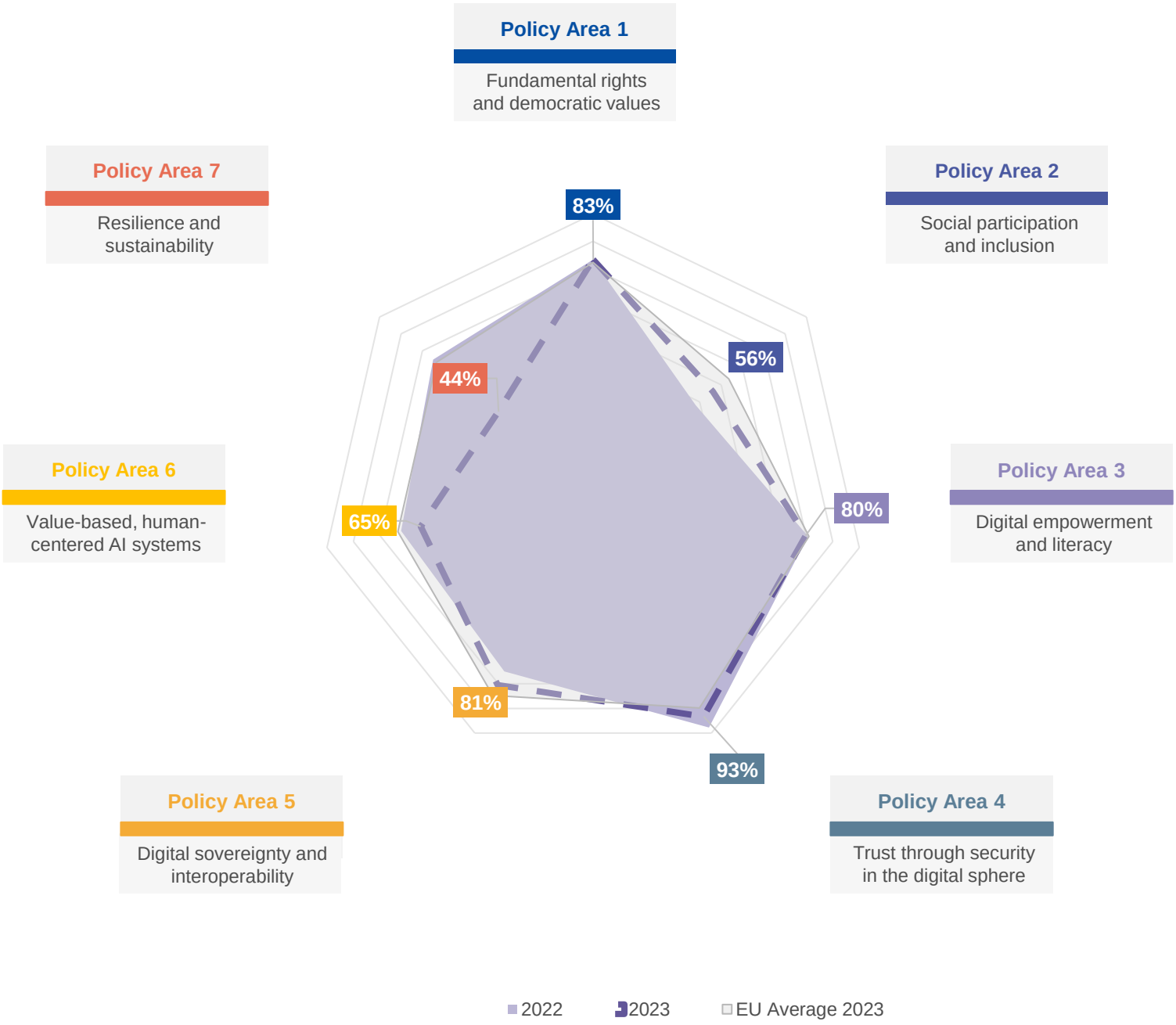


Italy actively participates in EUROPEUM-EDIC, which supports the creation of EBSI competence centres in the country, expanding the pool of qualified users. This opportunity allows Italy to propose tested use cases from the Italian Blockchain Services Infrastructure (IBSI), potentially enhancing scalability. Concurrently, Italy implements its Cloud Strategy, classifying public administration digital services and ensuring compliance with cybersecurity requirements for cloud migration by Q4 2023. Continuous support from the National Cybersecurity Agency aids administrations in periodic service reviews and classification updates. Moreover, the Polo Strategico Nazionale (PSN) is the high-reliability infrastructure that aims to equip the Public Administration with cloud technologies and infrastructure that can benefit from the highest guarantees of reliability, resilience and independence.

LATVIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Latvia | Policy Areas level of implementation

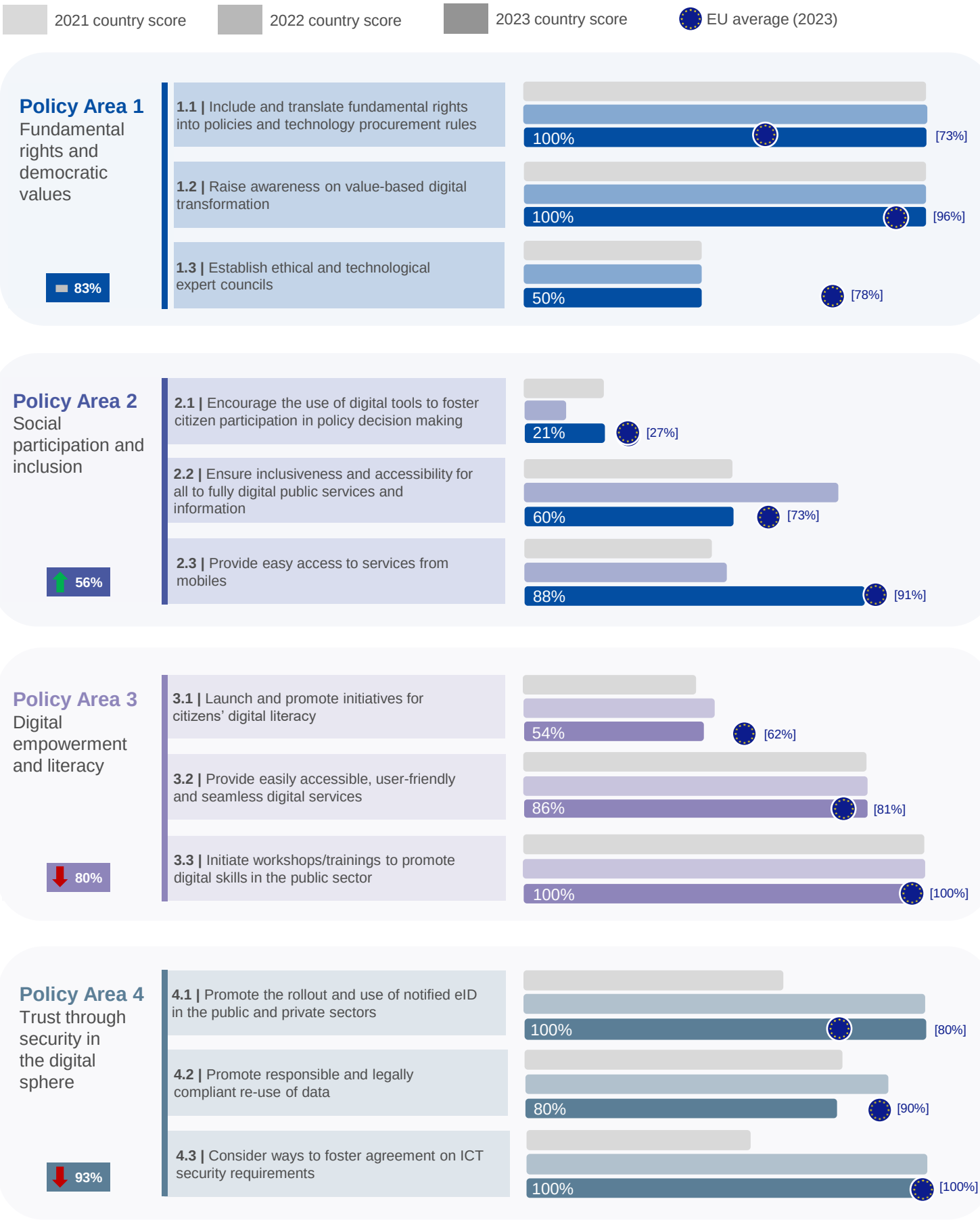


Overall, Latvia's scores in the Berlin Declaration monitoring mechanism 2023 have fluctuated compared to those of 2022. While Policy Area 1 and Policy Area 3 maintained relatively stable scores, Policy Area 2 and Policy Area 5 experienced increases. However, Policy Areas 6 and 7 encountered decreases.

The most significant changes for Latvia compared to 2022 have been recorded for Policy Areas 2 and 7, with increases and decreases of 8 and 31 percentage points respectively.

In addition, Latvia scores below the EU average in three out of seven Policy Areas. Latvia scores 83% in Policy Area 1 compared to an EU average of 82%, 56% in Policy Area 2 compared to 64%, 80% in Policy Area 3 compared to 81%, 93% in Policy Area 4 compared to 90%, 81% in Policy Area 5 compared to 85%, 65% in Policy Area 6 compared to 73%, and 44% in Policy Area 7 compared to 73%.

2023 BDM Results for Latvia | Policy Actions level of implementation



2023 BDM Results for Latvia | Policy Actions level of implementation

Policy Area 5
Digital sovereignty and interoperability

81%

5.1 | Jointly work towards agreements on requirements for technology providers

100% [83%]

5.2 | Implement common standards and modular architectures in cross border digital solutions

75% [78%]

5.3 | Work with the EC to provide suitable online public services for EU cross-border use

67% [93%]

Policy Area 6
Digital empowerment and digital literacy

65%

6.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

No Data
No Data
17% [68%]

6.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

78% [61%]

6.3 | Provide easy access to services from mobiles

100% [90%]

Policy Area 7
Resilience and sustainability

44%

7.1 | Assess and make transparent energy consumption of digital tools and infrastructures

No data
67% [72%]

7.2 | Evaluate the environmental impacts of ICT and extend the lifespan of digital equipment

66% [66%]

7.3 | Initiate expert consultations on appropriate use of digital technologies

0% [87%]

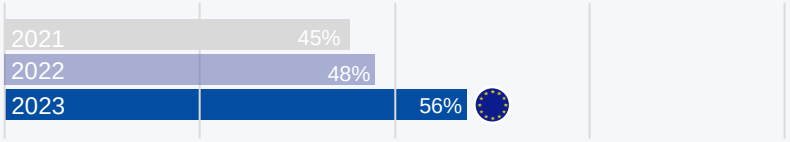
7.4 | Foster the exchange of crisis management data

No data [70%]

Qualitative stories from Latvia

Policy Area 2

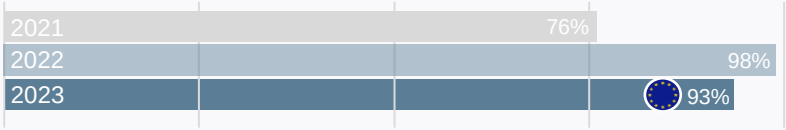
Enhance social participation and digital inclusion



The Web Accessibility Directive (EU) 2016/2102 has been transposed into national legislation (MK regulations No. 445 "Procedure in which institutions post information on the Internet" (adopted on July 14, 2020)). In this context, the reconstruction of the central public service portal latvija.gov.lv was implemented in 2023 and complies with the international website accessibility standard EN 301 549. The results of the in-depth evaluation will be taken into account during the portal's warranty. The same requirements have also been implemented in the unified platform of state administration websites. As a result of the project, more than 120 public websites operate on the new platform and work is currently underway on the next phase of the project, which will expand the number of these sites.

Policy Area 4

Strengthen trust through security in the digital sphere



In Latvia, the eID card is a mandatory personal identification document for all citizens who have reached the age of 15, which grants all citizens access to digital services. In fact, the State is obligated to provide digital tools for all citizens free of charge, thus developing an ecosystem where every citizen is "digitally equipped", can access public services, communicate with public authorities, and voice opinions regarding legislative proposals without any barriers. Additionally, national laws require all private and public sector e-service providers to integrate national notified eID means into their digital services, ensuring that e-services are accessible to all citizens.

LITHUANIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Lithuania | Policy Areas level of implementation

Policy Area 1
Fundamental rights and democratic values

Policy Area 2
Social participation and inclusion

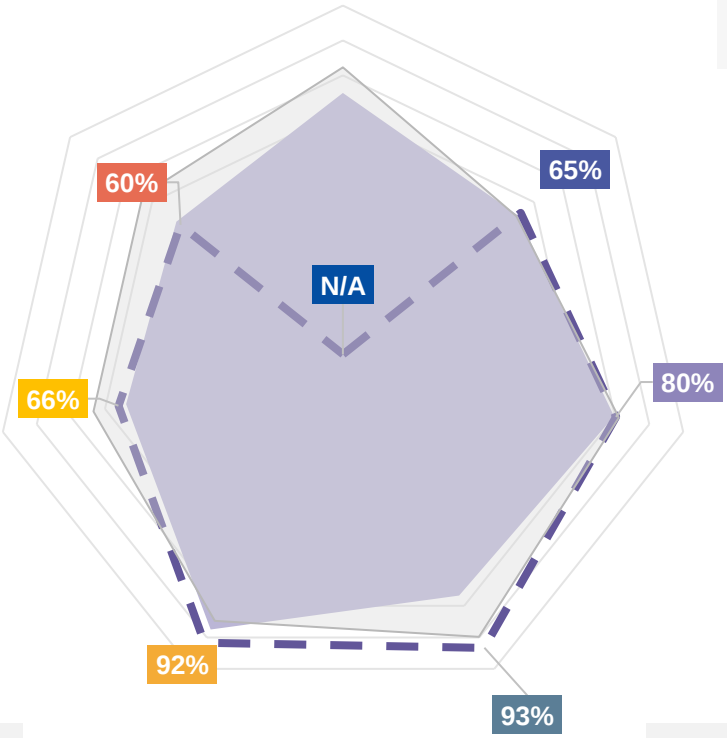
Policy Area 3
Digital empowerment and literacy

Policy Area 4
Trust through security in the digital sphere

Policy Area 5
Digital sovereignty and interoperability

Policy Area 6
Value-based, human-centered AI systems

Policy Area 7
Resilience and sustainability



2022 2023 EU Average 2023

Overall, Lithuania's scores in the Berlin Declaration monitoring mechanism 2023 have fluctuated compared to those of 2022. While data for Policy Area 1 are not available, Policy Areas 2 and 7 have increased by 1 percentage point. While results for Policy Area 3 haven't changed from 2022, Policy Area 4 has seen a notable increase of 16 percentage points, and Policy Area 5 has seen an increase of 5 percentage point.

The most significant increases for Lithuania compared to 2022 have been recorded for Policy Area 4, with a progress of 16 percentage points.

In addition, Lithuania scores above the EU average in three out of seven Policy Areas. Lithuania has no data linked to Policy Area 1 while the EU average is 82%, the country reaches 65% in Policy Area 2 compared to 64%, 80% in Policy Area 3 almost in line with the EU average of 81%, 93% in Policy Area 4 compared to 90%, 92% in Policy Area 5 compared to 85%, 66% in Policy Area 6 compared to 73%, and 60% in Policy Area 7 compared to 73%.

2023 BDM Results for Austria | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

N/A

1.1 | Include and translate fundamental rights into policies and technology procurement rules

No data
No data [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

No data [78%]

Policy Area 2
Social participation and inclusion

65%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

17% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

80% [73%]

2.3 | Provide easy access to services from mobiles

98% [91%]

Policy Area 3
Digital empowerment and literacy

80%

3.1 | Launch and promote initiatives for citizens' digital literacy

60% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

81% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100% [100%]

Policy Area 4
Trust through security in the digital sphere

93%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100% [80%]

4.2 | Promote responsible and legally compliant re-use of data

80% [90%]

4.3 | Consider ways to foster agreement on ICT security requirements

100% [100%]

2023 BDM Results for Austria | Policy Actions level of implementation

2021 country score | 2022 country score | 2023 country score | EU average (2023)

Policy Area 5
Digital sovereignty and interoperability

92%

5.1 | Jointly work towards agreements on requirements for technology providers
No data
No data
100% [83%]

5.2 | Implement common standards and modular architectures in cross border digital solutions
75% [78%]

5.3 | Work with the EC to provide suitable online public services for EU cross-border use
100% [93%]

Policy Area 6
Digital empowerment and digital literacy

66%

6.1 | Encourage the use of digital tools to foster citizen participation in policy decision making
No data
No data
71% [68%]

6.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information
44% [61%]

6.3 | Provide easy access to services from mobiles
83% [90%]

Policy Area 7
Resilience and sustainability

60%

7.1 | Assess and make transparent energy consumption of digital tools and infrastructures
No data
83% [72%]

7.2 | Evaluate the environmental impacts of ICT and extend the lifespan of digital equipment
No data
No data
55% [66%]

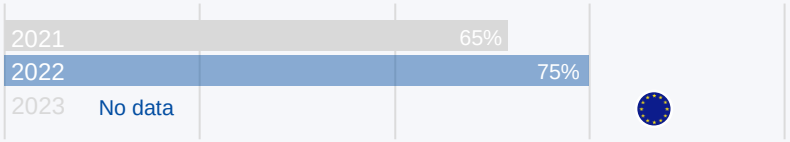
7.3 | Initiate expert consultations on appropriate use of digital technologies
0%
0%
0% [87%]

7.4 | Foster the exchange of crisis management data
100% [70%]

Qualitative stories from Lithuania

Policy Area 1

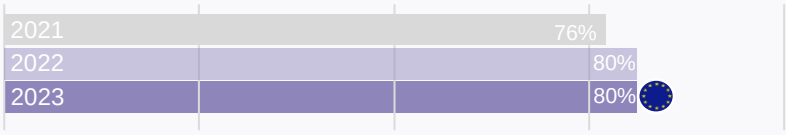
Promote fundamental rights and democratic values in the digital sphere



Lithuania approved the National Digitisation Development Programme 2021-2030, which aims to prioritise the consolidation of state information resources, IT infrastructure and services; ensure reliable public-sector data and the possibility to share them across sectors; develop advanced tools and technological solutions and integrate them into electronic services to guarantee interoperability, security, convenience and accessibility (especially for peoples with disabilities) both at the national and cross-border levels. Increasing digital competencies among citizens also has been identified as a priority, in order to understand AI, IoT, as well as being able to use smart devices. These priorities will be funded from the Recovery and Resilience Facility, EU Structural Funds investments for the period 2021- 2027, the State's budget, and other sources of funding.

Policy Area 3

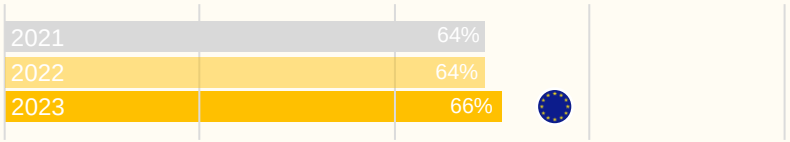
Foster digital empowerment and digital literacy



According to the Implementation Plan for the Government Programme 2020-2024, a Digital Skills Competency Model for Civil Servants should be prepared or renewed by Q4 2023. At the moment, the Ministry of Interior (MoI) is upgrading Civil Servants' Competency model by adding digital competencies. Beyond that, MoI is planning to train 4000 public servants to improve their digital skills by the end of 2024. In total, by the end of Q4 2024, 16000 public servants should be trained to improve financial-analytical competencies, as well as digital and leadership ones. In addition, Lithuania has deployed the Teachers Lead Tech, which is a continuing education programme for primary school teachers, introducing technological creation (animation, 3D modelling, music production, etc.) skills to the classroom.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector



The city of Vilnius has applied innovative technologies to different projects, including: VILNIUS DNA, a virtual internet gateway to the history of the city where you can find historical maps that encode the past of Vilnius, and tools to help you crack this confusing code; Sensor Data to help measure and evaluate air quality and predict the level of pollution; and Mobility Data to provide real-life traffic information of cars and pedestrian. Moreover, VILNIUS CITY GSM, together with GRINDA, is developing a project wherein more than 2,000 km of streets around the city are being scanned with a laser and their condition is being assessed.

LUXEMBOURG

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Luxembourg | Policy Areas level of implementation

Overall, Luxembourg's scores in the Berlin Declaration monitoring mechanism 2023 have remained high and stable compared to those of 2022, with minor fluctuations observed in Policy Areas 2, 3, and 7. While Policy Area 1 maintained its perfect score of 100% from the previous year, Policy Area 4 has seen a significant increase of 28 percentage points. Policy Area 5 and Policy Area 6 have remained unchanged, while Policy Area 7 has encountered a decrease of 8 percentage points.

The most significant increase for Luxembourg compared to 2022 has been recorded for Policy Area 4, with a remarkable progress of 28 percentage points.

In addition, Luxembourg scores above the EU average in all seven Policy Areas. Luxembourg scores 100% in Policy Area 1 compared to an EU average of 82%, 73% in Policy Area 2 compared to 64%, 87% in Policy Area 3 compared to 81%, 100% in Policy Area 4 compared to 90%, 94% in Policy Area 5 compared to 85%, 96% in Policy Area 6 compared to 73%, and 79% in Policy Area 7 compared to 73%.

