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State of the Digital Decade 2025: Keep building the EU's sovereignty and digital future

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European Commission

DIGITAL DECADE 2025
COUNTRY REPORTS

Slovenia

Slovenia

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Executive summary

Slovenia can rely on a well-developed digital infrastructure but lags behind in digital skills. The country is very active in several cutting-edge technology projects, particularly in quantum, semiconductors, cloud and Artificial Intelligence (AI). Slovenia shows a high level of ambition in its contribution to the Digital Decade having set 13 national targets, 100% of which are aligned with the EU 2030 targets.[1] The country is following its trajectories moderately well with 63% of them being on track (considering 2024 trajectories defined for 8 KPIs out of 8 analysed). Slovenia addressed 82% of the 11 recommendations issued by the Commission in 2024 by making some changes through new measures.

In 2024, 5G coverage increased considerably, including in rural areas. However, the country lags behind in basic digital skills and ICT specialists, which may also be one of the factors limiting the uptake of advanced technologies in SMEs. An exception is AI adoption by enterprises, which has recently shown considerable progress. Often in collaboration with other EU Member States, the country takes an active role in several pioneering technology projects, including those focused on quantum computing, semiconductors, cloud computing and AI.

Digital Decade KPI (1)	Slovenia				EU		Digital Decade target by 2030	
	DESI 2024 (year 2023)	DESI 2025 (year 2024)	Annual progress	National trajectory 2024 (4)	DESI 2025	Annual progress	SI	EU
Fixed Very High Capacity Network (VHCN) coverage	78.5%	79.6%	1.5%	80.0%	82.5%	4.9%	100.0%	100%
Fibre to the Premises (FTTP) coverage	78.5%	79.6%	1.5%	82.0%	69.2%	8.4%	100.0%	-
Overall 5G coverage	82.1%	96.7%	17.8%	74.0%	94.3%	5.9%	100.0%	100%
Edge Nodes (estimate) (2)	8	16	100.0%	-	2257	90.5%	-	10000
SMEs with at least a basic level of digital intensity (3)	-	67.6%	0.4%	-	72.9%	2.8%	90.0%	90%
Cloud	36.0%	-	-	-	-	-	75.0%	75%
Artificial Intelligence	11.4%	20.9%	83.7%	33.0%	13.5%	67.2%	75.0%	75%
Data analytics	19.1%	-	-	-	-	-	75.0%	75%
AI or Cloud or Data analytics	44.7%	-	-	-	-	-	-	75%
Unicorns	0	0		-	286	4.4%	7	500
At least basic digital skills	46.7%	-	-	-	-	-	80.0%	80%
ICT specialists	3.8%	4.3%	13.2%	6.0%	5.0%	4.2%	10.0%	~10%
eID scheme notification		Yes						
Digital public services for citizens	77.0	78.6	2.0%	76.0	82.3	3.6%	100.0	100
Digital public services for businesses	84.0	85.0	1.2%	90.0	86.2	0.9%	100.0	100
Access to e-Health records	87.6	87.5	-0.1%	83.0	82.7	4.5%	100.0	100

(1) See the methodological note for the description of the indicators and other metrics
(2) Slovenia aims to contribute to this target through the deployment of edge nodes by 200 companies.
(3) DESI 2025 reports the version 4 of the Digital Intensity Index, that is comparable with the DII value from DESI 2023 (referring to year 2022) for the calculation of the annual progress. It is not comparable to the national trajectory that is based on version 3 of the index.
(4) National trajectory value if present in the national roadmap and if the indicator was measured in DESI2025 (year 2024)

[1] While the KPI on edge nodes measures the number of edge nodes deployed, Slovenia intends to contribute to the target of 10 000 edge nodes with 200 companies deploying edge nodes.

According to the special Eurobarometer on 'the Digital Decade' 2025, 78% of Slovenian citizens consider that the digitalisation of daily public and private services is making their lives easier. Concerning the action of the public authorities, 90% consider it important to counter and mitigate the issue of fake news and disinformation online, and regarding competitiveness, 82% consider it important to ensure that European companies can grow and become "European Champions" able to compete globally.