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Luxembourg | Policy Actions level of implementation

2021 country score | 2022 country score | 2023 country score | EU average (2023)

Policy Area 1
Fundamental rights and democratic values

100%

- **1.1 |** Include and translate fundamental rights into policies and technology procurement rules — 100% [73%]
- **1.2 |** Raise awareness on value-based digital transformation — 100% [96%]
- **1.3 |** Establish ethical and technological expert councils — 100% [78%]

Policy Area 2
Social participation and inclusion

73%

- **2.1 |** Encourage the use of digital tools to foster citizen participation in policy decision making — 39% [27%]
- **2.2 |** Ensure inclusiveness and accessibility for all to fully digital public services and information — 80% [73%]
- **2.3 |** Provide easy access to services from mobiles — 99% [91%]

Policy Area 3
Digital empowerment and literacy

87%

- **3.1 |** Launch and promote initiatives for citizens' digital literacy — 69% [62%]
- **3.2 |** Provide easily accessible, user-friendly and seamless digital services — 93% [81%]
- **3.3 |** Initiate workshops/trainings to promote digital skills in the public sector — 100% [100%]

Policy Area 4
Trust through security in the digital sphere

100%

- **4.1 |** Promote the rollout and use of notified eID in the public and private sectors — 100% [80%]
- **4.2 |** Promote responsible and legally compliant re-use of data — 100% [90%]
- **4.3 |** Consider ways to foster agreement on ICT security requirements — 100% [100%]

2023 BDM Results for Luxembourg | Policy Actions level of implementation

Policy Area 5
Digital sovereignty and interoperability

94%

5.1 | Jointly work towards agreements on requirements for technology providers
100% [83%]

5.2 | Implement common standards and modular architectures in cross border digital solutions
83% [78%]

5.3 | Work with the EC to provide suitable online public services for EU cross-border use
100% [93%]

Policy Area 6
Digital empowerment and digital literacy

96%

6.1 | Encourage the use of digital tools to foster citizen participation in policy decision making
No data
88% [68%]

6.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information
0%
100% [61%]

6.3 | Provide easy access to services from mobiles
100% [90%]

Policy Area 7
Resilience and sustainability

79%

7.1 | Assess and make transparent energy consumption of digital tools and infrastructures
100% [72%]

7.2 | Evaluate the environmental impacts of ICT and extend the lifespan of digital equipment
50% [66%]

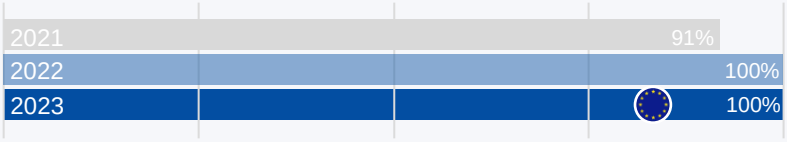
7.3 | Initiate expert consultations on appropriate use of digital technologies
100% [87%]

7.4 | Foster the exchange of crisis management data
66% [70%]

Qualitative stories from Luxembourg

Policy Area 1

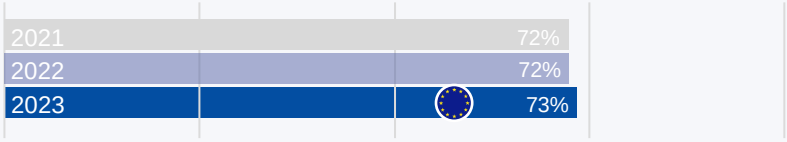
Promote fundamental rights and democratic values in the digital sphere



To increase awareness of the relevance of a value-based digital transformation, Luxembourg has developed Luxchat, which is a secure, decentralised messaging solution based completely on open source elements allowing citizens and civil servants to communicate in a completely secure manner, guaranteeing privacy and protection of personal data. Luxchat achieves security and privacy by design, while also complying to principles like transparency, openness and accountability.

Policy Area 2

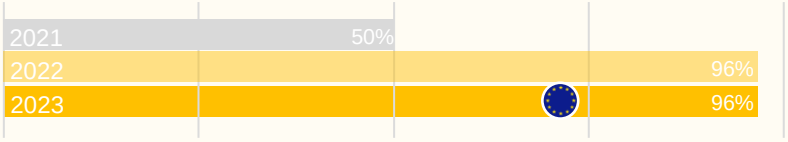
Enhance social participation and digital inclusion



Luxembourg's Zusammen digital presents all essential information about digital inclusion and its ecosystem in the country. The portal includes a toolbox that offers useful links referring to publications, practical guides, thematic sheets, videos or tutorials available online. Moreover, a glossary has been developed, which includes a series of digital terms to help familiarise people with this terminology.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector



Different initiatives aim to enhance knowledge-sharing on human-centric technologies in Luxembourg. More concretely, on 13 December 2006, the country ratified the UN Convention regarding the Rights of Persons with Disabilities, which promotes access for people with disabilities to new information and communication technologies, particularly to web and mobile applications. Web accessibility is defined by the Web Accessibility Initiative (WAI), the implementation of which is supported by the Government's Information and Press Service (SIP). Additionally, the digital accessibility portal provides a range of resources for making websites and mobile applications accessible to all.

MALTA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Malta | Policy Areas level of implementation

Policy Area 1
Fundamental rights and democratic values

Policy Area 2
Social participation and inclusion

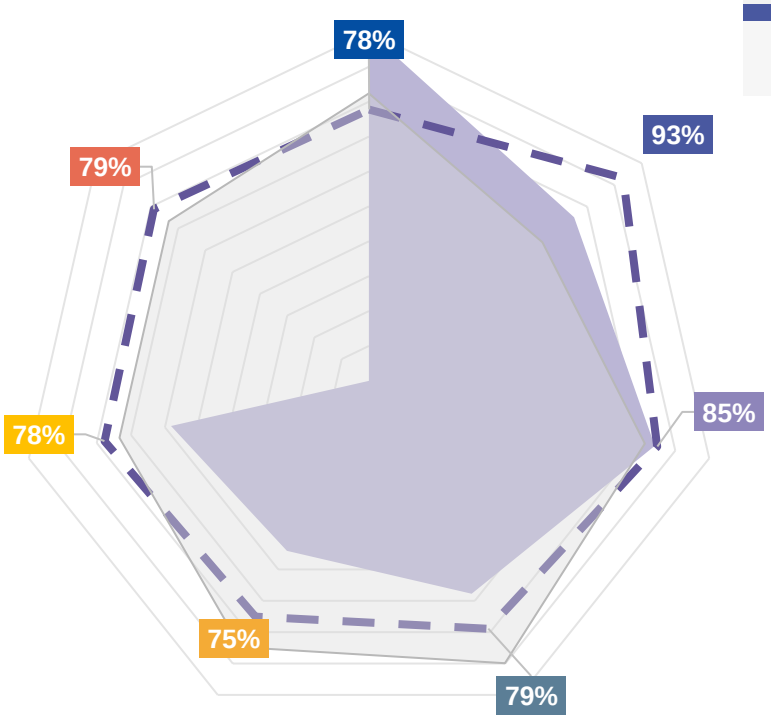
Policy Area 3
Digital empowerment and literacy

Policy Area 4
Trust through security in the digital sphere

Policy Area 5
Digital sovereignty and interoperability

Policy Area 6
Value-based, human-centered AI systems

Policy Area 7
Resilience and sustainability



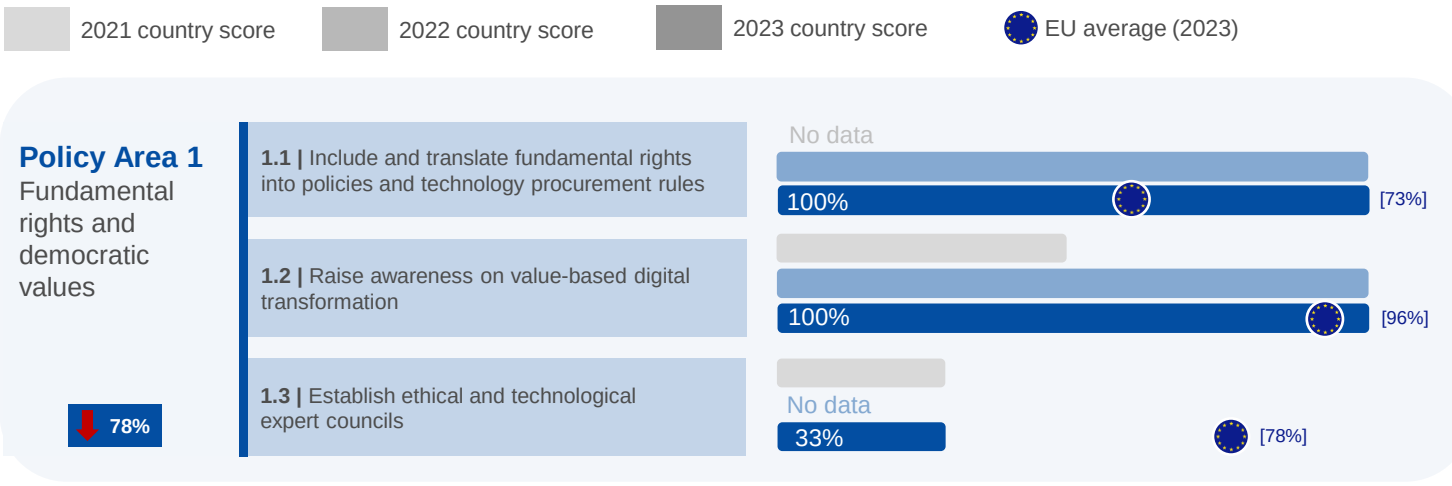
2022 2023 EU Average 2023

Overall, Malta's scores in the Berlin Declaration monitoring mechanism 2023 have shown an increase compared to those of 2022. While Policy Area 1 encountered a significant decrease of 22 percentage points compared to last year, Policy Areas 2, 3, 4, 5, and 6 have experienced increases. Policy Area 7 has no available data for 2022, but it has achieved a score of 79% in 2023.

The most significant increase for Malta compared to 2022 have been recorded for Policy Area 2, with a remarkable progress of 18 percentage points.

In addition, Malta scores above the EU average in four out of seven Policy Areas. Malta scores 78% in Policy Area 1 compared to an EU average of 82%, 93% in Policy Area 2 compared to 64%, 85% in Policy Area 3 compared to 81%, 79% in Policy Area 4 compared to 90%, 75% in Policy Area 5 compared to 85%, 78% in Policy Area 6 compared to 73%, and 79% in Policy Area 7 compared to 73%.

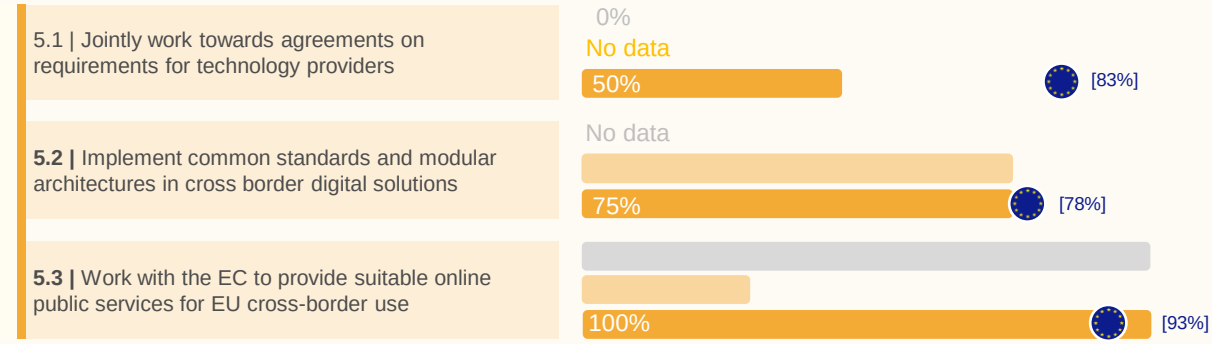
2023 BDM Results for Malta | Policy Actions level of implementation



2023 BDM Results for Malta | Policy Actions level of implementation

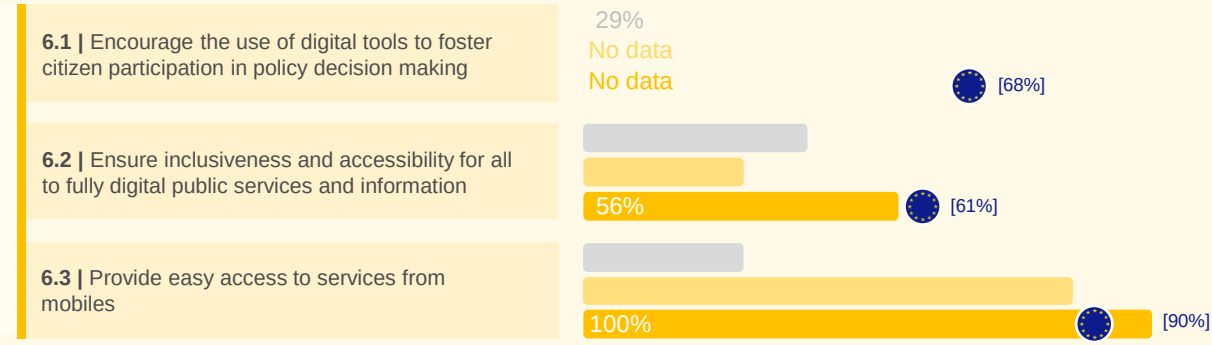
Policy Area 5
Digital sovereignty and interoperability

75%



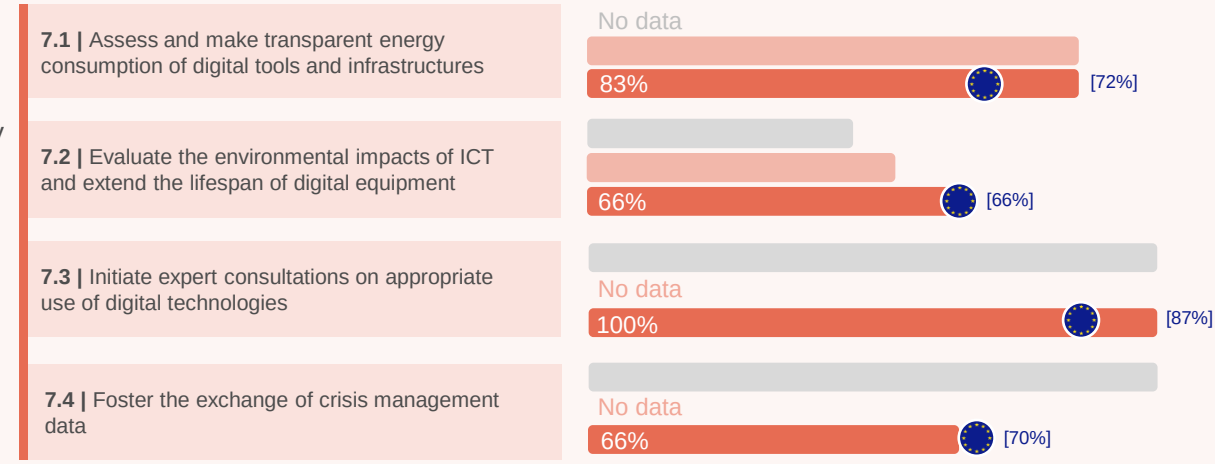
Policy Area 6
Digital empowerment and digital literacy

78%



Policy Area 7
Resilience and sustainability

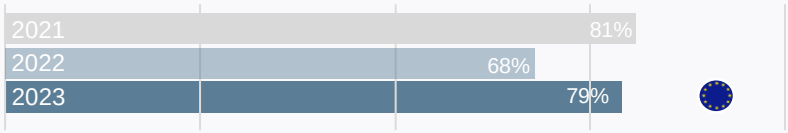
79%



Qualitative stories from Malta

Policy Area 4

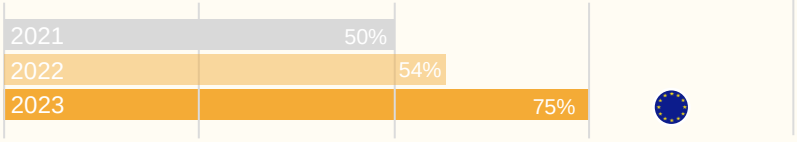
Strengthen trust through security in the digital sphere



The Maltese Government-issued eID is based on a Single Sign-on (SSO) screen introduced in 2016 for a newly harmonised user experience for the eID authentication mechanism. The SSO screen was an important development for the security of the integration process. In fact, by using the SAML 2.0 protocol, it was possible to uniquely identify incoming requests from service providers and to encrypt responses containing the users' data. The SSO screen supports a Basic Assurance level using the eID Account and password, and a High Assurance level using the ID Card and PIN. This resulted in the provision of a better choice of usability and security for the subscribers and relying parties.

Policy Area 5

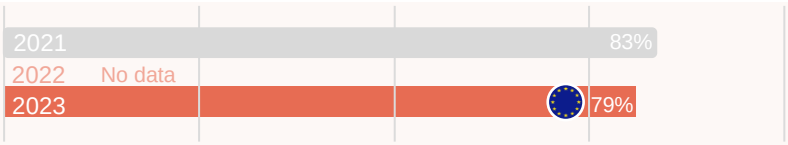
Strengthen Europe's digital sovereignty and interoperability



Malta's integration of AI and human-centric technologies across different sectors is a crucial part of its expansive AI and Digital strategy. Among the initiatives is the National Business Portal, which is intended to streamline interactions between 58,386 active business units and government services, enhancing efficiency for more than 20,000 employers. This portal represents a leap in automated services, revolutionising processes to ensure ease of doing business. Concurrently, Malta's Emergency Management Services integrated automation with human expertise, efficiently managing 290,771 emergency calls. This system optimised emergency responses, markedly reducing response times to an average of 3 seconds. Furthermore, the Tourism Authority's AI-driven Tourist Information System is designed to customise travel experiences for tourists, aiming to elevate engagement and actively enhance visitor satisfaction. .

Policy Area 7

Foster resilience and sustainability in the digital society

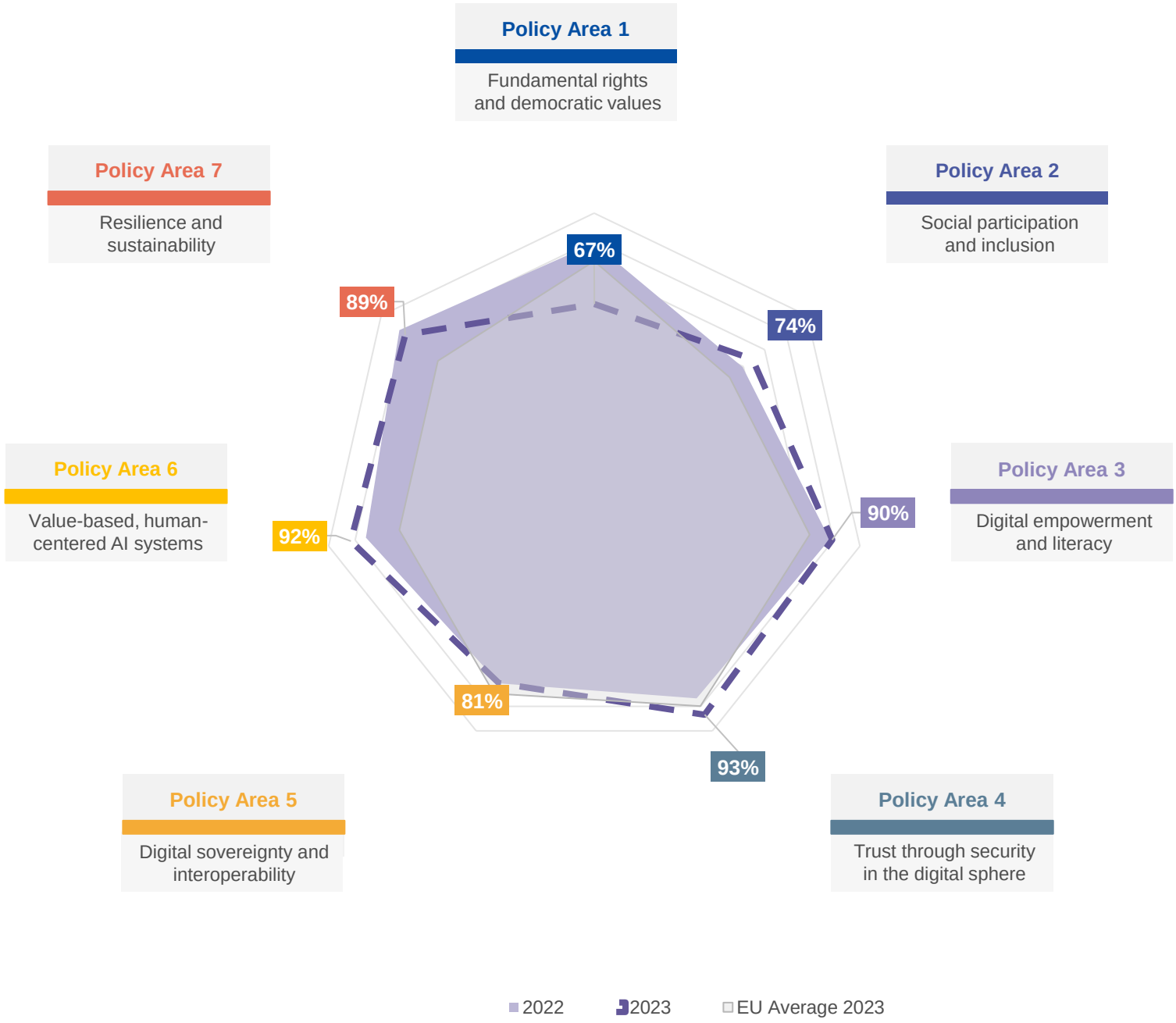


In 2022, Malta Communications Authority (MCA) published a Discussion Paper on "The Contribution of the Communications Sector and MCA's potential role towards achieving Malta's environmental sustainability goals". In assessing and making transparent the energy source, MCA advocates for the systematic collection of annual statistical data pertaining to energy consumption, including the percentage of energy used from renewables, of fixed and wireless electronic communication systems. Moreover, Malta Enterprise administers schemes to assist Maltese enterprises in digitalising their business operations. In this context, the Business Development 2021 scheme supports different activities, such as the re-engineering of processes and the development of digital services. Other initiatives are in place to foster a resilient and sustainable digital society, such as the Skills Development Scheme, which supports employee training in digital technologies aimed at addressing skill shortages emanating from the digital transition, and several Smart and Sustainable Investment Grant funds projects, which make business activities more sustainable and resource more efficient.

THE NETHERLANDS

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for the Netherlands | Policy Areas level of implementation



Overall, the Netherlands' scores in the Berlin Declaration monitoring mechanism 2023 have shown mixed trends compared to those of 2022. While Policy Area 1 encountered a significant decrease of 22 percentage points compared to last year, Policy Area 4 and 6 have seen a notable increase of 6 percentage points. Policy Areas 2, 3, and 7 have experienced increases as well, whereas Policy Area 5 remained unchanged.

The most significant increases for the Netherlands compared to 2022 have been recorded for Policy Areas 4 and 6, with a remarkable progress of 6 percentage points.

In addition, the Netherlands scores below the EU average in two out of seven Policy Areas. The Netherlands scores 67% in Policy Area 1 compared to an EU average of 82%, 74% in Policy Area 2 compared to 64%, 90% in Policy Area 3 compared to 81%, 93% in Policy Area 4 compared to 90%, 81% in Policy Area 5 compared to 85%, 92% in Policy Area 6 compared to 73%, and 89% in Policy Area 7 compared to 73%.

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for the Netherlands | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

67%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

100% [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

0% [78%]

Policy Area 2
Social participation an d inclusion

74%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

63% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

60% [73%]

2.3 | Provide easy access to services from mobiles

100% [91%]

Policy Area 3
Digital empowerment and literacy

90%

3.1 | Launch and promote initiatives for citizens' digital literacy

78% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

91% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100% [100%]

Policy Area 4
Trust through security in the digital sphere

93%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100% [80%]

4.2 | Promote responsible and legally compliant re-use of data

80% [90%]

4.3 | Consider ways to foster agreement on ICT security requirements

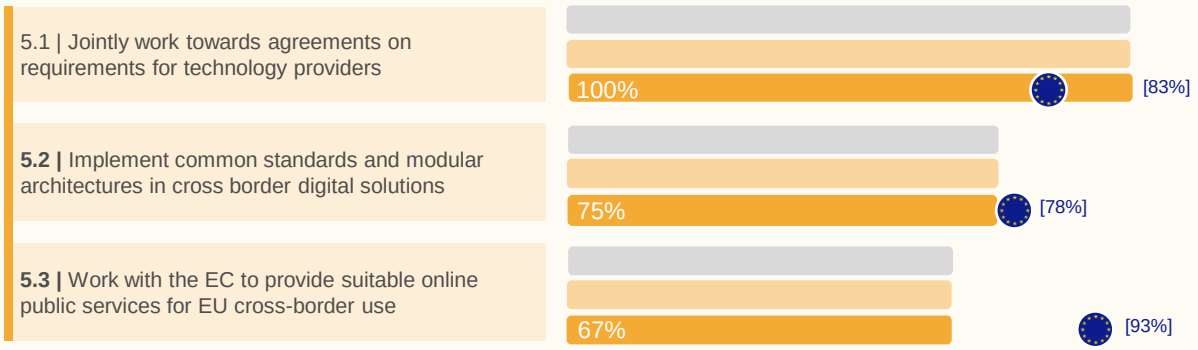
No data

100% [100%]

2023 BDM Results for the Netherlands | Policy Actions level of implementation

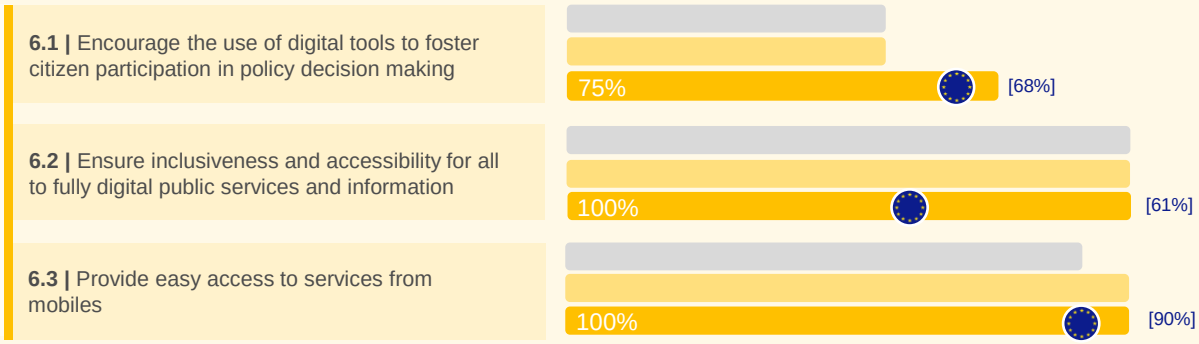
Policy Area 5
Digital sovereignty and interoperability

81%



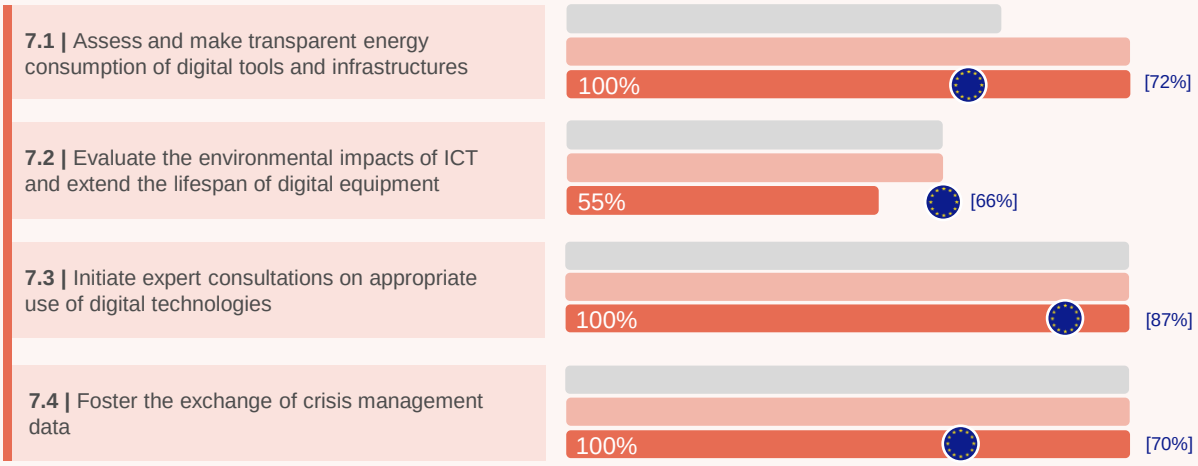
Policy Area 6
Digital empowerment and digital literacy

92%



Policy Area 7
Resilience and sustainability

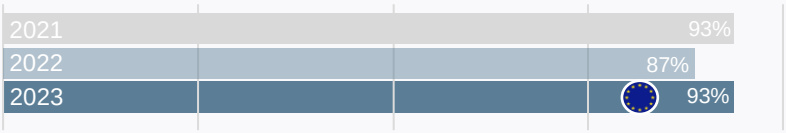
89%



Qualitative stories from the Netherlands

Policy Area 4

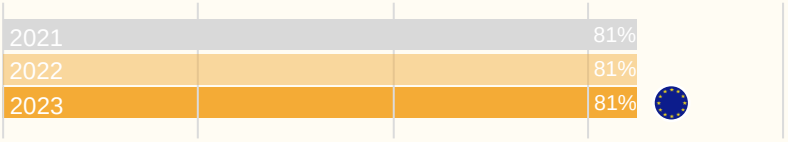
Strengthen trust through security in the digital sphere



Determined to learn from unfortunate instances, such as the child tax credit affair, the Netherlands has in recent years been closely focussed on increasing trust in digitalisation. This comes to the core in the country's Work Agenda for Value Driven Digitalisation. Launched in October 2022 and recently updated, Foundations 2 and 3 of the Work Agenda read that "everyone will be able to trust the digital world", and that "everyone will have control of their digital lives respectively, and contain whole programmes of interventions". Key examples for these goals are the open source development of an Algorithm Register, where public sector bodies can transparently list the algorithms they use, and the public open source Reference Wallet. Trust and transparency are also core values in our Reference Architecture.

Policy Area 5

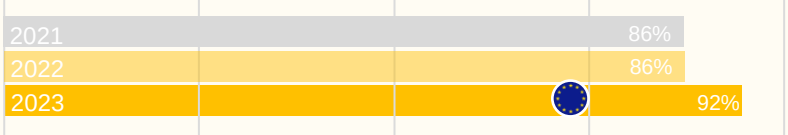
Strengthen Europe's digital sovereignty and interoperability



In 2023, the Netherlands has developed a policy agenda on "Digital open strategic autonomy", in which it assessed national and European strengths, strategic dependencies, and vulnerabilities in digital technology. This has an impact not only in the economy and security, but also on the society as a whole, including human rights, public values, and democracy. In this agenda, the country made use of the "digital technology stack" to dissects the digital domain in layers: from raw materials and chips to cloud and applications. This led to the designation of ten most crucial technologies for the Dutch economic resilience and open strategic autonomy in the digital domain, including critical raw materials, quantum computing, photonics, semiconductors, networking technology, open source software, cloud, AI, cybersecurity, and office software. Furthermore, the Netherlands has several initiatives to improve the use open source within the government, such as the "Open, unless" policy and the creation of an Open Source Programme Office.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector

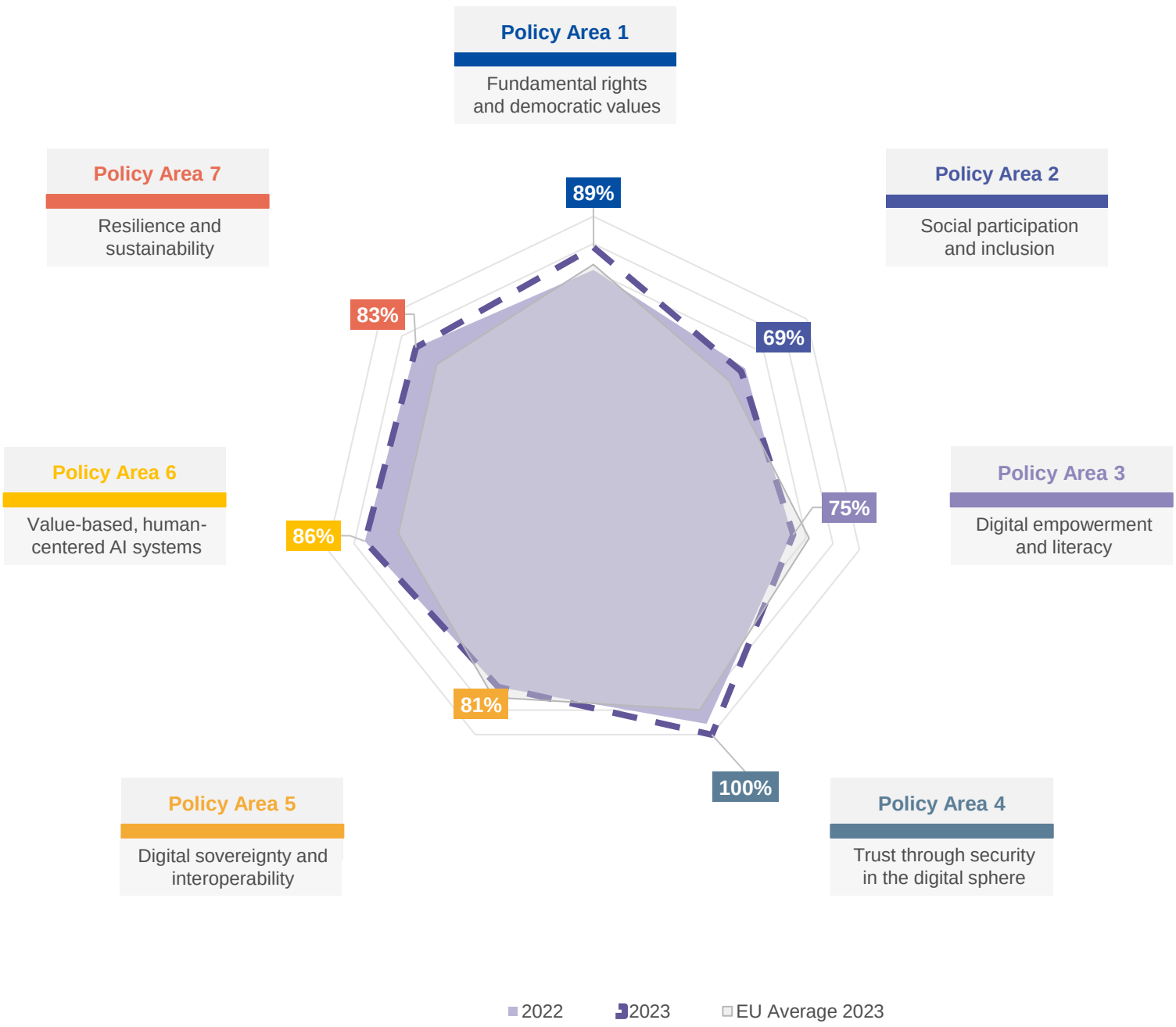


In 2023, the Netherlands published an implementation framework to guide public sector bodies in how to responsibly introduce algorithms in their business processes, which has later been relaunched as the Algorithm Framework on GitHub. Moreover, in January 2024, the Government-wide vision on Generative AI in the Netherlands has been launched. By bringing together all levels of government, academia, civil society, AI developers, business and private citizens in an innovative and inclusive process, the vision focuses on ensuring that generative AI in the country is developed and applied in a safe and equitable manner, and that it promotes human well-being and autonomy, while contributing to sustainability and prosperity.

POLAND

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Poland | Policy Areas level of implementation



Overall, Poland's scores in the Berlin Declaration monitoring mechanism 2023 have shown stability and minor fluctuations compared to those of 2022. While Policy Area 1 has seen a significant increase of 4 percentage points and Policy Area 4 of 4 percentage points, Policy Area 2 encountered a decrease of 2 percentage points. Policy Areas 3, 5, 6, and 7 have remained relatively stable.

The most significant increase for Poland compared to 2022 has been recorded for Policy Area 1, with a notable progress of 9 percentage points.

In addition, Poland scores above the EU average in four out of seven Policy Areas. Poland scores 89% in Policy Area 1 compared to an EU average of 82%, 69% in Policy Area 2 compared to 64%, 75% in Policy Area 3 compared to 81%, 100% in Policy Area 4 compared to 90%, 81% in Policy Area 5 compared to 85%, 86% in Policy Area 6 compared to 73%, and 83% in Policy Area 7 compared to 73%.

2023 BDM Results for Poland | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

89%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

No data
66% [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

No data
100% [78%]

Policy Area 2
Social participation and inclusion

69%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

30% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

80% [73%]

2.3 | Provide easy access to services from mobiles

98% [91%]

Policy Area 3
Digital empowerment and literacy

75%

3.1 | Launch and promote initiatives for citizens' digital literacy

49% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

77% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100% [100%]

Policy Area 4
Trust through security in the digital sphere

100%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100% [80%]

4.2 | Promote responsible and legally compliant re-use of data

100% [90%]

4.3 | Consider ways to foster agreement on ICT security requirements

100% [100%]

2023 BDM Results for Poland | Policy Actions level of implementation

Policy Area 5
Digital sovereignty and interoperability

81%

- 5.1 | Jointly work towards agreements on requirements for technology providers — 100% [83%]
- **5.2 |** Implement common standards and modular architectures in cross border digital solutions — 75% [78%]
- **5.3 |** Work with the EC to provide suitable online public services for EU cross-border use — 67% [93%]

Policy Area 6
Digital empowerment and digital literacy

86%

- **6.1 |** Encourage the use of digital tools to foster citizen participation in policy decision making — No data / No data [68%]
- **6.2 |** Ensure inclusiveness and accessibility for all to fully digital public services and information — No data / 89% [61%]
- **6.3 |** Provide easy access to services from mobiles — 83% [90%]

Policy Area 7
Resilience and sustainability

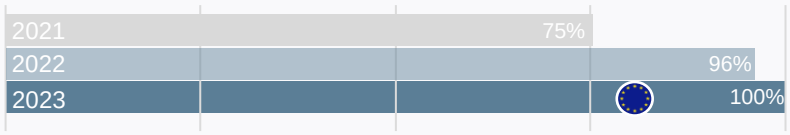
83%

- **7.1 |** Assess and make transparent energy consumption of digital tools and infrastructures — 50% [72%]
- **7.2 |** Evaluate the environmental impacts of ICT and extend the lifespan of digital equipment — No data / 83% [66%]
- **7.3 |** Initiate expert consultations on appropriate use of digital technologies — 0% / 100% [87%]
- **7.4 |** Foster the exchange of crisis management data — No data / 100% [70%]

Qualitative stories from Poland

Policy Area 4

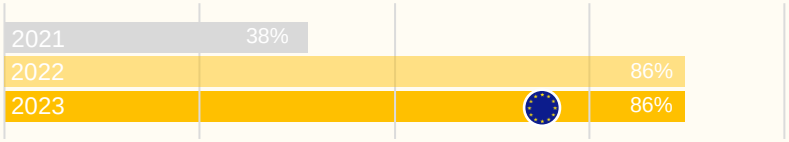
Strengthen trust through security in the digital sphere



In April 2023, Poland notified its Public Electronic Identification Scheme and, since then, one of the notified eID means has been available to private entities to enable user identification on their website. Later in July 2023, a new version of a mobile public app called mObywatel 2.0 (mCitizen 2.0) was released. The new version includes a new eID mean which is also available to private entities at mObywatel (mCitizen profile). Additionally, the mObywatel 2.0 allows its users access to a growing number of private and public services provided via the app. Users can also view and download their data from all major public registers and system, as well as share later that data from their devices with verified public and private entities in a secure manner.

Policy Area 6

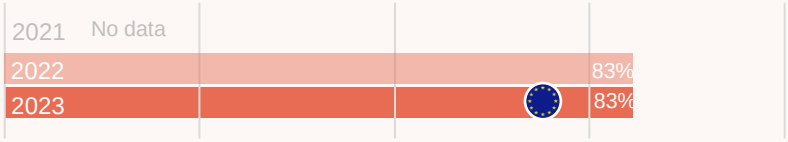
Create value-based, human-centred AI systems for use in the public sector



Effective coordination of activities related to the development of the Polish AI ecosystem include: centralising strategic planning for AI development in Poland within the Committee of the Council of Ministers for Digital Affairs; involving non-governmental organisations, including organisations of entrepreneurs, in the process of creating a framework for the development of the Polish AI ecosystem; defining the AI Policy as a living document; establishing interdisciplinary teams by bringing together experts working on AI and society, AI and the economy, AI and research policy, as well as AI healthcare and senior care, trustworthy AI, and practical challenges. Other important dimensions linked to human-centred AI systems include the development of rules ensuring transparency, auditing, and accountability concerning the use of algorithms by public administrations.

Policy Area 7

Foster resilience and sustainability in the digital society

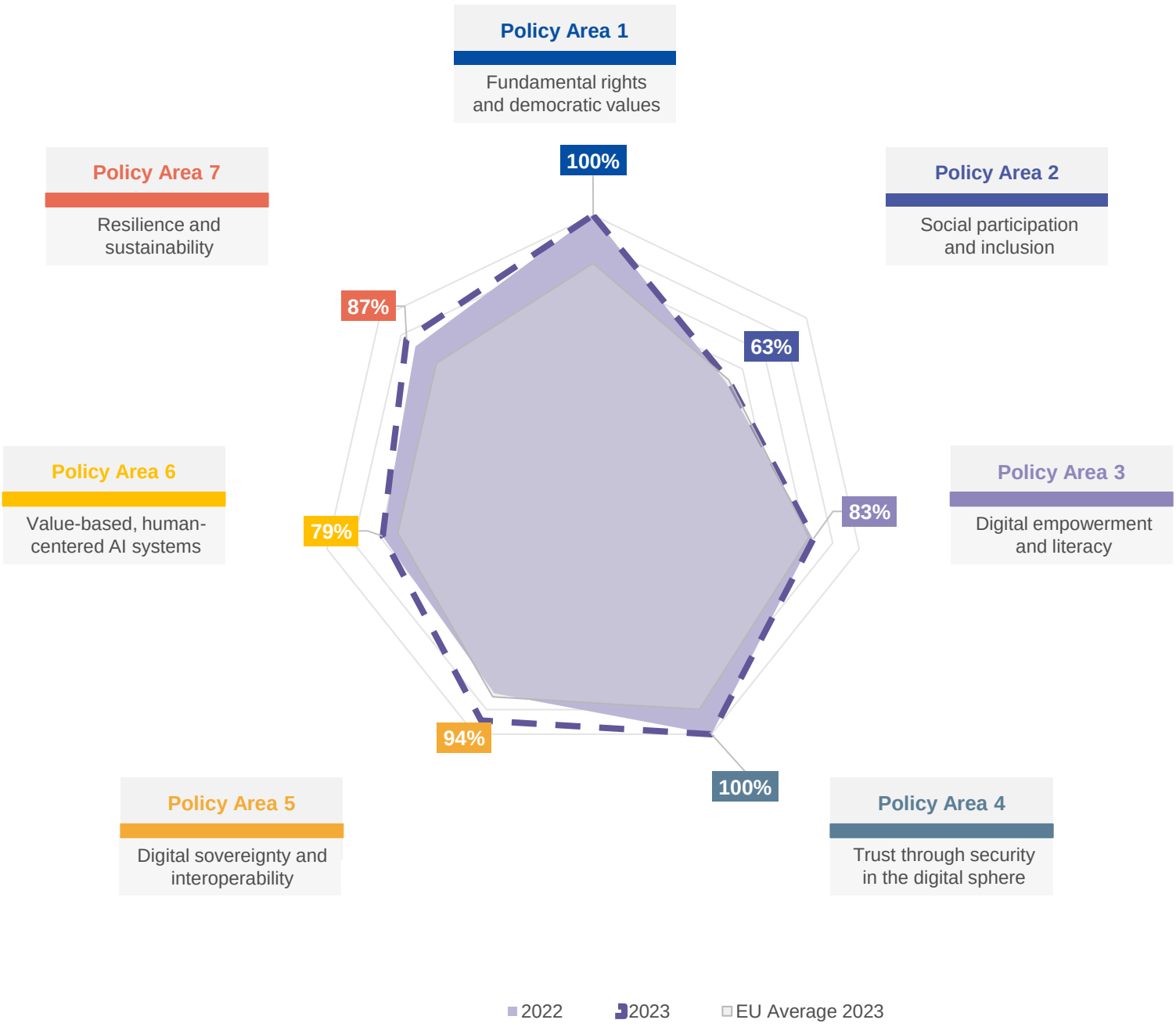


In the period 2020-2023, Poland conducted continuous efforts to promote the use of digital health services, in particular e-prescription, Patient Internet Account (IKP) and the development of the mojeIKP app. Specific actions have been taken, including online ads in social media and Google, a press campaign targeted to patients to encourage the use of the online patient account (Internetowe Konto Pacjenta), a PR campaign on cross-border e-prescription, emission of radio spots promoting the online patient account and the mojeIKP mobile app, as well as the launch of a new chatbot on www.pacjent.gov.pl informing patients about e-services in the health care system. Poland is also an active participant in the Commission's Destination Earth initiative aimed at developing a digital Earth model. This will contribute to achieve the green and digital transformation goals under the Green Deal and the EU's digital strategy.

PORTUGAL

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Portugal | Policy Areas level of implementation



Overall, Portugal's scores in the Berlin Declaration monitoring mechanism 2023 have remained consistently high compared to those of 2022, with minor fluctuations observed in Policy Areas 2 and 7. While Policy Area 5 encountered a significant increase of 11 percentage points compared to last year, Policy Areas 1, 3, 4, and 6 have remained stable.

The most significant increase for Portugal compared to 2022 has been recorded for Policy Area 5, with a remarkable progress of 11 percentage points.

In addition, Portugal scores above the EU average in six out of the seven Policy Areas. Portugal scores 100% in Policy Area 1 compared to an EU average of 82%, 63% in Policy Area 2 compared to 64%, 83% in Policy Area 3 matching the EU average of 81%, 100% in Policy Area 4 compared to 90%, 94% in Policy Area 5 compared to 85%, 79% in Policy Area 6 compared to 73%, and 87% in Policy Area 7 compared to 73%.