A competitive, sovereign, and resilient EU based on technological leadership

The fibre to the premises coverage is relatively high in Slovenia and very high capacity network coverage is gradually increasing, although some rural gaps remain. The country is taking action to reduce these gaps. 5G coverage increased significantly, including in rural areas, and fibre-to-the-premises coverage remains strong. The country is actively advancing strategic technologies such as quantum computing, semiconductors, cloud computing and AI. To strengthen its ecosystem and capacities, it is establishing Competence Centres for semiconductors and AI, and will host an AI Factory featuring a supercomputer. With the exception of the businesses' uptake of AI, where Slovenia has made significant progress recently, the uptake of more accessible digital technologies that could enhance competitiveness on a larger scale for SMEs is relatively low. This limitation may partly stem from a shortage of sufficiently skilled employees. For the start-up sector, initial steps are being taken to enhance framework conditions, such as through legislative changes. However, several initiatives are still under development, and venture capital expenditure and funding via capital markets remain relatively low. Slovenia is developing cyber awareness and capabilities across multiple areas, including securing infrastructure and providing trainings in the public sector, safeguarding healthcare systems and launching pilot training programmes within the education system.

Protecting and empowering EU people and society

Slovenia lags behind in digital skills. Its population has a relatively low level of basic digital skills. Despite ongoing efforts to improve basic digital skills across various demographic groups, it remains to be seen whether these initiatives will effectively bridge the significant gaps. The current education reform presents an opportunity to integrate digital skills into the curriculum, which will be crucial in addressing this issue. Although Slovenia has made good progress in increasing its proportion of ICT specialists within the workforce, it still lags behind the EU average. The relatively low share of ICT specialists may be one of the factors limiting businesses' adoption of advanced digital technologies. While training programmes for acquiring advanced digital skills in specific technologies are available, they appear to be insufficient to meet the demand for ICT specialists. Additionally, despite Slovenia's efforts in anticipating future job market trends and the demand for ICT specialists, addressing these dynamic needs remains challenging. In this regard, integrating digital skills into the ongoing higher education reform will be crucial. The availability of digital public services in Slovenia is a bit less widespread than in the EU, especially when it comes to cross-border services. However, their uptake is higher than the EU average. Slovenia plans to enhance the digital transformation of public authorities, in particular on data access and on municipality level. Furthermore, the country is preparing the Digital Healthcare Act, a major project that aims to drive digital transformation in the healthcare sector.

Leveraging digital transformation for a smart greening

Slovenia is taking steps to support the green transition through digital technologies, building on its existing measures and introducing new ones as part of its adjusted roadmap. Initiatives range from modernising green public procurement and creating digital twins to establishing circular and digital business models. However, current efforts still appear to be fragmented and there does not yet seem to be a systematic approach to fully leverage their potential together.

National Digital Decade strategic roadmap

Following a public consultation, Slovenia submitted a fully revised national Digital Decade roadmap on 31 January 2025[2]. This document will also serve as the Action Plan for the Digital Slovenia 2030 strategy, which was adopted in 2023. The roadmap contains some new or changed measures compared to the initial roadmap submission in 2023 and maintains its ambitious national target values. However, several measures have been removed from the adjusted roadmap, especially those linked to Digital Decade objectives and all measures linked to start-ups. The revised roadmap addresses a limited number of the roadmap recommendations issued in 2024. All national target values were kept in line with the EU's 2030 ambition level and the additional target on e-ID uptake, the quantitative estimates on how Slovenia will contribute to the semiconductor and the edge nodes targets were maintained. The update is composed of 81 measures with a budget of EUR 685 million, which represents 1.02% of Slovenia's GDP. While it brings some new impulses in line with the new Commission's priorities in areas like green ICT, AI and semiconductors, the update does not sufficiently address the country's challenges and is not fully aligned with its very ambitious national targets, especially in the areas of basic and advanced digital skills and digitalisation of businesses.

Funding & projects for digital

Slovenia allocates 20% of its total recovery and resilience plan to digital (EUR 513 million)[3]. In addition, under cohesion policy, EUR 287 million, representing 9% of the country's total cohesion policy funding, is dedicated to advancing Slovenia's digital transformation[4].