2023 BDM Results for Portugal | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

100%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

No data
100%
[73%]

1.2 | Raise awareness on value-based digital transformation

100%
[96%]

1.3 | Establish ethical and technological expert councils

100%
[78%]

Policy Area 2
Social participation and inclusion

63%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

33%
[27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

60%
[73%]

2.3 | Provide easy access to services from mobiles

97%
[91%]

Policy Area 3
Digital empowerment and literacy

83%

3.1 | Launch and promote initiatives for citizens' digital literacy

64%
[62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

85%
[81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100%
[100%]

Policy Area 4
Trust through security in the digital sphere

100%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100%
[80%]

4.2 | Promote responsible and legally compliant re-use of data

100%
[90%]

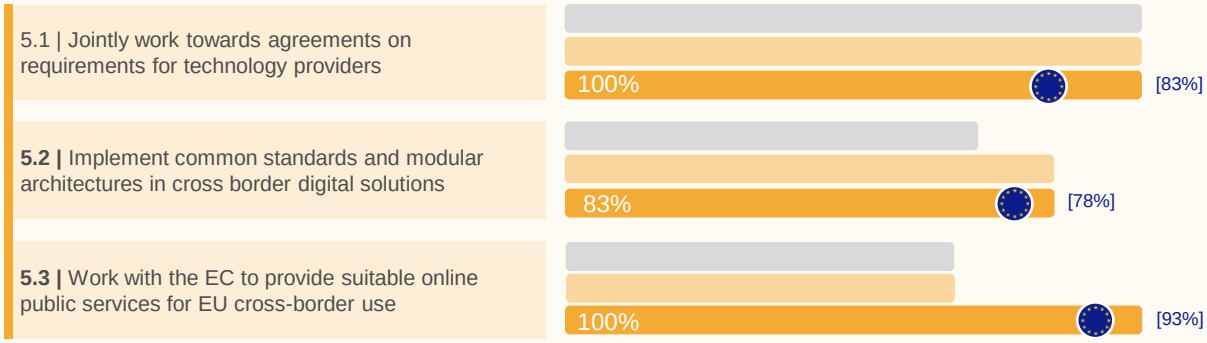
4.3 | Consider ways to foster agreement on ICT security requirements

100%
[100%]

2023 BDM Results for Portugal | Policy Actions level of implementation

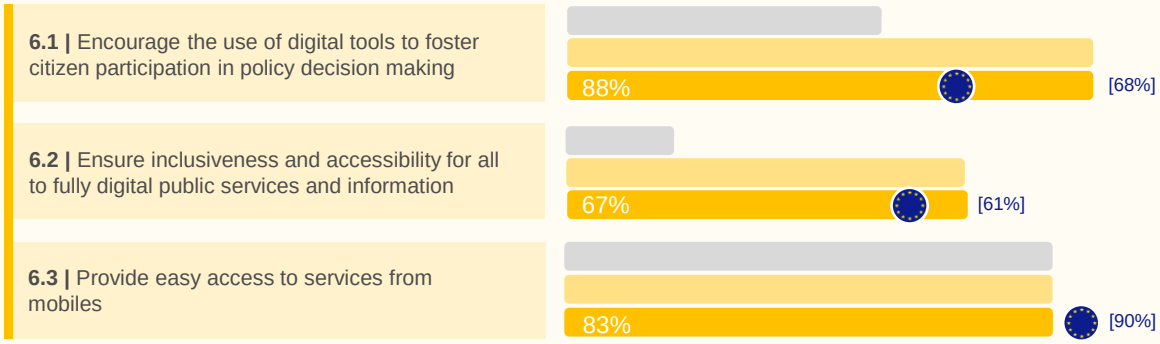
Policy Area 5
Digital sovereignty and interoperability

94%



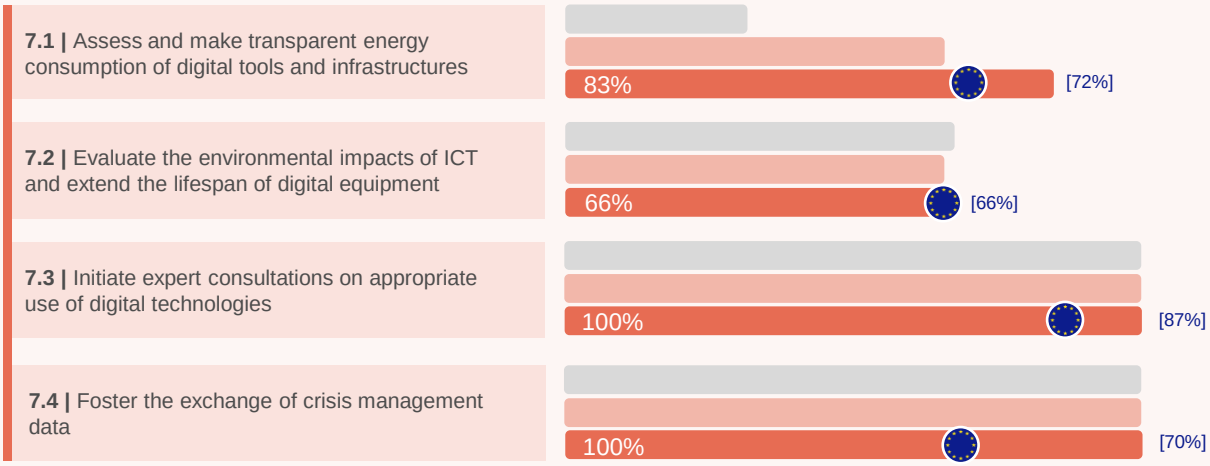
Policy Area 6
Digital empowerment and digital literacy

79%



Policy Area 7
Resilience and sustainability

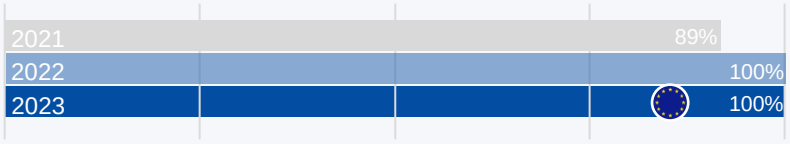
87%



Qualitative stories from Portugal

Policy Area 1

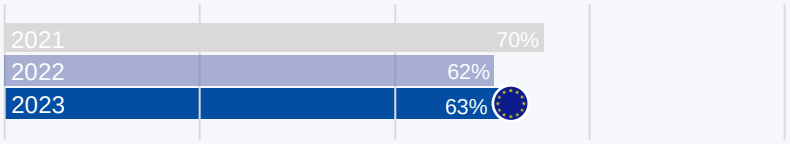
Promote fundamental rights and democratic values in the digital sphere



Portugal is committed to a model of digital transformation that places the human dimension at the core of the digital ecosystem, with a view to promoting human rights and fundamental freedoms in the digital world. One of the initiatives developed in this context is the Guide on Public Services based on Human Rights, which was developed by the Centre for Innovation in the Public Sector (LabX) and details nine basic principles that public institutions should consider when (re)designing public services, besides providing tools to help apply such a human rights approach. Moreover, Portugal participates in the OECD's Civic Space Scan, which resulted in the EU TSI-funded multi-country project "Improving civic participation with emerging technologies" (2023 - ongoing) and whose goal is to understand the challenges and opportunities of using emerging technologies to improve citizen engagement in Portugal, as well as the Netherlands and Spain.

Policy Area 2

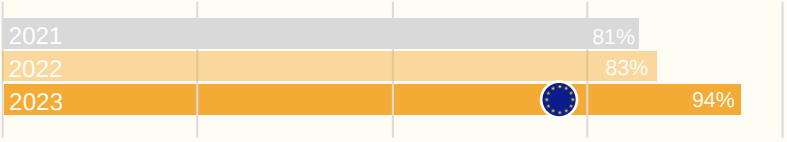
Enhance social participation and digital inclusion



The Action Plan for the Promotion of the Inclusive Digital Services reinforces the obligation of disclosure of the Accessibility Declaration in all public websites and mobile applications, besides setting the goal of 90% of public sector websites to be granted the Seal of Usability and Accessibility by the end of 2026. To achieve these goals, the Administrative Modernization Agency (AMA) has organised clarification sessions among the several governmental areas, including two online courses. These actions reached approximately 6,000 people. Additionally, AMA created an ecosystem of web accessibility evaluation tools that comprises public and free of charge mechanisms: the Observatory of Web Accessibility, allowing entities to monitor their websites; the Accessibility Declaration Generator, helping entities in publishing the mandatory declarations; and AccessMonitor, a Web Accessibility evaluator.

Policy Area 5

Strengthen Europe's digital sovereignty and interoperability



Launched in 2022, the Common Model for Designing and Development of Digital Public Services (MOSAICO) consists of a set of essential principles for the evolution of public services, with the objective of promoting coherence and consistency of citizens' and businesses' UX in their relationship with the State. The MOSAICO web portal offers available detailed information, including the documentation of technical architectures, about the common platforms for the public administration, e.g., digital identity (authentication, signature, certification of attributes), open data portal, interoperability platform, Catalogue of Entities and Services, electronic notifications system, and ePortugal (single digital gateway for public services), among others. MOSAICO is constantly evolving and in 2023, for example, new technical areas on accessibility, information security and software testing were created.

ROMANIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Romania | Policy Areas level of implementation

Policy Area 1
Fundamental rights and democratic values

Policy Area 2
Social participation and inclusion

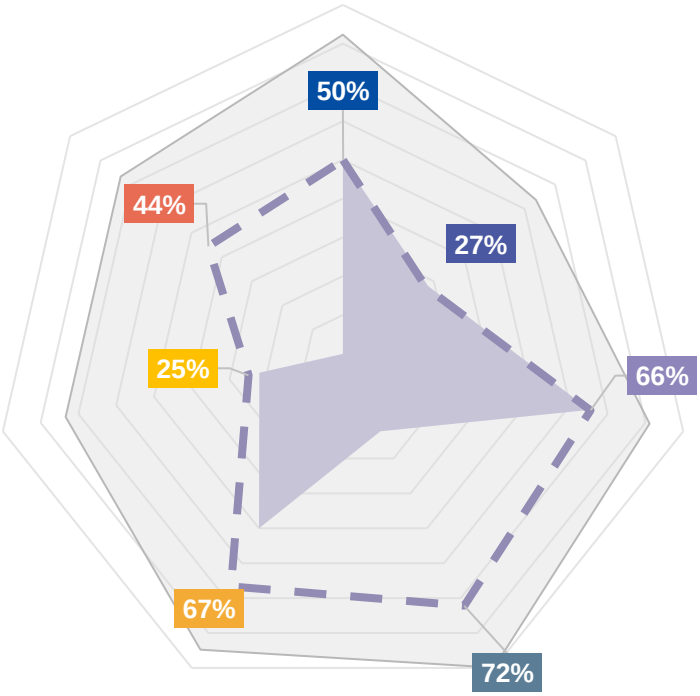
Policy Area 3
Digital empowerment and literacy

Policy Area 4
Trust through security in the digital sphere

Policy Area 5
Digital sovereignty and interoperability

Policy Area 6
Value-based, human-centered AI systems

Policy Area 7
Resilience and sustainability



2022 2023 EU Average 2023

Overall, Romania's scores in the Berlin Declaration monitoring mechanism 2023 have shown mixed trends compared to those of 2022. While Policy Areas 3, 4, 5, 6, and 7 have experienced increases, Policy Areas 1 has remained stable, and Policy Area 2 has seen a slight decrease.

The most significant increases for Romania compared to 2022 have been recorded for Policy Area 4, with a remarkable progress of 50 percentage points, and for Policy Area 7, with an increase of 44 percentage points.

In addition, Romania scores below the EU average in all seven Policy Areas. Romania scores 50% in Policy Area 1 compared to an EU average of 82%, 27% in Policy Area 2 compared to 64%, 66% in Policy Area 3 compared to 81%, 72% in Policy Area 4 compared to 90%, 67% in Policy Area 5 compared to 85%, 25% in Policy Area 6 compared to 73%, and 44% in Policy Area 7 compared to 73%.

2023 BDM Results for Romania | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

50%

1.1 | Include and translate fundamental rights into policies and technology procurement rules
0%
0%
0%
[73%]

1.2 | Raise awareness on value-based digital transformation
100%
[96%]

1.3 | Establish ethical and technological expert councils
50%
[78%]

Policy Area 2
Social participation and inclusion

27%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making
17%
[27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information
40%
[73%]

2.3 | Provide easy access to services from mobiles
25%
[91%]

Policy Area 3
Digital empowerment and literacy

66%

3.1 | Launch and promote initiatives for citizens' digital literacy
46%
[62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services
51%
[81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector
No data
100%
[100%]

Policy Area 4
Trust through security in the digital sphere

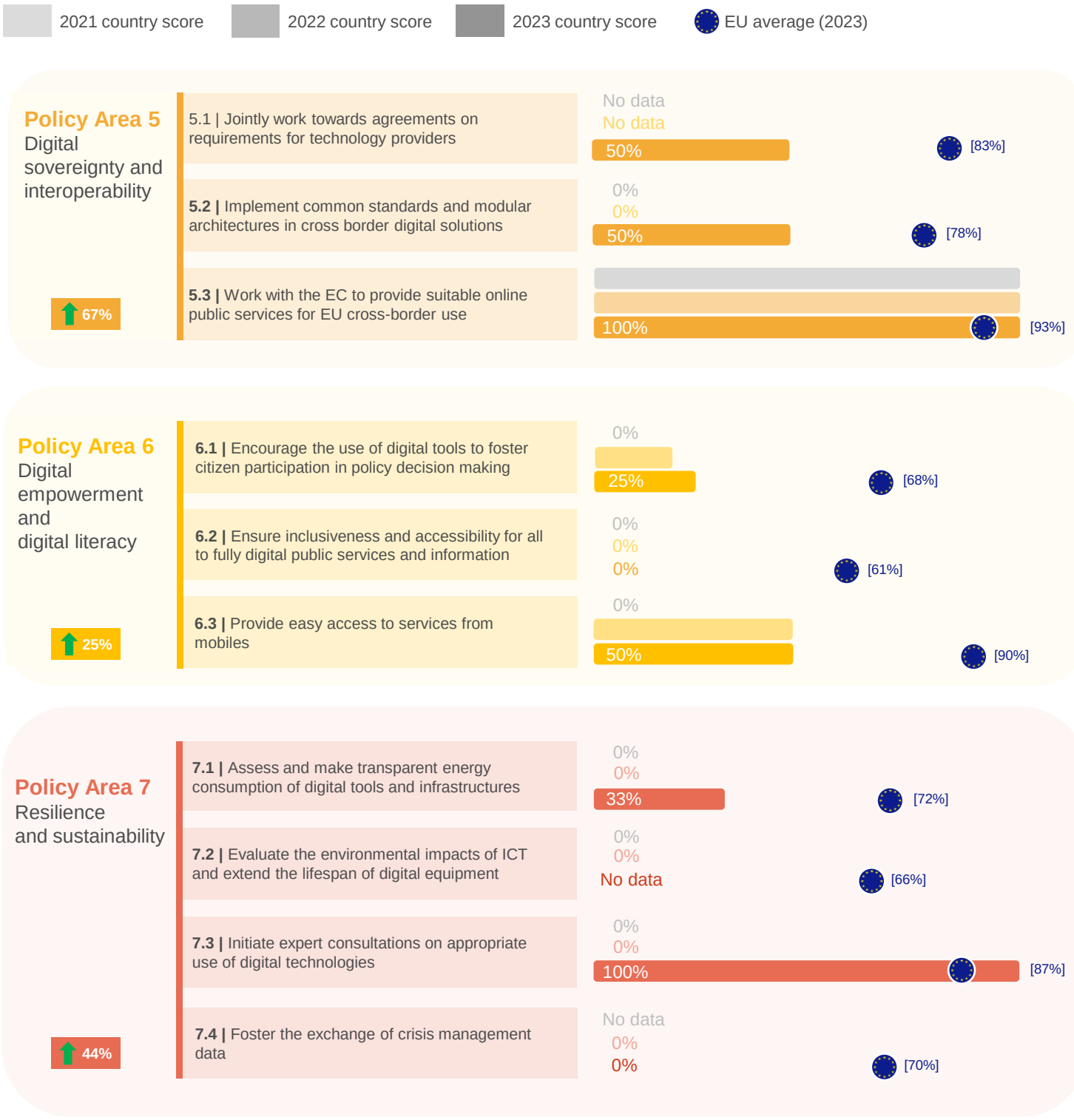
72%

4.1 | Promote the rollout and use of notified eID in the public and private sectors
0%
0%
17%
[80%]

4.2 | Promote responsible and legally compliant re-use of data
No data
100%
[90%]

4.3 | Consider ways to foster agreement on ICT security requirements
No data
0%
100%
[100%]

2023 BDM Results for Romania | Policy Actions level of implementation



Qualitative stories from Romania

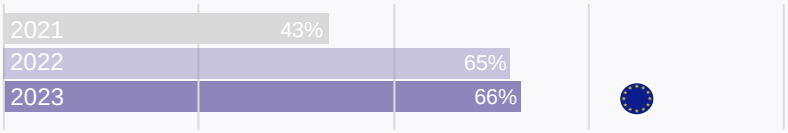
Policy Area 2

Enhance social participation and digital inclusion

The Local Communities Electronic Networks (LCENs) connect local communities (schools, public offices and libraries) in Romania to the internet. Public access points have been set up in each area covered by the networks. The objectives of this initiative are to reduce the rural-urban digital divide, stimulate the use of ICTs in schools, and facilitate the interaction between citizens and administration. The network has covered 255 rural communities and small towns throughout the country, targeting over 1,7 million Romanian citizens (10% of Romanian rural areas).

Policy Area 3

Foster digital empowerment and digital literacy

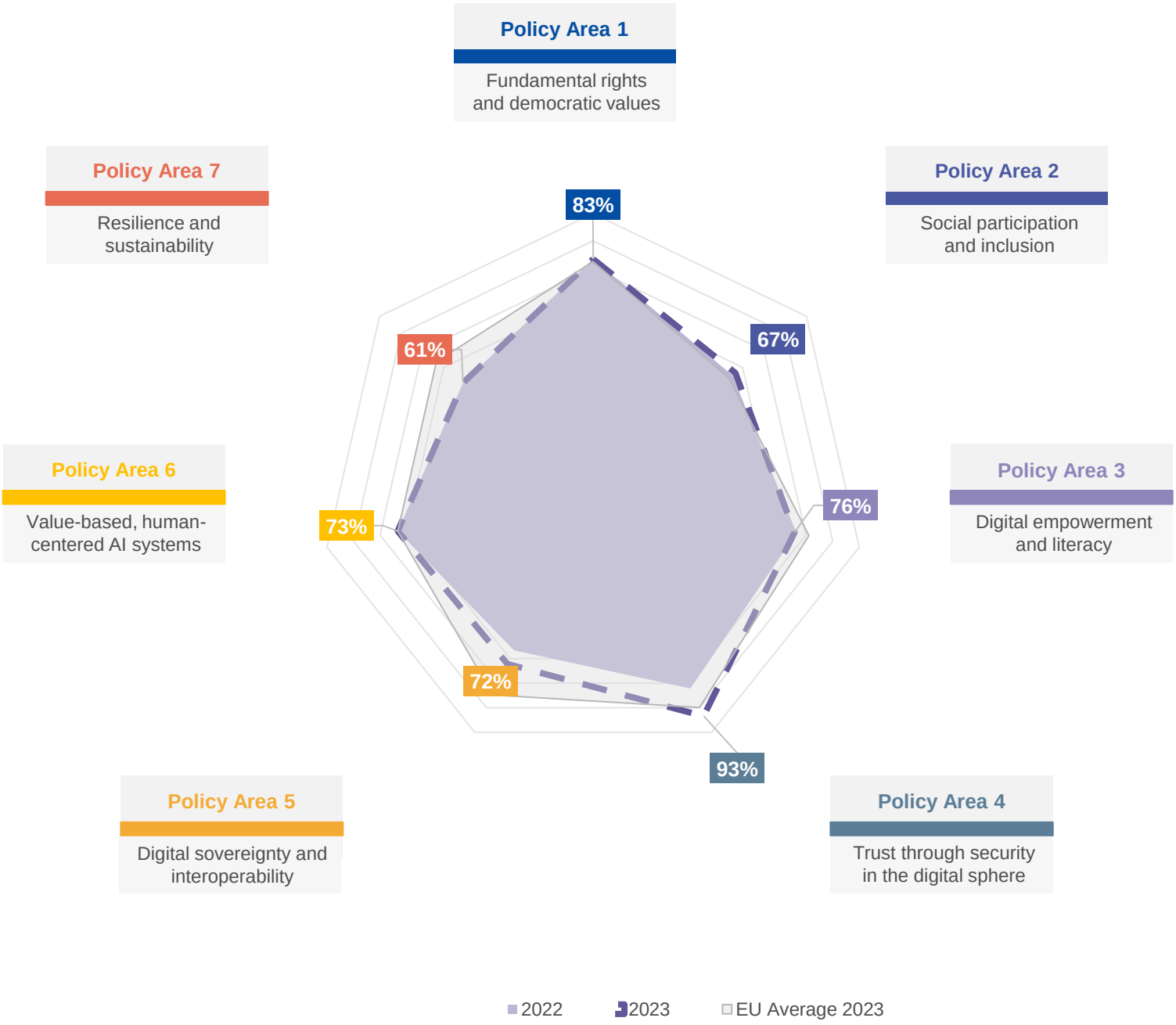


Through their key activities and pillars, Digital Innovation Centres provide services of public interest to SMEs and the sector, including: access to technologies and expertise relevant to digital transformation; access to infrastructure and testing/validation facilities for new products or services; training, education and digital management or financial management skills development; support in identifying sources of funding available for digital transformation processes; promotion of connectivity and synergies between regional or European innovation ecosystem actors.

SLOVAKIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Slovakia | Policy Areas level of implementation



Overall, Slovakia's scores in the Berlin Declaration monitoring mechanism 2023 have shown consistent improvement compared to those of 2022, with fluctuations observed in Policy Areas 2 and 5. While Policy Area 4 encountered a significant increase of 11 percentage points compared to last year, Policy Areas 1, 3, 6, and 7 have remained stable.

The most significant increase for Slovakia compared to 2022 has been recorded for Policy Area 4, with a remarkable progress of 11 percentage points.

In addition, Slovakia scores below the EU average in three out of seven Policy Areas. Slovakia scores 83% in Policy Area 1 compared to an EU average of 82%, 67% in Policy Area 2 compared to 64%, 76% in Policy Area 3 compared to 81%, 93% in Policy Area 4 compared to 90%, 72% in Policy Area 5 compared to 85%, 73% in Policy Area 6 matching the EU average, and 61% in Policy Area 7 compared to 73%.

2023 BDM Results for Slovakia | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

83%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

100% [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

50% [78%]

Policy Area 2
Social participation and inclusion

67%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

19% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

100% [73%]

2.3 | Provide easy access to services from mobiles

81% [91%]

Policy Area 3
Digital empowerment and literacy

76%

3.1 | Launch and promote initiatives for citizens' digital literacy

54% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

73% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

No data

100% [100%]

Policy Area 4
Trust through security in the digital sphere

93%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100% [80%]

4.2 | Promote responsible and legally compliant re-use of data

80% [90%]

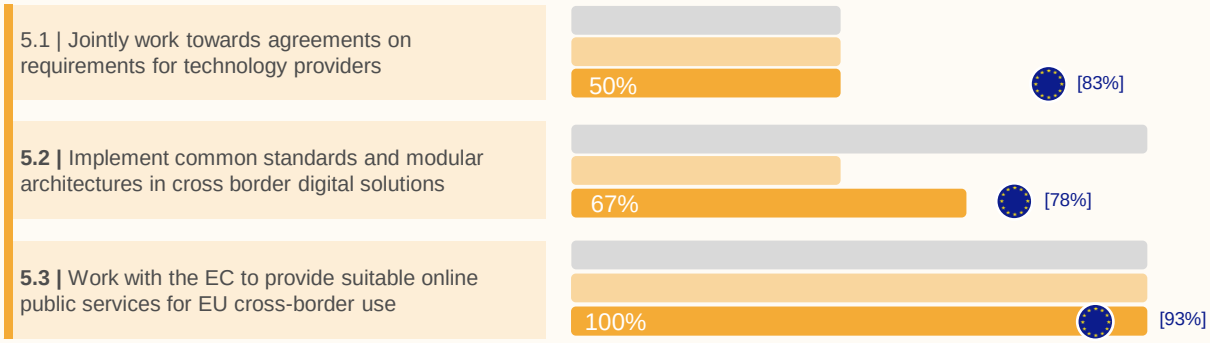
4.3 | Consider ways to foster agreement on ICT security requirements

100% [100%]

2023 BDM Results for Slovakia | Policy Actions level of implementation

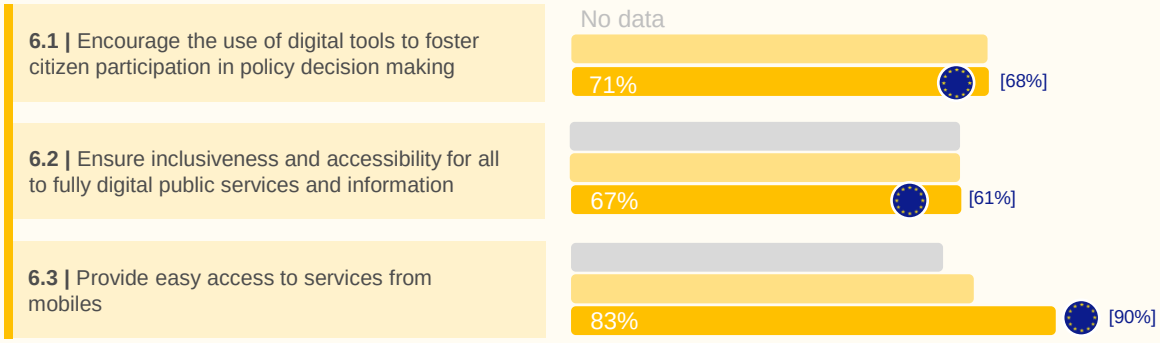
Policy Area 5
Digital sovereignty and interoperability

72%



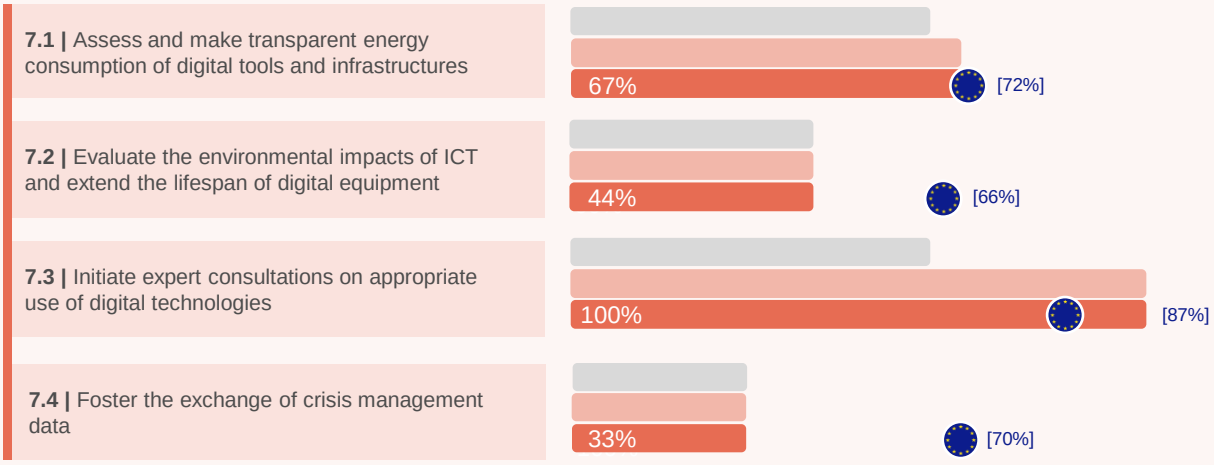
Policy Area 6
Digital empowerment and digital literacy

73%



Policy Area 7
Resilience and sustainability

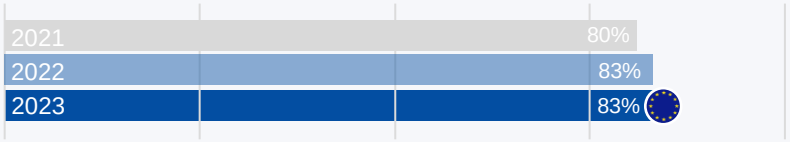
61%



Qualitative stories from Slovakia

Policy Area 1

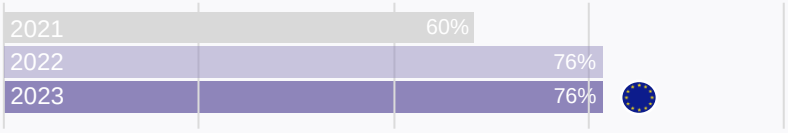
Promote fundamental rights and democratic values in the digital sphere



As one of the measures of the 2030 Strategy for the Digital Transformation of Slovakia, the Permanent Commission for Ethics and for the Regulation of Artificial Intelligence was set up in November 2020. The Permanent Commission is an independent advisory body made of experts from various fields, who act in their own capacity. Its main goals are to assess ethical and regulatory framework issues arising from the development, deployment and use of AI technologies, as well as preparing opinions on legislation in the field of the ethical aspects of AI. The Commission may also comment on draft laws at national level or legislative acts at international level. It holds regular meetings over the year, and it provides the Ministry of Investments, Regional Development and Informatisation of the Slovak Republic with its expertise in the area of AI and its regulation.

Policy Area 3

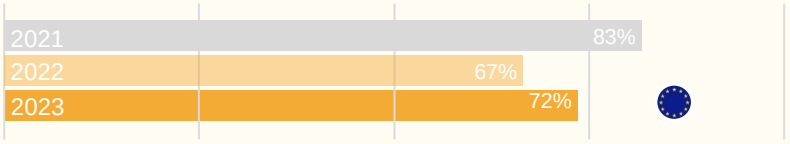
Foster digital empowerment and digital literacy



The National Digital Skills Strategy of the Slovak Republic and the Action Plan for the years 2023-2026 (NSDZaAP) is a government framework that defines the policy priorities of Slovakia in the context of the ongoing digital transformation of the economy and society. The strategy aims to address the digital skills needs of the country and outlines specific actions to be taken in the period from 2023 to 2026. This strategy and action plan are important documents that lay out the roadmap for developing digital skills and driving digital transformation in Slovakia.

Policy Area 5

Strengthen Europe's digital sovereignty and interoperability

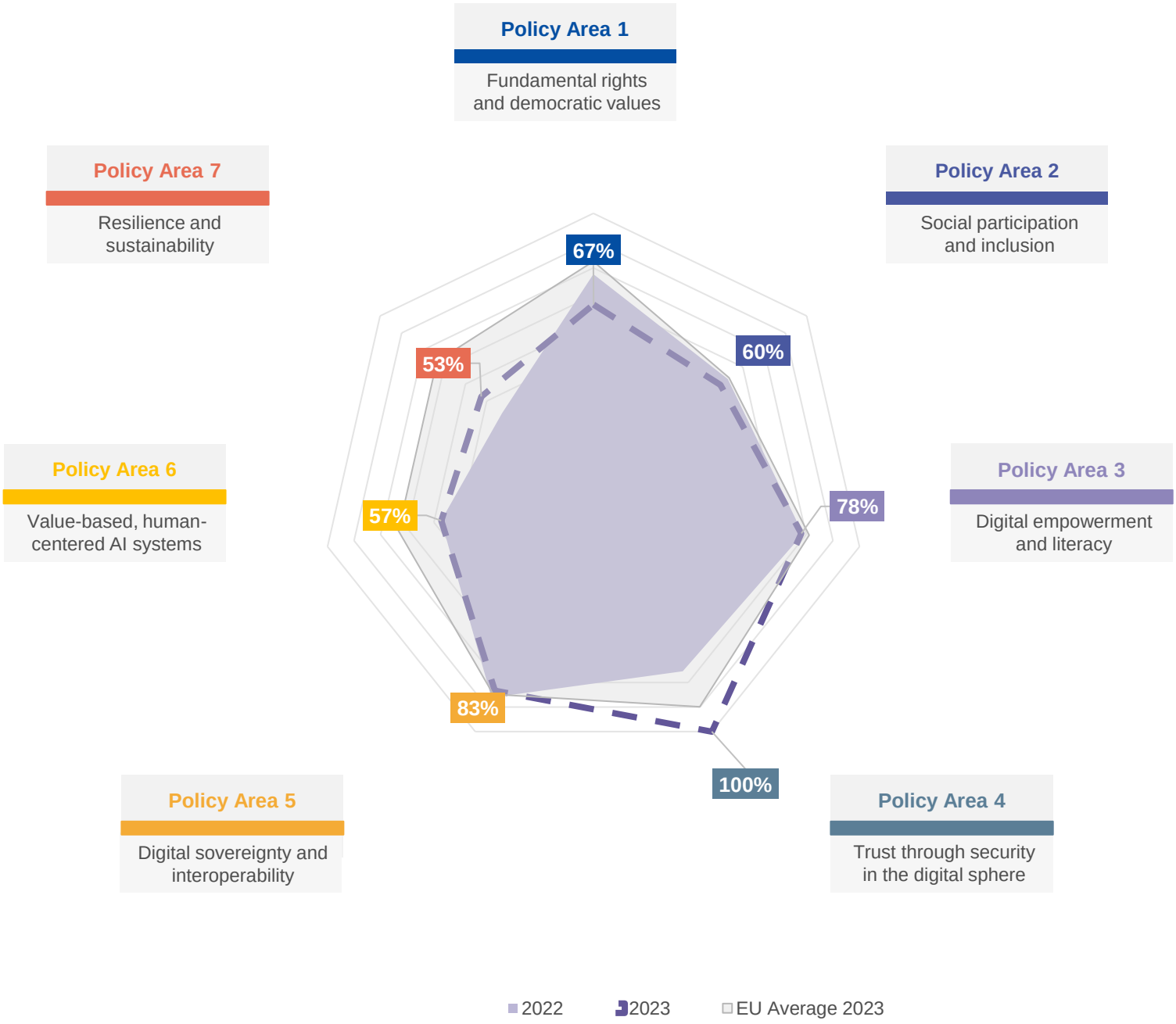


The National Broadband Connectivity Plan contributes to the Slovakia's digital sovereignty by ensuring that the country has the necessary infrastructure and connectivity to independently manage and control its digital communications and data. This allows Slovakia to reduce its dependence on external networks and technologies, thus enhancing its digital autonomy and sovereignty.

SLOVENIA

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Slovenia | Policy Areas level of implementation

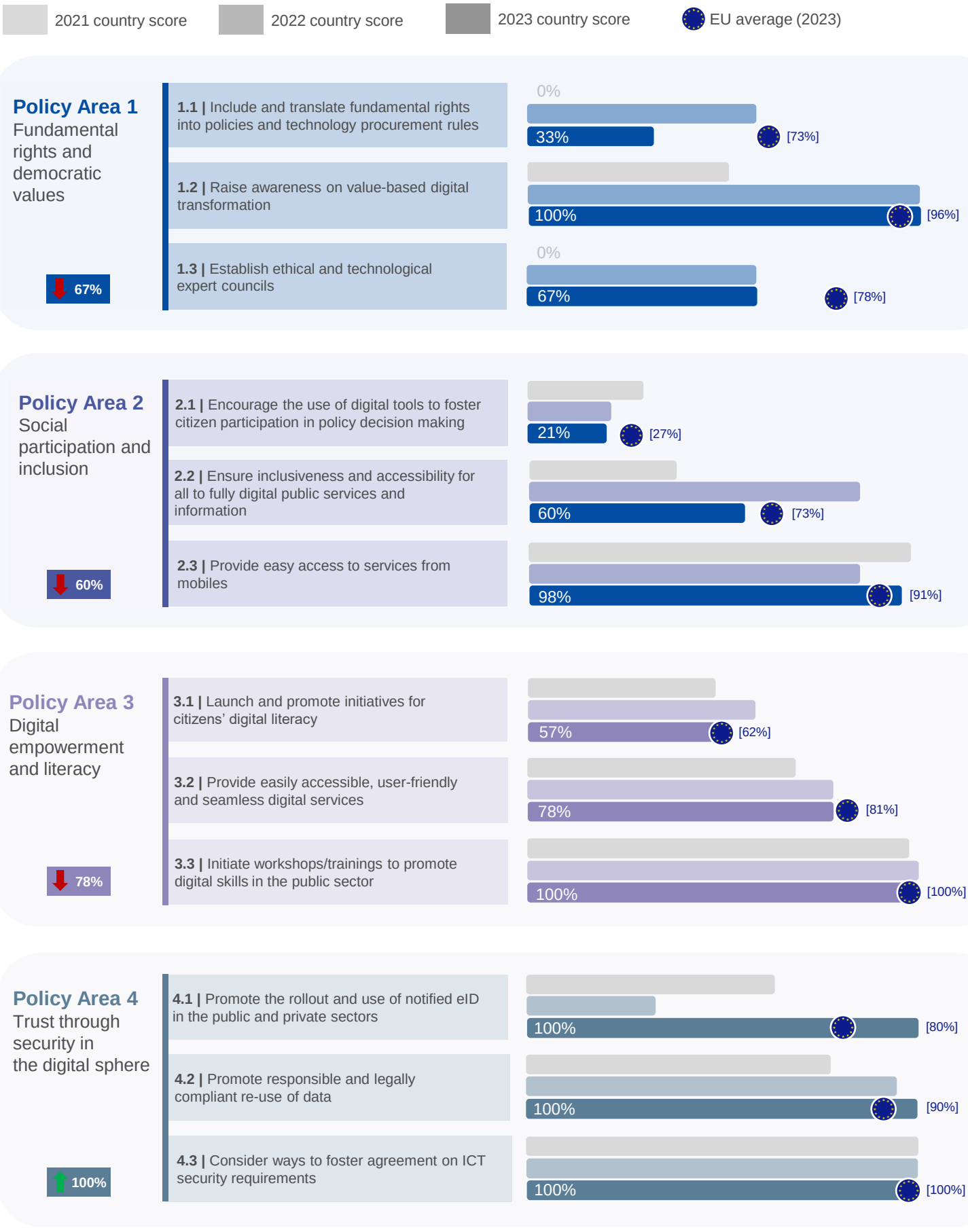


Overall, Slovenia's scores in the Berlin Declaration monitoring mechanism 2023 have shown varied trends compared to those of 2022. While Policy Area 6 has remained stable, Policy Areas 1, 2, 3, and 5 have experienced decreases, and Policy Areas 4 and 7 has encountered a significant increase.

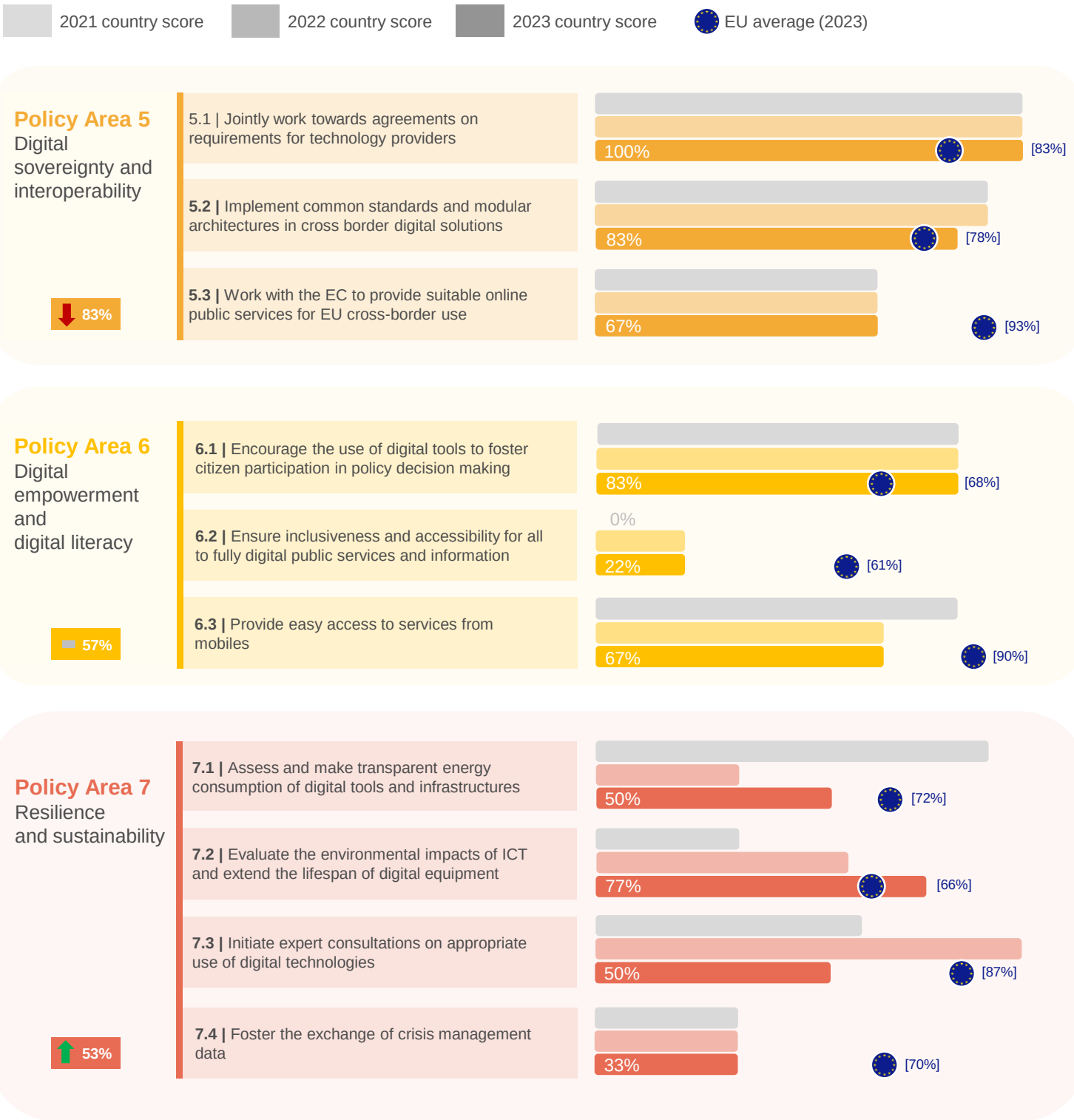
The most significant change for Slovenia compared to 2022 has been recorded for Policy Area 4, with a remarkable progress of 25 percentage points.

In addition, Slovenia scores below the EU average in six out of seven Policy Areas. Slovenia scores 67% in Policy Area 1 compared to an EU average of 82%, 60% in Policy Area 2 compared to 64%, 78% in Policy Area 3 compared to 81%, 100% in Policy Area 4 compared to 90%, 83% in Policy Area 5 compared to 85%, 57% in Policy Area 6 compared to 73%, and 53% in Policy Area 7 compared to 73%.

2023 BDM Results for Slovenia | Policy Actions level of implementation



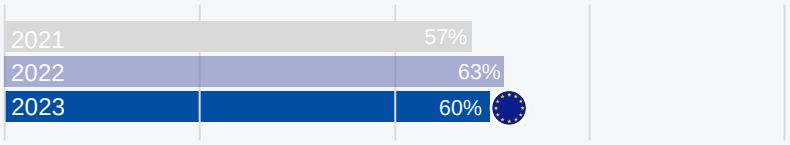
2023 BDM Results for Slovenia | Policy Actions level of implementation



Qualitative stories from Slovenia

Policy Area 2

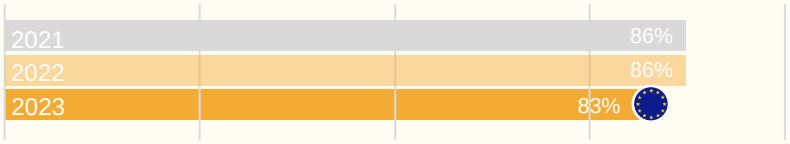
Enhance social participation and digital inclusion



At the Ministry of Digital Transformation, the project "Mobilni heroji" (Mobile Heroes) is being implemented, where older people strengthen their basic digital competencies for the safe and independent use of ICT with the help of a mobile unit. The mobile unit, which brings workshops on digital competencies to rural areas, will also make stops in smaller Slovenian municipalities. Older individuals can call the mobile unit by phone, and it will come to their location. The "Mobile Heroes" project significantly contributes to bridging the educational gap in ICT between urban and rural areas. It also helps reduce the disparity between the older population in Slovenia and the unstoppable progress of technology in general. Within the training sessions for participants, two basic workshops and four advanced ones are conducted. From May to November 2023, 5,533 participants were recorded.

Policy Area 5

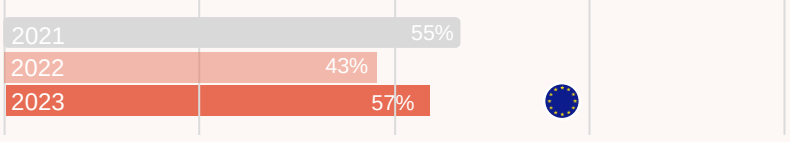
Strengthen Europe's digital sovereignty and interoperability



To guarantee digital sovereignty, Slovenia has established the CyberLab Open platform, which monitors cybersecurity and is the result of the work of various researchers. The platform operates on a large amount of already collected data and enables the use of digital twins for preventive testing of real devices and integration with AI. It has a positive impact on the level of cybersecurity in society and contributes positively to sustainability and resilience by raising awareness of cybersecurity, encouraging the use of other digital solutions. The rapid development of modern technology enables the digital transformation of both the economy and society, including domains that provide a stable and secure environment for the overall functioning of the State. These include defence, internal security, intelligence activities, protection and rescue, as well as all providers of essential services (energy, healthcare, transportation, water supply, banking, communications, etc.).