Slovenia is a member of the three established EDICs; the Alliance for Language Technologies EDIC, the Local Digital Twins towards the CitiVERSE EDIC and of the EUROPEUM EDIC on blockchain. Slovenian entities are indirect and/or associated partners in the IPCEI on Microelectronics and Communication Technologies (IPCEI-ME/CT) and in the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS).[5] Slovenia is also a participating state in the EuroHPC Joint Undertaking (JU) and in the Chips JU.

[2] Government approval pending due to some changes linked to the Digital Slovenia 2030 Action Plan. For the purpose of the Digital Decade Policy Programme, the content of the roadmap submitted on 31 January 2025 can be considered final. Corrigendum to Digital Decade Country Report Slovenia 2024: The initial national roadmap was adopted by the Slovenian Government in December 2023, before its publication and submission to the European Commission.

[3] The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation. Last data update: 16 May 2025.

[4] This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 Cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

[5] Corrigendum to Digital Decade Country Report Slovenia 2024: Slovenian entities are indirect partners in the Important Project of Common European Interest on Next Generation Cloud Infrastructure and Services (IPCEI-CIS).

Slovenia leads the Digital Skills cluster of the Best Practice Accelerator[6]. In this context, it led the organisation of five workshops and shared four Slovenian best practices on digi info points, an adult digital literacy program, mobile heroes (for older people) and digital training for children and young people).

Digital Rights and Principles

According to a support study, Slovenia has shown rather limited activity in implementing the **European Declaration on Digital Rights and Principles**, with 38 initiatives overall and 3 new initiatives launched in 2024. Slovenia is most active in the area of Solidarity and inclusion. Less activity has been identified with regards to privacy and individual control over data. Measures in the area of putting people at the centre of the digital transformation appear to have most impact on the ground, in contrast to those addressing participation in the digital public space.

Recommendations

- **ICT specialists:** Improve the early identification of labour market needs and address them accordingly through training offers and with the help of the higher education reform.
- **Basic digital skills:** Increase and intensify education and training offers and integrate digital skills into the education curricula from an early age.
- **SME take up:** Provide continuous support to SMEs and create enabling framework conditions for their uptake of digital technologies.
- **Advanced technologies:** Quickly implement measures to increase the uptake of advanced technologies by businesses, with a focus on SMEs.
- **Cybersecurity:** Sustain and enhance activities to increase cybersecurity in the sectors of public services and education and introduce these with activities to support businesses.
- **Unicorns/startups**: Quickly implement measures to improve framework conditions and access to funding for start-ups.
- **Green:** Enhance digital technologies to support the green transition, in particular by addressing the interaction between green and digital initiatives in a more systematic manner.

[6] The Best Practice Accelerator (BPA) is a platform that enables Member States to share successful measures and challenges encountered in their efforts to meet their Digital Decade targets and objectives. Best practices are made available to Member States via the BPA Repository and showcased in regular workshops, currently focused on three thematic clusters: Digital Skills, Green IT, and the Uptake of Digital Technologies.

A competitive, sovereign and resilient EU based on technological leadership

Slovenia lags behind the EU in innovation performance, particularly in areas such as business' investment in innovation[7]. Surveys suggest that this is related to the lack of skilled labour[8]. Furthermore, companies invest a high share of their capital in machinery (54% compared to 48% in the EU) and relatively less in areas like employee training, ICT and R&D[9]. The ICT sector in Slovenia is among the smallest in the EU (accounting for 4.3% of GDP, compared with an EU average of 5.5%).[10] Moreover, expenditure on R&D and the share of R&D personnel in the ICT sector are the lowest in the EU (9.3% of total R&D expenditure and 15.1% of total R&D personnel).