Policy Area 7

Foster resilience and sustainability in the digital society

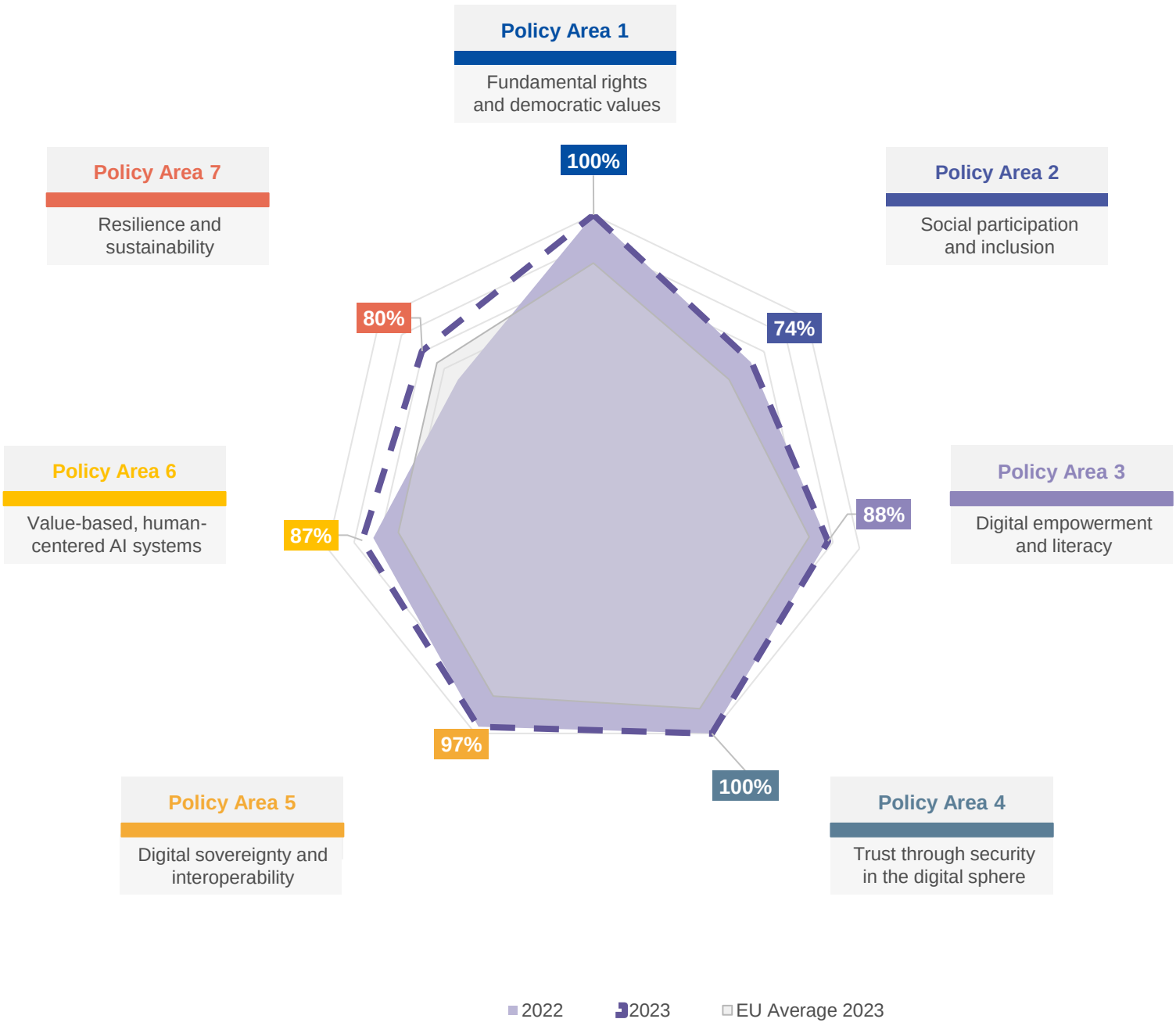


In 2023, the Ministry of Digital Transformation organised an interdepartmental event on cyberbullying, which is one of the most widespread forms of violence among young people. The Ministry of Digital Transformation has also initiated a media campaign entitled "Peer Violence and Hate Speech Online", which involves the production of TV commercials, their adaptation for social media, the creation of radio advertisements, and the printing of coloured stickers based on the creative design of the media campaign. The purpose of the campaign is to raise awareness throughout society and reduce peer violence and hate speech online.

SPAIN

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Spain | Policy Areas level of implementation



Overall, Spain's scores in the Berlin Declaration monitoring mechanism 2023 have shown consistency and improvement compared to those of 2022. While Policy Areas 1, 2, 3, 4, and 5 have remained stable with high scores, Policy Areas 6 and 7 have experienced increases.

The most notable increase for Spain compared to 2022 has been recorded for Policy Area 7, with a significant progress of 16 percentage points.

In addition, Spain scores above the EU average in all seven Policy Areas. Spain scores 100% in Policy Areas 1 compared to an EU average of 82%, 74% in Policy Area 2 compared to 64%, 88% in Policy Area 3 compared to 81%, 100% in Policy Area 4 compared to 90%, 97% in Policy Area 5 compared to 85%, 87% in Policy Area 6 compared to 73%, and 80% in Policy Area 7 compared to 73%.

2023 BDM Results for Spain | Policy Actions level of implementation

2021 country score | 2022 country score | 2023 country score | EU average (2023)

Policy Area 1
Fundamental rights and democratic values

100%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

No data

100% [73%]

1.2 | Raise awareness on value-based digital transformation

100% [96%]

1.3 | Establish ethical and technological expert councils

100% [78%]

Policy Area 2
Social participation and inclusion

74%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

24% [27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

100% [73%]

2.3 | Provide easy access to services from mobiles

98% [91%]

Policy Area 3
Digital empowerment and literacy

88%

3.1 | Launch and promote initiatives for citizens' digital literacy

75% [62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

90% [81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100% [100%]

Policy Area 4
Trust through security in the digital sphere

100%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100% [80%]

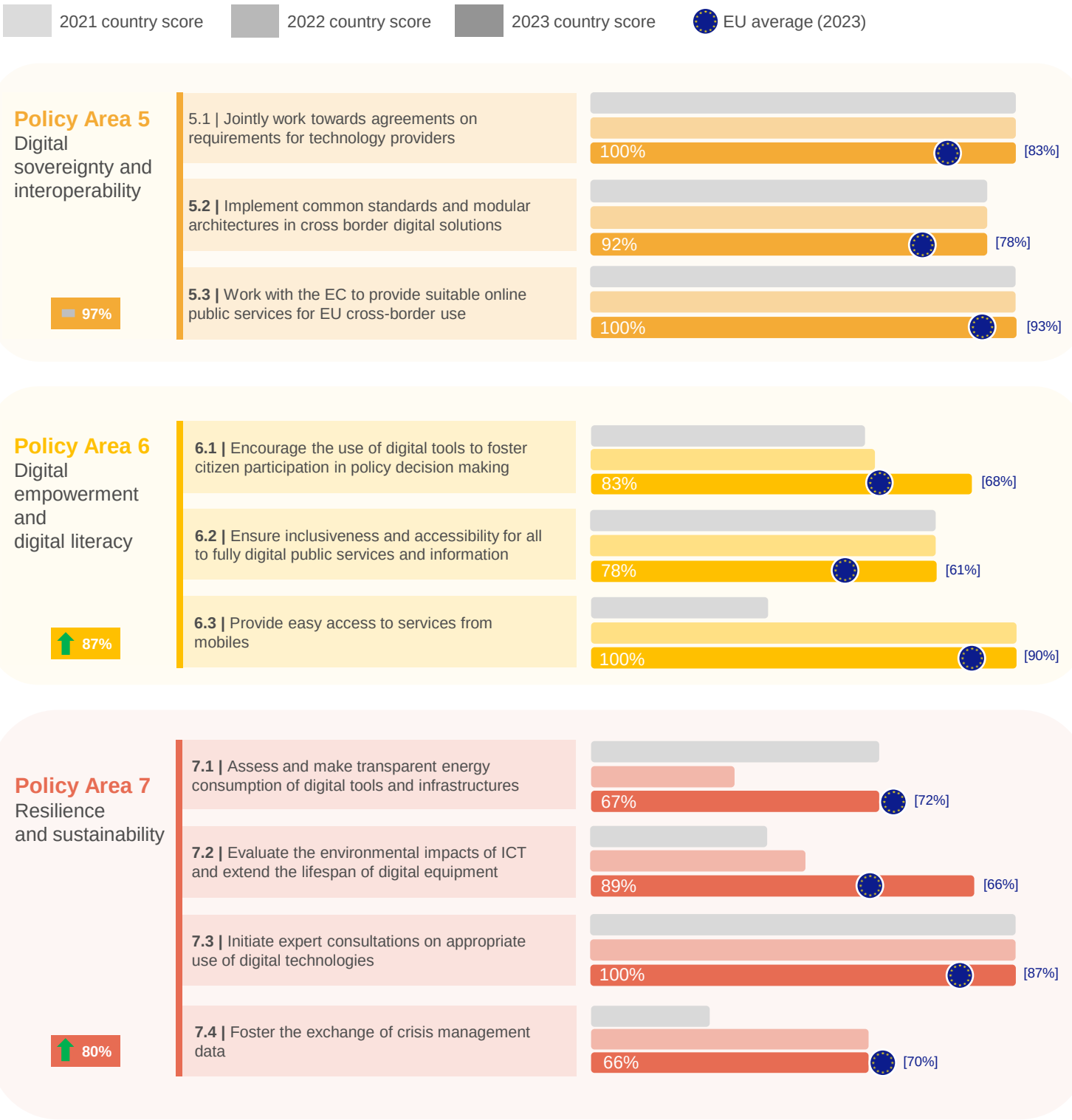
4.2 | Promote responsible and legally compliant re-use of data

100% [90%]

4.3 | Consider ways to foster agreement on ICT security requirements

100% [100%]

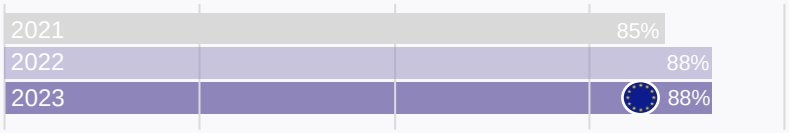
2023 BDM Results for Spain | Policy Actions level of implementation



Qualitative stories from Spain

Policy Area 3

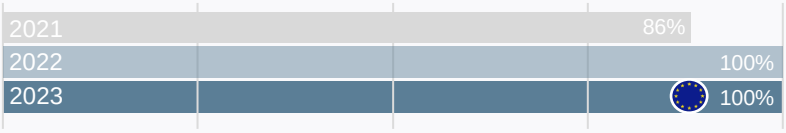
Foster digital empowerment and digital literacy



One of the main examples related to foster digital empowerment is the Digital literacy programme for rural women within the framework of the Agrarian Employment Promotion Program (PROFEA). It is framed within investment 3: Digital Skills for Employment, of component 19: National Digital Skills Plan -Digital Skills, of the Recovery, Transformation and Resilience Plan. In this investment, the State Public Employment Service is developing seven programmes with a total investment of 310 million euros, with the objective that, by the last quarter of 2025, at least 111,500 people will have participated in training actions on digital skills. It is carried out through a digital literacy training itinerary composed of five training actions that are taught in classroom mode with a duration of 26 hours each and that allow the digital training to be adapted to the level of digital competence of the women, as well as to their needs and their personal and employment history.

Policy Area 4

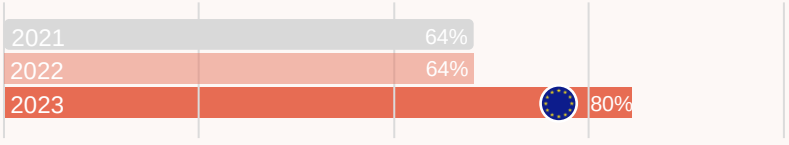
Strengthen trust through security in the digital sphere



Spanish Laws 39/2015 and 40/2015 promote the use of digital procedures to provide documents to public administrations. They also stipulate that interested parties should not be required by public administrations to provide documents prepared by them. Administrations must also collect documents electronically through their corporate networks or by consulting the Data Intermediation Platform (PID), which is a horizontal service that enables the 'Once-Only' principle. It simplifies administrative procedures, so that citizens or businesses do not have to deliver data or documents already held by public authorities, and to reduce fraud in applications and related procedures. Citizens can see their data exchanges through the one-stop-shop service called "Citizen's folder", thus providing transparency.

Policy Area 7

Foster resilience and sustainability in the digital society



Internet Segura for Kids (IS4K) is the Internet Safety Centre for minors in Spain. It is coordinated by SEDIA (Secretary of State for Digitalisation and Artificial Intelligence) and develops its services through INCIBE (National Institute of Cybersecurity). IS4K aims to promote the safe and responsible use of the Internet and ICTs among children and adolescents. Its campaigns, initiatives and resources are aimed at children, young people, families, teachers and professionals.

SWEDEN

2023 | Berlin Declaration Monitoring (BDM)

2023 BDM Results for Sweden | Policy Areas level of implementation

Overall, Sweden's scores in the Berlin Declaration monitoring mechanism 2023 have shown consistent performance and minor fluctuations compared to those of 2022. While Policy Areas 1, 5, 6, and 7 have remained stable, Policy Areas 2 and 3 has experienced a slight increase, and Policy Area 4 a slight decrease.

The most significant changes for Sweden compared to 2022 have been recorded for Policy Areas 2 and 3, with a progress of 1 percentage point each.

In addition, Sweden scores above the EU average in six out of seven Policy Areas. Sweden scores 100% in Policy Area 1 compared to an EU average of 82%, 65% in Policy Area 2 compared to 64%, 86% in Policy Area 3 compared to 81%, 98% in Policy Area 4 compared to 90%, 75% in Policy Area 5 compared to 85%, 56% in Policy Area 6 compared to 73%, and 86% in Policy Area 7 compared to 73%.

2023 BDM Results for Sweden | Policy Actions level of implementation

Policy Area 1
Fundamental rights and democratic values

100%

1.1 | Include and translate fundamental rights into policies and technology procurement rules

No data
No data
[73%]

1.2 | Raise awareness on value-based digital transformation

100%
[96%]

1.3 | Establish ethical and technological expert councils

100%
[78%]

Policy Area 2
Social participation and inclusion

65%

2.1 | Encourage the use of digital tools to foster citizen participation in policy decision making

35%
[27%]

2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information

60%
[73%]

2.3 | Provide easy access to services from mobiles

100%
[91%]

Policy Area 3
Digital empowerment and literacy

86%

3.1 | Launch and promote initiatives for citizens' digital literacy

64%
[62%]

3.2 | Provide easily accessible, user-friendly and seamless digital services

93%
[81%]

3.3 | Initiate workshops/trainings to promote digital skills in the public sector

100%
[100%]

Policy Area 4
Trust through security in the digital sphere

98%

4.1 | Promote the rollout and use of notified eID in the public and private sectors

100%
[80%]

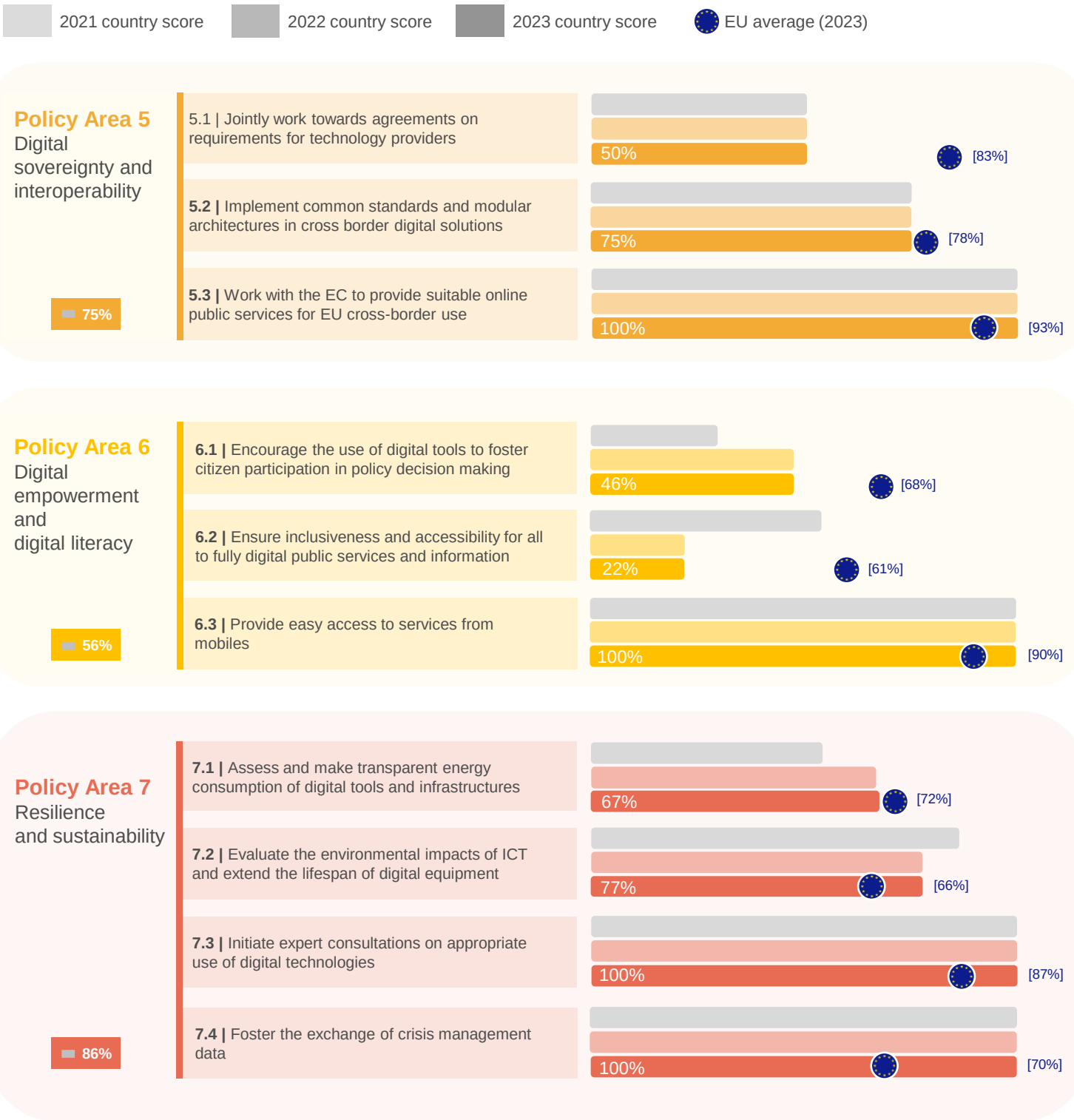
4.2 | Promote responsible and legally compliant re-use of data

93%
[90%]

4.3 | Consider ways to foster agreement on ICT security requirements

100%
[100%]

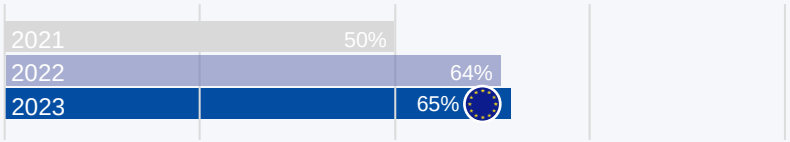
2023 BDM Results for Sweden | Policy Actions level of implementation



Qualitative stories from Sweden

Policy Area 2

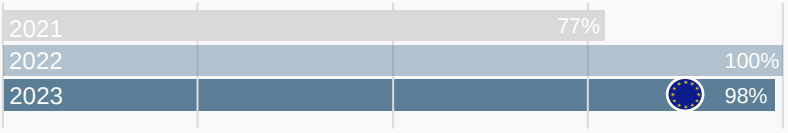
Enhance social participation and digital inclusion



There are several web-based platforms promoting digital inclusion in Sweden. For example, Digin.nu is an information website for questions and challenges regarding digital inclusion and accessibility, which focuses on providing information, inspiration, and guidance. Moreover, Digitalhjälpen is a portal for citizens to find support and step-by-step guides to the most common digital tools. There is also a free, online course to become a "Digital coach" that can help others take the first steps into the digital world. In 2023, Sweden also launched a new website that helps developers to implement the guidelines and legal requirements for digital accessibility for the public sector. The remodelling of the site was made based on feedback from users. The new site makes it easier to find the relevant information and to prioritise.

Policy Area 4

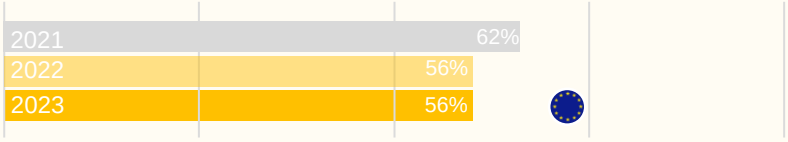
Strengthen trust through security in the digital sphere



The Swedish Agency for Digital Government (Digg) has launched an online course to train public servants to become "Data Ambassadors" that can inspire and support their respective organisations to share and use data and Open Data. The use of eID is widespread in Sweden, but the current solutions are not accessible to all for several reasons and do not reach the highest level of assurance according to eIDAS. The government have given Digg the task to develop a new national eID and it is also being considered to make it mandatory for public bodies to accept all approved eID schemes.

Policy Area 6

Create value-based, human-centred AI systems for use in the public sector



The municipality of Skellefteå has developed a human-centred digital solution to support and enable people to participate in the city's cultural centre "Sarakulturhus". The digital solution combines technologies from AI and augmented reality (AR) to help in both the presentation of information and the physical navigation within the cultural centre for people with, for example, visual impairments and/or cognitive and mental disabilities. The solution was tested and further enhanced together with representatives of the targeted categories, along with participants from different age cohorts. The human-centred technology developed in Skellefteå has helped increase the sense of independence for more groups of people and has created more space for participation in the city's cultural events and facilities in service of the common good.

4. Conclusions

As illustrated in the above sections, a monitoring mechanism like the BDM can be a powerful tool to encourage Member States to make progress in various policy areas at the national level. The BDM, in fact, established a system of accountability requiring Member States to report on their progress in implementing the seven principles outlined in the Declaration. This system fostered transparency, ensuring countries are held accountable for their commitments at both the national and EU levels. By providing annual results and enabling comparative analysis of Member States' performance, the BDM has allowed countries to measure their progress relative to their peers, identify areas for improvement, and learn from the successes of others. Furthermore, the BDM has supported decision-makers at national and EU levels in setting budgetary priorities and goals in the digital domain, laying the groundwork for future funding requests, and identifying gaps where the European Commission and other EU institutions and agencies might need to intervene or offer assistance in the future.

However, the comparative analysis of the results indicates that while there has been progress in all Policy Areas, disparities remain among Member States and across Policy Actions. For example, some countries have shown progress over time and expanded their initiatives for citizens and businesses, whereas others still require further support to align with the EU average and complete the transition to fully functional digital public administrations.

It is also important to acknowledge some limitations of the BDM framework. First, to improve monitoring accuracy and consistency, it would be beneficial to rely more on data collected through direct measurement and secondary data rather than self-assessment (primary data), which can be influenced by human bias. Second, some Member States did not report data related to certain Policy Actions at times, resulting in particularly low scores even though national initiatives might exist. Third, between 2021 and 2022, some KPIs changed to improve the framework's clarity or replace secondary data that is no longer collected. Although these changes were minor, they may have affected the interpretation and understanding of respondents, impacting how they assessed certain survey elements.

Overall, as an initiative driven by Member States, the BDM provided an opportunity for European public administrations to actively shape the strategic direction of digital transformation in Europe and ensure cohesive collaboration and common objectives for EU countries. It also served as a guide for navigating the digital transition post-COVID-19. Despite the deadline for implementing the Declaration's objectives ending in 2023, its principles will continue to guide digital transformation efforts beyond this date. Looking ahead, the digital plans and strategies adopted by the European Commission in the context of the Digital Decade Policy Programme for 2030 will continue to support Member States in their efforts and goals.

Appendix I – Methodology

This first Appendix has the objective of providing an overview of the rationale behind the Berlin Declaration and the creation of its dedicated monitoring mechanism (BDM). It also shows how the BDM was developed and deployed, using a two-step approach: the design phase followed by the implementation phase. Furthermore, a revision phase has been undertaken over time to amend some of the KPIs and the related questions of the BDM, based on feedback received from Member States. Finally, this Appendix also provides the limitations (and related mitigating measures) of this monitoring mechanism.

1.1. Rationale and objectives

By means of the Berlin Declaration on Digital Society and Value-based Digital Government, each EU Member State agreed to implement a set of 22 Policy Actions and related commitments in its national frameworks by 2024. To assess the level of implementation of these Policy Actions and to identify Member States' progress over the years, a dedicated monitoring mechanism has been created, with the first data collection in 2021 and the last one in 2023. This initiative was led by the National Interoperability Framework Observatory (NIFO) of the European Commission, in parallel to the monitoring of the European Interoperability Framework (EIF) so as to ensure coherence between the two monitoring mechanisms.

1.2. Approach to design the monitoring mechanism

Design phase

The design phase is meant to define the theoretical framework on which the monitoring mechanism is based, as well as its underlying indicators. More specifically, the design phase includes:

> Designing the structure of the monitoring mechanism defining the elements to be measured, the granularity levels and how they relate to one another (i.e., the theoretical framework) based on the Declaration itself;
> Identifying a set of secondary indicators from existing data sources to assess each of the Policy Actions, complemented with custom-made primary indicators;
> Defining the scoring mechanism (i.e., the method to aggregate the indicators) with support from the Joint Research Centre - Competence Centre on Composite Indicators and Scoreboards (JRC – COIN) to ensure the creation of a statistically solid assessment framework;
> Validating the drafted monitoring mechanism through stakeholder consultations (i.e., volunteer Member States and relevant contact points in the Member States); and
> Designing the questionnaire to collect primary data from the Member States.

The output of the design phase is the BDM itself with a defined theoretical framework, a robust set of indicators and a statistically sound methodology to conduct the analysis of gathered data

The secondary indicators were collected from existing information sources that are publicly available to avoid the duplication of data requests in line with the Once-Only Principle:

- Open Data Portal:
  - 1. Open data policy – 'Does the strategy/policy outline measures to support the re-use of open data by the public sector?' (BDM KPI 23)
  - 1. Open data policy – 'Existence of an Open Data portal (extent to which data can easily be found at one central place for reuse purposes)' (BDM KPI 24)
  - 1. Open data policy – 'Existence of specific activities to support for the reuse of Open Data' (BDM KPI 25)
- DESI - Digital Economy and Society Index:
  - '2a Internet User Skills - 2a1 At least basic Digital Skills (People with "basic" or "above basic" digital skills in each of the following four dimensions: information, communication, problem-solving and software for content creation (as measured by the number of activities carried out during the previous 3 months))' (BDM KPI 13)
  - 'Dimension 1 on Connectivity', now 'Dimension 2 on Digital Infrastructures' (BDM KPI 14)
  - 'Dimension 5 on Digital Public Services Dimension comprising of eGovernment' (BDM KPI 18)
- eGovernment Benchmark:
  - '2.3 Transparency of service design - E2 Does the website provide information on the user's ability to participate in policy making process?' (BDM KPI 7)
  - '2.3 Transparency of service design - E4 Does the website provide information on how users can enrol in any activity to improve the design and delivery of services?' (BDM KPI 8)
  - 'Mobile Friendliness' (BDM KPI 10)
  - 'Online Availability - User Centricity' (BDM KPI 15)
- CEF:
  - Notification to the European Commission of the national eID scheme (BDM KPI 20)
  - Number of eIDAS nodes that have passed the interoperability test (BDM KPI 21 – Deleted for 2022 data collection)
- DG CONNECT:
  - Compliance with the Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018 establishing a single digital gateway to provide access to information, procedures and to assistance and problem-solving services. (BDM KPI 27 – Eventually removed in 2023 as the deadline for implementing Regulation (EU) 2018/1724 is set for the end of 2023)

For the Policy Actions that cannot be fully evaluated using secondary data sources, a set of custom-made primary indicators was designed, and data was collected through an online survey sent to contact points in all the Member States. Hence, the BDM partly relies on a self-assessment provided by Member States' administrations on the actions and initiatives in place for the 22 Policy Actions of the Declaration.

Implementation phase

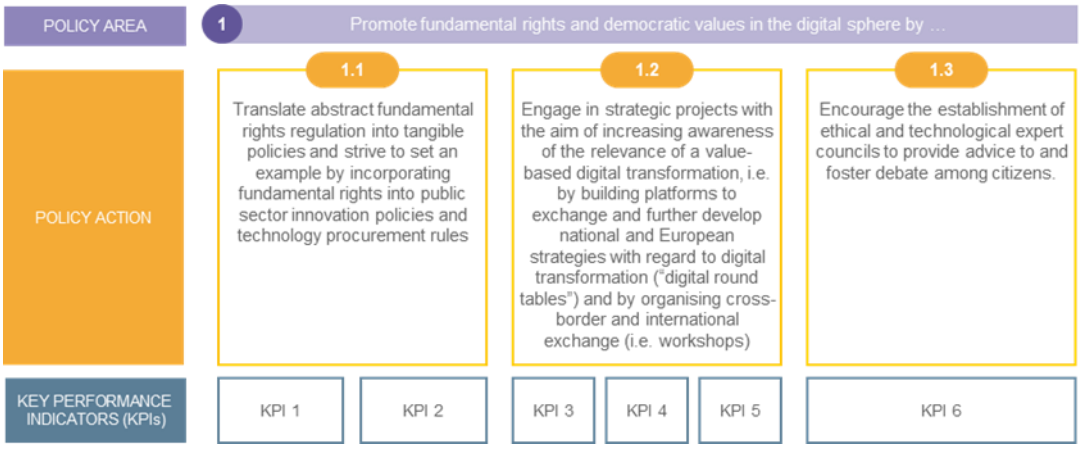
Following the design of the BDM, the implementation phase consists in launching the data collection through an EU-wide questionnaire to gather data for primary indicators. The data collection will be conducted jointly with the one of the EIF monitoring mechanisms in a combined online questionnaire to reduce the reporting burden on the Member States.

1.3. Theoretical Framework

The BDM is targeted at assessing the level of implementation of the 22 Policy Actions (detailed in Appendix III) taken by the EU Member States with the signature of the Berlin Declaration. These are a set of statements that the Member States have committed to achieving in their respective countries by 2024. They are clustered into 7 Policy Areas (detailed in Appendix III), which are themselves in line with the 7 principles set out by the Declaration. The BDM's objectives are focused on monitoring the implementation of the Policy Actions by the Member States; as such, the Policy Actions mentioned in the Berlin Declaration to be achieved by the European Commission and other EU institutions are discarded from the BDM.

The architecture of the BDM is based on three granularity levels: the 7 Policy Areas (level 1) aggregating the 22 Policy Actions (level 2) assessed through a set of KPIs (level 3). For each level, all elements encompassed do not overlap and are of equal importance and weight. Figure 7 below shows an excerpt of the theoretical framework with the three levels for Policy Area 1 on the promotion of fundamental rights and democratic values in the digital sphere.

Figure 9 - Excerpt of the theoretical framework for Policy Area 1



The assessment of each Policy Action relies on a set of primary and/or secondary KPIs. The secondary indicators are collected from existing information sources publicly available (e.g., Open Data Portal, Digital Economy and Society Index (DESI)) to avoid the duplication of data requests in line with the Once-Only Principle. For Policy Actions that cannot be fully evaluated using secondary data sources, a set of custom-made primary indicators is designed and collected through a questionnaire issued to contact points in all the Member States.

1.4. Scoring Mechanism

The implementation of the Policy Actions defined under the Berlin Declaration by the Member States was assessed on a **percentage scale** (i.e., from 1 to 100%), based on the level of completion of each of the KPIs. Such a scale allows the alignment of the BDM with existing monitoring activities such as the European Commission's eGovernment Benchmark and provides a readable score.

The percentage of implementation for each Policy Action has been calculated as the **arithmetic mean** of the KPIs, designed to assess the corresponding Policy Action, for which it is assumed that all KPIs are of equal importance and weight. Similarly, the percentage of implementation for each Policy Area will be calculated as the **arithmetic mean** of the percentages of implementation of all of its underlying Policy Actions. At each granularity level, the aggregation provides a result only if at least two-thirds (66.66%) of underlying values are available. Meaning that if there is above 33.33% of unavailable values (i.e., "no data"), the following aggregation level will provide a "no data" result as well. Such a statistical rule has been established to ensure that the aggregated results at Policy Action and Area level are relevant with sufficient underlying data to carry meaning.

1.5. Revision

Based on Member States' feedback received in the frame of the first BDM data collection in 2021 and 2022, some modifications were performed to the mechanism, survey questions and related definitions, and were implemented into the 2022 and 2023 editions. The justification for such amendments was to align with the feedback received from the Member States and to improve the clarity and ease of completion of the online survey. However, it is important to bear in mind that these changes may affect the comparability of results over the years, since some of the KPIs and survey questions have been removed, replaced, or modified. In addition to these changes, more definitions were provided throughout the survey by using tooltips. These definitions have been discussed and validated with some Member States.

Therefore, Tables 2 and 3 below provides an overview of the various changes made to the BDM KPIs (primary sources only) and related survey questions starting from the 2022 data collection. The changes are highlighted in blue police.

[10] The arithmetic mean, also called the mean or the average, is the sum of a collection of numbers divided by the count of numbers in the collection.

Table 1 - Berlin Declaration Monitoring Mechanism (2022 edition) and related changes

KPI ID	KPI Title	Impacted Policy Areas/Actions	Question ID	Survey Question (2022 edition)
KPI 1	Inclusion of fundamental rights principles in public sector innovation policies	Policy Area 1 Policy Action 1.1	Q44	The fundamental rights are defined in the EU Charter of Fundamental Rights. However, their translation into policy might be challenging and subject to interpretation. In your country, are there any structured processes (e.g., guidelines, documentation, controls) to support the translation of fundamental rights into...: - Public sector innovation policies (KPI 1) - Technology procurement rules (KPI 2)
KPI 2	Inclusion of fundamental rights principles in technology procurement rules	Policy Area 1 Policy Action 1.1	Q44	The fundamental rights are defined in the EU Charter of Fundamental Rights. However, their translation into policy might be challenging and subject to interpretation. In your country, are there any structured processes (e.g., guidelines, documentation, controls) to support the translation of fundamental rights into...: - Public sector innovation policies (KPI 1) - Technology procurement rules (KPI 2)
KPI 3	Number of workshops/events organised on cross-border initiatives at the national level or European level This KPI has been removed from the framework.	Policy Area 1 Policy Action 1.2	/	/
KPI 4	Existence of platforms to exchange and further develop national strategies for digital transformation	Policy Area 1 Policy Action 1.2	Q45	Is your country engaged in strategic projects to increase awareness of the relevance of a value-based digital transformation at the national or EU level in the past year? - Through the organisation of workshops or events at the national level. - Through any initiatives (e.g., portals, programmes, communities) on knowledge sharing between practitioners of administrative innovation strategies. - Through any cross-border and international exchange aimed at increasing awareness of the relevance of the value brought by digital transformation (e.g., through digital roundtables, workshops, etc.)

KPI ID	KPI Title	Impacted Policy Areas/Actions	Question ID	Survey Question (2022 edition)
KPI 5	Existence of strategic projects to increase awareness of the relevance of a value-based digital transformation	Policy Area 1 Policy Action 1.2	Q45	Is your country engaged in strategic projects to increase awareness of the relevance of a value-based digital transformation at the national or EU level in the past year? - Through the organisation of workshops or events at the national level. - Through any initiatives (e.g., portals, programmes, communities) on knowledge sharing between practitioners of administrative innovation strategies. - Through any cross-border and international exchange aimed at increasing awareness of the relevance of the value brought by digital transformation (e.g., through digital roundtables, workshops, etc.)
KPI 35	Existence of strategic projects to increase awareness of the relevance of a value-based digital transformation	Policy Area 6 Policy Action 6.3	Q45	Is your country engaged in strategic projects with the aim of increasing relevance of a value-based digital transformation at the national or EU level in the past year? - Through the organisation of workshops or events at the national level. - Through any initiatives (e.g., portals, programmes, communities) on knowledge sharing between practitioners of administrative innovation strategies. Through any cross-border and international exchange aimed at increasing awareness of the relevance of the value brought by digital transformation (e.g., through digital roundtables, workshops, etc.)
KPI 6	Existence of initiatives promoting the setup of ethical and technological expert councils to provide advice to, and foster debate among citizens	Policy Area 1 Policy Action 1.3	Q46	Has your country established an ethical and/or technological expert council at the national level to provide advice and foster debate among citizens? - Ethical council - Technological council
KPI 12	Existence of a national strategy to enable citizens to use their mobile devices to access digital public services	Policy Area 2 Policy Action 2.3	Q48	Has your country developed a national strategy or implemented initiatives (e.g. development of solutions, creation of guidelines for the deployment of digital public services, etc.) to enable citizens to use their mobile devices to access digital public services?

KPI ID	KPI Title	Impacted Policy Areas/Actions	Question ID	Survey Question (2022 edition)
KPI 14	Dimension 2 - Digital Infrastructures 2 out of the 9 previously collected indicators are not collected anymore.	Policy Area 3 Policy Action 3.1	Secondary data (DESI)	Please note that, due to this change, corresponding results at KPI, Policy Action and Policy Areas levels cannot be compared to 2021 results.
KPI 17, now KPI 45	Internet use: Website or app of public authorities The previous indicator (IGOV12) is not collected from 2022. Hence, a proxy indicator (IGOVANYS) will be used from 2022 onward.	Policy Area 3 Policy Action 3.2	Secondary data (Eurostat)	Please note that, due to this change, corresponding results at KPI, Policy Action and Policy Areas levels cannot be compared to 2021 results.
KPI 19	Promotion of digital skills and awareness in the public sector	Policy Area 3 Policy Action 3.3	Q49	About the activities, you have put in place in your country to promote digital skills and awareness (by 'digital awareness' we mean the knowledge of the existence of something, or understanding/ perception of a situation or subject/fact at present based on information or experience. This includes digital awareness, which can be described as the awareness of the knowledge, skills and attitudes required for individuals to use digital tools effectively) in the public sector, what are the areas in which you focus the most? - Digital skills in public administrations (for public servants) - Digital skills in the education system (for teachers and students) - Digital skills for businesses and access to a skilled talent pool of qualified workforce - Advanced digital skills amongst the working population - Basic digital skills for all citizens - Digital skills in the healthcare system

KPI ID	KPI Title	Impacted Policy Areas/Actions	Question ID	Survey Question (2022 edition)
KPI 21	Number of eIDAS nodes that have passed the interoperability test This KPI has been removed from the 2022 data collection as it has not been collected in 2022.	Policy Area 4 Policy Action 4.1	Secondary data (CEF)	Please note that, due to this change, corresponding results at KPI, Policy Action and Policy Areas levels cannot be compared to 2021 results.
KPI 22	Incentives for private sector bodies to use European trustworthy and notified eID	Policy Area 4 Policy Action 4.1	Q50	Has your country provided the private sector with any incentives (By "incentive" we mean a motive for acting in a certain way, a procedure designed to encourage a desired response from people. Such incentives can be monetary and non-monetary) (e.g., allowing eIDAS for identification on the private website) to use eIDAS notified eIDs?
KPI 25	Existence of specific activities to support for the reuse of Open Data This indicator has been deleted from the BDM framework because it has been removed from the European Open Data Portal and no substitute KPI could be identified.	Policy Area 4 Policy Action 4.2	Secondary data (European Open Data Portal)	Please note that, due to this change, corresponding results at KPI, Policy Action and Policy Areas levels cannot be compared to 2021 results.

KPI ID	KPI Title	Impacted Policy Areas/Actions	Question ID	Survey Question (2022 edition)
KPI 27	Compliance with the Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018 establishing a single digital gateway to provide access to information, procedures and assistance and problem-solving services. This KPI is not considered for the 2022 data collection, as it is related to the SDG Regulation which is to be implemented by December 2023 by Member States.	Policy Area 4 Policy Action 4.2	/	/
KPI 37	Adoption of implementing acts following Article 24(2) of Directive (EU) 2019/944 (this is not linked to primary sources, but to a secondary source - database of implementing acts of the Commission, here you can see when an implementing act is adopted). This KPI has been removed from the framework.	Policy Area 7 Policy Action 7.1	/	/

KPI ID	KPI Title	Impacted Policy Areas/Actions	Question ID	Survey Question (2022 edition)
KPI 38	Participation to actions at EU Level for improving the interoperability in smart buildings and products This KPI has been removed from the framework.	Policy Area 7 Policy Action 7.1	/	/

Table 2 - Berlin Declaration Monitoring Mechanism (2023 edition) and related changes

KPI ID	KPI Title	Impacted Policy Areas/Actions	Question ID	Survey Question (2023 edition)
KPI 21	Number of eIDAS nodes that have passed the interoperability test After not having been collected in either 2022 or 2023, this KPI has been removed from the framework.	Policy Area 4 Policy Action 4.1	Secondary data (CEF)	Please note that, due to this change, corresponding results at KPI, Policy Action and Policy Areas levels cannot be compared to 2021 results.
KPI 27	Compliance with the Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018 establishing a single digital gateway to provide access to information, procedures and assistance and problem-solving services. This KPI has been removed from the framework since the Regulation is to be implemented by December 2023 by Member States.	Policy Area 4 Policy Action 4.2	/	/

KPI ID	KPI Title	Impacted Policy Areas/Actions	Question ID	Survey Question (2022 edition)
KPI 14	Dimension 2 - Digital Infrastructures Data are not collected at Dimension level anymore, thus data from 2022 were reused.	Policy Area 3 Policy Action 3.1	Secondary data (DESI)	Please note that, due to this change, corresponding results at KPI, Policy Action and Policy Areas levels cannot be compared to 2021 results.
KPI 18	Internet use: Website or app of public authorities Data are collected at Dimension level anymore, thus data from 2022 were reused.	Policy Area 3 Policy Action 3.2	Secondary data (DESI)	Please note that, due to this change, corresponding results at KPI, Policy Action and Policy Areas levels cannot be compared to 2021 results.
KPI 24	Existence of an Open Data portal (extent to which data can easily be found at one central place for reuse purposes) For 2022 and 2023, there is no equivalence with data collected in 2021. For this reason, it is assumed that all Member States have an Open Data portal in place, thus all countries received a score of 10 out of 10.	Policy Area 4 Policy Action 4.2	Secondary data (Open Data Portal)	Please note that, due to this change, corresponding results at KPI, Policy Action and Policy Areas levels cannot be compared to 2021 results.

1.6. Limitations

The BDM presents some limitations that can be drawn from the data collection exercise. It is important to note the following:

- **Limiting, to the extent possible, the monitoring burden on Member States –** To monitor the digital transformation of the public sector, the BDM relies on a variety of secondary data sources (such as DESI, eGovernment Benchmark, etc.). However, due to the innovative nature of the Declaration upon which the BDM is based, a significant number of KPIs based on primary data were necessary, increasing the efforts and workload for Member States. The use of primary data sources is also due to the formulation of the BDM Policy Areas and Actions which presented a challenge as they were conceptual and difficult to translate into measurable KPIs, resulting in the use of proxy indicators.
- **Minimising human bias in the data collection –** To improve monitoring accuracy and consistency, it would be beneficial to rely more on data collected through direct measurement (secondary data) rather than self-assessment (primary data), which can be influenced by human bias. Existing data sources that could be reused are investigated regularly.
- **Ensuring the comparability of results over time –** There is no doubt that the stability of the KPIs of the BDM needs to be secured to ensure that the results are comparable over time and, therefore, to maintain the sustainability of the monitoring exercise. However, some changes were necessary to improve the clarity of the framework and related KPIs for Member States and to facilitate their participation in the online survey. Although the changes made are not necessarily major, they may have altered the interpretation and understanding by the Member States, and therefore, the way they assessed the element in the survey questions. Changes to some KPIs and related questions should be kept in mind when analysing Member States' results over time.

Appendix II – BDM databases

Principle	ID Policy area	Policy area	ID MS Policy action	MS Policy action	ID KPI	KPIs	Source
Validity and respect of fundamental rights and democratic values	1	Promote fundamental rights and democratic values in the digital sphere by	1.1	Translate abstract fundamental rights regulations into tangible policies and strive to set an example by incorporating fundamental rights into public sector innovation policies and technology procurement rules.	KPI 1	Inclusion of fundamental rights principles in public sector innovation policies.	Survey
					KPI 2	Inclusion of fundamental rights principles in technology procurement rules.	Survey
			1.2	Engage in strategic projects with the aim of increasing awareness of the relevance of a value-based digital transformation, i.e. by building platforms to exchange and further develop national and European strategies with regard to digital transformation ("digital round tables") and by organising cross-border and international exchange (i.e. workshops)	KPI 4	Existence of platforms to exchange and further develop national strategies with regard to digital transformation.	Survey
					KPI 5	Existence of strategic projects with the aim of increasing awareness of the relevance of a value-based digital transformation	Survey
			1.3	Encourage the establishment of ethical and technological expert councils to provide advice to and foster debate among citizens.	KPI 6	Existence of initiatives promoting the set up of ethical and technological expert councils to provide advice to, and foster debate among citizens.	Survey
Social participation and digital inclusion to shape the digital world	2	Enhance social participation and inclusion by	2.1	Put co-creation and collaboration with citizens into practice and encourage the use of digital tools to foster participation of citizens in political-decision-making	KPI 7	Online information on citizens ability to participate in policy making processes.	eGovernment Benchmark
					KPI 8	Online information on how users can enrol in activities to improve the design and delivery of services.	eGovernment Benchmark
			2.2	Ensure that the digital transformation is inclusive of and accessible for persons with disabilities and elderly persons and increase our efforts to make public services and information fully digitally accessible in accordance with the Web Accessibility Directive and the European Accessibility Act	KPI 9	Compliance with the European accessibility standards of the Directive on the accessibility of the websites and mobile applications of public-sector bodies	EIF Monitoring Mechanism
			2.3	Provide easy access to services for the mobile channel by enabling citizens to use their mobile devices to carry out digital public services and by cooperating at EU level in establishing necessary elements for ensuring mobile device interoperability across borders	KPI 10	Mobile Friendliness	eGovernment Benchmark
					KPI 11	Cooperation between EU Member States to ensure cross-border access to services via the mobile channel	Survey
					KPI 12	Existence of a national strategy to enable citizens to use their mobile devices to access digital public services	Survey
Empowerment and digital literacy	3	Foster digital empowerment and digital literacy by	3.1	Launch and promote initiatives to ensure that the general public is equipped with access and a minimum understanding of digital technologies and digital skills (i.e. online service of "digital ambassadors")	KPI 13	Human capital – digital skills	Eurostat
					KPI 14	Connectivity"	DESI
			3.2	Continue to provide easily accessible, user-friendly services and seamless digital public services, tools and applications	KPI 15	Online Availability - User Centricity	eGovernment Benchmark
					KPI 16	Extent to which strategies or frameworks take the EIF into account	EIF Monitoring Mechanism
					KPI 45	Internet use: Website or app of public authorities	Eurostat - Table E-government activities of individuals via websites
					KPI 18	Digital Public Services Dimension comprising of eGovernment"	DESI
			3.3	Initiate workshops, training etc. in order to promote digital skills and awareness in the public sector	KPI 19	Promotion of digital skills and awareness in the public sector	Survey
Trust and security in digital government interactions	4	Strengthen trust through security in the digital sphere by	4.1	Promote the rollout and use of notified eID means and introduce incentives for the private sector to use European trustworthy and notified eID	KPI 20	Notification to the European Commission of the national eID scheme	CEF Dashboard
					KPI 22	Incentives for private sector bodies to use European trustworthy and notified eID	Survey
			4.2	Promote responsible and legally compliant re-use of data and the Once-Only Principle in line with the Tallinn Declaration and encourage new concepts such as personal data management based on user consent.	KPI 23	Strategy/policy outline measures supporting the re-use of open data by the public sector	Open Data Portal
					KPI 24	Existence of an Open Data portal (extent to which data can easily be found at one central place for reuse purposes)	Open Data Portal
					KPI 26	Existence of raising awareness initiatives on new concepts such as personal data management based on user consent	Survey
			4.3	Consider ways to foster agreement on ICT security requirements	KPI 28	Level of security and privacy defined for public authorities	EIF Monitoring Mechanism
Digital sovereignty and interoperability	6	Strengthen Europe's digital sovereignty and interoperability by	5.1	Jointly work towards agreements on requirements for technology providers and solutions in the public sector that are essential for digital sovereignty	KPI 29	Participation of Member States in at least one EU Action essential for digital sovereignty	Survey
			5.2	Establishing common standards and modular architectures	KPI 30	Use of common standards, modular architecture and consideration of open source software in the development and deployment of cross-border digital solutions	Survey
			5.3	Work with the European Commission to jointly agree on concrete deadlines and criteria such as a demand driven approach for providing further suitable public services online for EU cross-border use	KPI 31	Extent to which a Member State is meeting the requirements set by the Single Digital Gateway Regulation on the online availability and accessibility of the administrative procedures	EIF Monitoring Mechanism
Human-centred systems and innovative technologies in the public sector	8	Create value-based, human-centred AI systems for use in the public sector by	6.1	Foster transparency and accountability i.e. by revealing when automated decision-making processes are used in digital public services, and ensure quality standards of data sets fed into AI systems when designing digital public services (e.g. by quality seals for data sets);	KPI 32	Transparency with regards to automated decision making process used in digital public services	Survey
					KPI 33	Use of quality standards of data sets to fed into AI systems when designing digital public services	Survey
			6.2	Share best practices on the development of successful human-centric AI systems in the public sector;	KPI 34	Share best practices on the development of successful human-centric AI systems in the public sector that can be used by all public administrations at European, national and sub-national levels.	Survey
			6.3	Stimulate knowledge sharing between practitioners of administrative innovation strategies and on examples of human centric technologies in public administrations.	KPI 35	Knowledge sharing on public sector innovation strategies	Survey
					KPI 36	Knowledge sharing on human centric technologies	Survey
Towards a resilient and sustainable digital society	7	Foster resilience and sustainability	7.1	Consider how to assess and make transparent the energy sources and consumption of digital tools and infrastructures as well as ways to improve their efficiency.	KPI 39	Actions at national or sub-national level for improving energy efficiency, optimise local consumption of digital tools and infrastructures	Survey
			7.2	Evaluate the environmental impacts of ICT using a multi-criteria lifecycle analysis and establish a strategy to extend the lifespan of digital equipment and promote the eco-design of ICT products to improve circular product cycles	KPI 40	Evaluation of the energy consumption and GHG emissions resulting from ICT activities in the public sector	Survey
					KPI 41	Lifespan of digital equipment used by the public sector	Survey
					KPI 42	Ecodesign of digital public services	Survey
			7.3	Initiate expert consultations to provide guidelines on healthy and appropriate use of digital technologies and work-life balance to prevent adverse impact on mental or physical human health development	KPI 43	Guidelines on healthy and appropriate use of digital technologies;	Survey
			7.4	Foster the exchange of crisis management data, in particular in the health sector, e.g. via the European Health Data Space	KPI 44	Active exchange of crisis management data between Member States	Survey

1. BDM database (results at Policy Area level)

Policy Area	1	2	3	4	5	6	7
Austria	94%	77%	81%	93%	92%	92%	100%
Belgium	75%	61%	81%	80%	86%	79%	74%
Bulgaria	94%	53%	71%	77%	75%	75%	89%
Croatia	42%	73%	79%	87%	94%	58%	89%
Cyprus	55%	54%	76%	100%	75%	55%	56%
Czechia	67%	53%	81%	92%	92%	58%	72%
Denmark	100%	65%	91%	100%	75%	69%	83%
Estonia	92%	58%	83%	100%	78%	94%	78%
Finland	61%	66%	91%	71%	88%	89%	61%
France	67%	54%	82%	98%	92%	67%	86%
Germany	83%	47%	75%	93%	96%	84%	86%
Greece	94%	58%	78%	79%	92%	69%	53%
Hungary	100%	68%	80%	72%	78%	72%	72%
Ireland	100%	83%	93%	64%	92%	78%	58%
Italy	100%	62%	77%	98%	94%	83%	80%
Latvia	83%	56%	80%	93%	81%	65%	44%
Lithuania	No Data	65%	80%	93%	92%	66%	60%
Luxembourg	100%	73%	87%	100%	94%	96%	79%
Malta	78%	93%	85%	79%	75%	78%	79%
The Netherlands	67%	74%	90%	93%	81%	92%	89%
Poland	89%	69%	75%	100%	81%	86%	83%
Portugal	100%	63%	83%	100%	94%	79%	87%
Romania	50%	27%	66%	72%	67%	25%	44%
Slovakia	83%	67%	76%	93%	72%	73%	61%
Slovenia	67%	60%	78%	100%	83%	57%	53%
Spain	100%	74%	88%	100%	97%	87%	80%
Sweden	100%	65%	86%	98%	75%	56%	86%
EU Average	82%	64%	81%	90%	85%	73%	73%

2. BDM database (results at Policy Action level)

Policy Action	1,1	1,2	1,3	2,1	2,2	2,3	3,1	3,2	3,3	4,1	4,2	4,3
Austria	83%	100%	100%	32%	100%	100%	63%	80%	100%	100%	80%	100%
Belgium	50%	75%	100%	11%	80%	91%	55%	89%	100%	100%	40%	100%
Bulgaria	83%	100%	100%	12%	60%	88%	50%	63%	100%	50%	80%	100%
Croatia	33%	50%	No Data	30%	100%	88%	61%	75%	100%	67%	93%	100%
Cyprus	33%	100%	33%	2%	80%	80%	58%	70%	100%	100%	100%	100%
Czechia	33%	100%	67%	10%	80%	70%	63%	80%	100%	83%	93%	100%
Denmark	100%	100%	100%	34%	60%	100%	79%	96%	100%	100%	100%	100%
Estonia	100%	75%	100%	33%	60%	82%	60%	88%	100%	100%	100%	100%
Finland	83%	100%	0%	37%	60%	100%	78%	96%	100%	33%	80%	100%
France	0%	100%	100%	22%	40%	99%	68%	79%	100%	100%	93%	100%
Germany	50%	100%	100%	13%	40%	88%	60%	66%	100%	100%	87%	No Data
Greece	83%	100%	100%	15%	60%	99%	53%	80%	100%	50%	87%	100%
Hungary	100%	100%	100%	8%	100%	96%	64%	77%	100%	17%	100%	100%
Ireland	100%	100%	100%	49%	100%	99%	No Data	86%	100%	0%	93%	100%
Italy	100%	100%	100%	10%	80%	97%	58%	72%	100%	100%	93%	100%
Latvia	100%	100%	50%	21%	60%	88%	54%	86%	100%	100%	80%	100%
Lithuania	No Data	100%	No Data	17%	80%	98%	60%	81%	100%	100%	80%	100%
Luxembourg	100%	100%	100%	39%	80%	99%	69%	93%	100%	100%	100%	100%
Malta	100%	100%	33%	100%	80%	100%	67%	87%	100%	50%	87%	100%
The Netherlands	100%	100%	0%	63%	60%	100%	78%	91%	100%	100%	80%	100%
Poland	66%	100%	100%	30%	80%	98%	49%	77%	100%	100%	100%	100%
Portugal	100%	100%	100%	33%	60%	97%	64%	85%	100%	100%	100%	100%
Romania	0%	100%	50%	17%	40%	25%	46%	51%	100%	17%	100%	100%
Slovakia	100%	100%	50%	19%	100%	81%	54%	73%	100%	100%	80%	100%
Slovenia	33%	100%	67%	21%	60%	98%	57%	78%	100%	100%	100%	100%
Spain	100%	100%	100%	24%	100%	98%	75%	90%	100%	100%	100%	100%
Sweden	No Data	100%	100%	35%	60%	100%	64%	93%	100%	100%	93%	100%
EU Average	73%	96%	78%	27%	73%	91%	62%	81%	100%	80%	90%	100%

2. BDM database (results at Policy Action level)

Policy Action	5,1	5,2	5,3	6,1	6,2	6,3	7,1	7,2	7,3	7,4
Austria	100%	75%	100%	88%	89%	100%	100%	100%	100%	100%
Belgium	100%	92%	67%	No Data	100%	58%	50%	44%	100%	100%
Bulgaria	50%	75%	100%	58%	67%	100%	100%	55%	100%	100%
Croatia	100%	83%	100%	No Data	67%	50%	67%	89%	100%	100%
Cyprus	50%	75%	100%	42%	22%	100%	67%	55%	100%	0%
Czechia	100%	75%	100%	58%	33%	83%	67%	55%	100%	66%
Denmark	50%	75%	100%	63%	44%	100%	67%	66%	100%	100%
Estonia	50%	83%	100%	83%	100%	100%	67%	77%	100%	66%
Finland	100%	75%	No Data	100%	67%	100%	67%	44%	100%	33%
France	100%	75%	100%	100%	0%	100%	100%	77%	100%	66%
Germany	100%	92%	No Data	75%	78%	100%	67%	78%	100%	100%
Greece	100%	75%	100%	58%	67%	83%	67%	77%	0%	66%
Hungary	50%	83%	100%	71%	44%	100%	33%	55%	100%	100%
Ireland	100%	75%	100%	46%	89%	100%	67%	66%	100%	0%
Italy	100%	83%	100%	83%	67%	100%	100%	55%	100%	66%
Latvia	100%	75%	67%	17%	78%	100%	67%	66%	0%	No Data
Lithuania	100%	75%	100%	71%	44%	83%	83%	55%	0%	100%
Luxembourg	100%	83%	100%	88%	100%	100%	100%	50%	100%	66%
Malta	50%	75%	100%	No Data	56%	100%	83%	66%	100%	66%
The Netherlands	100%	75%	67%	75%	100%	100%	100%	55%	100%	100%
Poland	100%	75%	67%	No Data	89%	83%	50%	83%	100%	100%
Portugal	100%	83%	100%	88%	67%	83%	83%	66%	100%	100%
Romania	50%	50%	100%	25%	0%	50%	33%	No Data	100%	0%
Slovakia	50%	67%	100%	71%	67%	83%	67%	44%	100%	33%
Slovenia	100%	83%	67%	83%	22%	67%	50%	77%	50%	33%
Spain	100%	92%	100%	83%	78%	100%	67%	89%	100%	66%
Sweden	50%	75%	100%	46%	22%	100%	67%	77%	100%	100%
EU Average	83%	78%	93%	68%	61%	90%	72%	66%	87%	70%

3. BDM database (results at KPI level)

KPI	KPI 1	KPI 2	KPI 4	KPI 5	KPI 6	KPI 7	KPI 8	KPI 9	KPI 10	KPI 11	KPI 12	KPI 13	KPI 14	KPI 15	KPI 16	KPI 18	KPI 19	KPI 20	KPI 22
Austria	100%	66%	100%	100%	100%	44%	19%	100%	100%	100%	100%	65%	60%	94%	75%	76%	75%	100%	100%
Belgium	0%	100%	100%	50%	100%	15%	7%	80%	99%	No data	83%	59%	51%	92%	100%	82%	80%	100%	100%
Bulgaria	66%	100%	100%	100%	100%	19%	4%	60%	96%	100%	67%	36%	63%	90%	75%	30%	57%	100%	100%
Croatia	33%	33%	100%	0%	No data	33%	26%	100%	98%	100%	67%	59%	63%	89%	75%	75%	61%	100%	100%
Cyprus	33%	33%	100%	100%	33%	4%	1%	80%	89%	50%	100%	49%	67%	79%	75%	66%	61%	100%	100%
Czechia	33%	33%	100%	100%	67%	15%	4%	80%	94%	50%	67%	69%	57%	91%	100%	71%	58%	100%	100%
Denmark	100%	100%	100%	100%	100%	37%	30%	60%	100%	100%	100%	70%	87%	100%	100%	98%	85%	100%	100%
Estonia	100%	100%	50%	100%	100%	59%	7%	60%	97%	50%	100%	63%	56%	96%	75%	89%	92%	100%	100%
Finland	66%	100%	100%	100%	0%	41%	33%	60%	100%	100%	No data	82%	73%	97%	100%	95%	91%	100%	0%
France	0%	0%	100%	100%	100%	11%	33%	40%	97%	100%	100%	60%	75%	93%	75%	85%	63%	100%	100%
Germany	0%	100%	100%	100%	100%	22%	4%	40%	96%	100%	67%	52%	67%	90%	50%	58%	64%	100%	100%
Greece	66%	100%	100%	100%	100%	30%	1%	60%	98%	100%	100%	52%	53%	94%	100%	69%	57%	100%	0%
Hungary	100%	100%	100%	100%	100%	1%	15%	100%	87%	100%	100%	59%	68%	96%	75%	76%	61%	100%	0%
Ireland	100%	100%	100%	100%	100%	56%	41%	100%	98%	100%	100%	No data	71%	87%	100%	No data	70%	100%	0%
Italy	100%	100%	100%	100%	100%	19%	1%	80%	92%	100%	100%	46%	70%	91%	75%	60%	60%	100%	100%
Latvia	100%	100%	100%	100%	50%	19%	22%	60%	97%	100%	67%	45%	62%	93%	100%	73%	79%	100%	100%
Lithuania	No data	No data	100%	100%	No data	30%	4%	80%	95%	100%	100%	53%	67%	92%	75%	72%	84%	100%	100%
Luxembourg	100%	100%	100%	100%	100%	41%	37%	80%	97%	100%	100%	60%	78%	95%	100%	89%	87%	100%	100%
Malta	100%	100%	100%	100%	33%	100%	100%	80%	99%	100%	100%	63%	71%	100%	75%	81%	93%	100%	100%
The Netherlands	100%	100%	100%	100%	0%	67%	59%	60%	100%	No data	100%	83%	72%	95%	No data	95%	84%	100%	100%
Poland	66%	66%	100%	100%	100%	41%	19%	80%	93%	100%	100%	44%	53%	87%	100%	59%	61%	100%	100%
Portugal	100%	100%	100%	100%	100%	33%	33%	60%	92%	100%	100%	56%	71%	98%	100%	70%	72%	100%	100%
Romania	0%	0%	100%	100%	50%	30%	4%	40%	76%	0%	0%	28%	63%	73%	75%	23%	33%	100%	33%
Slovakia	100%	100%	100%	100%	50%	37%	1%	100%	94%	50%	100%	51%	57%	87%	75%	72%	58%	100%	100%
Slovenia	33%	33%	100%	100%	67%	22%	19%	60%	94%	100%	100%	47%	67%	93%	75%	71%	71%	100%	100%
Spain	100%	100%	100%	100%	100%	37%	11%	100%	95%	100%	100%	66%	84%	98%	100%	80%	80%	100%	100%
Sweden	No data	100%	100%	100%	100%	44%	26%	60%	100%	100%	No data	66%	62%	96%	100%	95%	79%	100%	100%
EU Average	68%	79%	98%	94%	78%	34%	21%	73%	95%	88%	89%	57%	66%	92%	86%	73%	71%	100%	83%

3. BDM database (results at KPI level)

KPI	KPI 23	KPI 24	KPI 26	KPI 28	KPI 29	KPI 30	KPI 31	KPI 32	KPI 33	KPI 34	KPI 35	KPI 36	KPI 39	KPI 40	KPI 41	KPI 42	KPI 43	KPI 44
Austria	100%	100%	40%	100%	100%	75%	100%	75%	100%	89%	100%	100%	100%	No data	100%	100%	100%	100%
Belgium	0%	100%	20%	100%	100%	92%	67%	No data	66%	100%	50%	66%	50%	33%	33%	66%	100%	100%
Bulgaria	100%	100%	40%	100%	50%	75%	100%	50%	66%	67%	100%	100%	100%	0%	66%	100%	100%	100%
Croatia	100%	100%	80%	100%	100%	83%	100%	No data	100%	67%	0%	100%	67%	66%	100%	100%	100%	100%
Cyprus	100%	100%	100%	100%	50%	75%	100%	50%	33%	22%	100%	100%	67%	33%	33%	100%	100%	0%
Czechia	100%	100%	80%	100%	100%	75%	100%	50%	66%	33%	100%	66%	67%	66%	33%	66%	100%	66%
Denmark	100%	100%	100%	100%	50%	75%	100%	25%	100%	44%	100%	100%	67%	100%	33%	66%	100%	100%
Estonia	100%	100%	100%	100%	50%	83%	100%	100%	66%	100%	100%	100%	67%	100%	66%	66%	100%	66%
Finland	100%	100%	40%	100%	100%	75%	No data	100%	100%	67%	100%	100%	67%	66%	33%	33%	100%	33%
France	100%	100%	80%	100%	100%	75%	100%	100%	100%	0%	100%	100%	100%	66%	100%	66%	100%	66%
Germany	100%	100%	60%	No data	100%	92%	No data	50%	100%	78%	100%	100%	67%	100%	33%	100%	100%	100%
Greece	100%	100%	60%	100%	100%	75%	100%	50%	66%	67%	100%	66%	67%	100%	66%	66%	0%	66%
Hungary	100%	100%	100%	100%	50%	83%	100%	75%	66%	44%	100%	100%	33%	100%	0%	66%	100%	100%
Ireland	100%	100%	80%	100%	100%	75%	100%	25%	66%	89%	100%	100%	67%	66%	66%	66%	100%	0%
Italy	100%	100%	80%	100%	100%	83%	100%	100%	66%	67%	100%	100%	100%	100%	33%	33%	100%	66%
Latvia	100%	100%	40%	100%	100%	75%	67%	0%	33%	78%	100%	100%	67%	100%	33%	66%	0%	No data
Lithuania	100%	100%	40%	100%	100%	75%	100%	75%	66%	44%	100%	66%	83%	66%	33%	66%	0%	100%
Luxembourg	100%	100%	100%	100%	100%	83%	100%	75%	100%	100%	100%	100%	100%	No data	33%	66%	100%	66%
Malta	100%	100%	60%	100%	50%	75%	100%	No data	66%	56%	100%	100%	83%	66%	66%	66%	100%	66%
The Netherlands	100%	100%	40%	100%	100%	75%	67%	50%	100%	100%	100%	100%	100%	66%	66%	33%	100%	100%
Poland	100%	100%	100%	100%	100%	75%	67%	No data	100%	89%	100%	66%	50%	No data	100%	66%	100%	100%
Portugal	100%	100%	100%	100%	100%	83%	100%	75%	100%	67%	100%	66%	83%	100%	66%	33%	100%	100%
Romania	100%	100%	No data	100%	50%	50%	100%	50%	0%	0%	100%	0%	33%	No data	No data	0%	100%	0%
Slovakia	100%	100%	40%	100%	50%	67%	100%	75%	66%	67%	100%	66%	67%	66%	33%	33%	100%	33%
Slovenia	100%	100%	100%	100%	100%	83%	67%	100%	66%	22%	100%	33%	50%	66%	100%	66%	50%	33%
Spain	100%	100%	100%	100%	100%	92%	100%	100%	66%	78%	100%	100%	67%	100%	100%	66%	100%	66%
Sweden	100%	100%	80%	100%	50%	75%	100%	25%	66%	22%	100%	100%	67%	66%	100%	66%	100%	100%
EU Average	96%	100%	72%	100%	83%	78%	93%	64%	74%	61%	94%	85%	72%	74%	59%	64%	87%	70%

Appendix III – BDM Policy Areas & Policy Actions

The below figure aims to present the architecture of the BDM. As a reminder, the BDM assesses the level of implementation of 22 Policy Actions which are clustered into 7 Policy Areas, in line with the 7 principles set out by the Declaration. Hence, the architecture of the BDM is based on three granularity levels: the 7 Policy Areas (level 1) aggregating the 22 Policy Actions (level 2) assessed through a set of primary and/or secondary Key Performance Indicators (KPIs) (level 3).

BDM Theoretical Framework

Level 1 Policy Areas	Level 2 Policy Actions	Level 3 KPIs
Policy Area 1 Promote fundamental rights and democratic values in the digital sphere	**1.1 |** Include and translate fundamental rights into policies and technology procurement rules	1-2
	1.2 | Raise awareness on value-based digital transformation	3-5
	1.3 | Establish ethical and technological expert councils	6
Policy Area 2 Enhance social participation and inclusion	**2.1** | Encourage the use of digital tools to foster citizen participation in policy decision making	7-8
	2.2 | Ensure inclusiveness and accessibility for all to fully digital public services and information	9
	2.3 | Provide easy access to services from mobiles	10-12
Policy Area 3 Foster digital empowerment and digital literacy	**3.1** | Launch and promote initiatives for citizens' digital literacy	13-14
	3.2 | Provide easily accessible, user-friendly and seamless digital services	15-18
	3.3 | Initiate workshops/trainings to promote digital skills in the public sector	19
Policy Area 4 Strengthen trust through security in the digital sphere	**4.1** | Promote the rollout and use of notified eID in the public and private sectors	20-22
	4.2 | Promote responsible and legally compliant re-use of data	23-27
	4.3 | Consider ways to foster agreement on ICT security requirements	28
Policy Area 5 Strengthen Europe's digital sovereignty and interoperability	**5.1** | Jointly work towards agreements on requirements for technology providers	29
	5.2 | Implement common standards and modular architectures in cross border digital solutions	30
	5.3 | Work with the EC to provide suitable online public services for EU cross-border use	31
Policy Area 6 Create value-based, human-centered AI systems for use in the public sector	**6.1** | Foster transparency and accountability when designing digital public services	32-33
	6.2 | Share best practices on the development of human-centric AI systems	34
	6.3 | Stimulate knowledge sharing on human centric technologies	35-36
Policy Area 7 Foster resilience and sustainability	**7.1** | Assess and make transparent energy consumption of digital tools and infrastructures	37-39
	7.2 | Evaluate the environmental impacts of ICT and extend the lifespan of digital equipment	40-42
	7.3 | Initiate expert consultations on appropriate use of digital technologies	43
	7.4 | Foster the exchange of crisis management data	44