While the country is very active in several cutting-edge technology projects, the adoption of digital technologies by SMEs remains limited. Slovenia is contributing to the development of advanced technologies in several projects (e.g. on quantum, semiconductors, cloud and AI), often in collaboration with other EU Member States. Slovenia has included two projects in its adjusted roadmap that are intended to enhance cooperation and knowledge transfer between businesses, research organisations and other stakeholders ('Establishment of RDI junction' and 'Support for strategic development innovation partnerships'). Such initiatives are important, considering that the broader adoption of more accessible digital technologies, which could enhance competitiveness on a larger scale for SMEs, is comparatively limited. This limitation may partly stem from a shortage of sufficiently skilled employees. An exception is the AI adoption by enterprises, which has recently shown considerable progress. For the start-up sector, initial steps are about to be taken to improve framework conditions (e.g. legislative changes), but several initiatives are still in development, and venture capital expenditure and funding from capital markets remain low. According to the 2025 Eurobarometer[11], 86% of Slovenians think that building efficient and secure digital infrastructures and data processing facilities should be a priority for the public authorities.

Slovenia's digital infrastructure is well-developed, although some gaps in rural connectivity still remain. Recent improvements have led to a significant increase in 5G coverage, including in rural areas.

Building technological leadership: digital infrastructure and technologies

Connectivity infrastructure

Slovenia's Very High Capacity Network (VHCN) coverage stood at 79.65% in 2024 (2030 national target 100%) after an increase of 1.5% and remained below the EU average of 82.49% (growth rate of 4.9%). The country is on track according to its national trajectory. For households in sparsely populated areas, Slovenia's VHCN coverage was 58.58%, below the EU's 61.89%. The coverage growth rate of 3.1% for these households was significantly lower than the EU's 11.3%. For broadband take-up, Slovenia's share of fixed broadband subscriptions at 1 Gbps or higher was 10.89% in 2024, below the EU''s 22.25%. The growth rate for this indicator in Slovenia was 14.9%, lower than the EU''s 20.5%.

[7] See European Innovation Scoreboard 2024, European innovation scoreboard - European Commission.
[8] See European Investment Bank Investment Survey 2023, EIB Investment Survey 2023: European Union overview.
[9] See European Investment Bank Investment Survey 2023, EIB Investment Survey 2023: European Union overview.
[10] Most of the indicators mentioned in the country report are explained in the DESI 2025 Methodological Note accompanying the State of the Digital Decade report 2025.
[11] Special Eurobarometer 566 on 'the Digital Decade' 2025: https://digital-strategy.ec.europa.eu/en/news-redirect/883227

Slovenia was at 79.65% Fibre to the Premises (FTTP) coverage (2030 national target 100%) following an increase of 1.5% in 2024 and stood above the EU average of 69.24% (growth rate of 8.4%)[12]. The country is on track according to its national trajectory. For households in sparsely populated areas, Slovenia's FTTP coverage was 58.58% in 2024 in line with the EU average of 58.78%. The growth rate of 3.1% was lower than the EU''s 11.9%.

Slovenia's 5G coverage reached 96.72% after a significantly faster increase than the EU in 2024 (17.8% vs 6.0%) and stood above the EU''s 94.35%. The country is on track according to its national trajectory. For households in sparsely populated areas, Slovenia's 5G coverage was at 87.65% in 2024, exceeding the EU's 79.57%. The growth rate of 92.4% was substantially higher than the EU's 11.9%, which also reflects Slovenia's low starting point. Slovenia's 5G coverage in the 3.4 -3.8 GHz band was at 92.85%, compared to the EU's 67.72%. The growth rate of 36.3% was again higher than the EU's 32.6%. For households in sparsely populated areas, Slovenia's 5G coverage in the 3.4 -3.8 GHz band was 75.77% after a considerable increase of 239.2%, significantly higher than the EU's coverage of 26.19%. Furthermore, Slovenia has fully assigned 100.0% of its 5G pioneer bands spectrum, outperforming the EU's 74.63%. Yet, the 5G uptake remains low compared to the high 5G coverage throughout the country. The number of 5G SIM cards expressed as the share of the population was 30.97%, below the EU average of 35.56%.

VHCN and FTTP

Slovenia's VHCN and FTTP targets remain at 100% in its adjusted roadmap. However, this may be a challenge in rural areas, where low connectivity has been a persistent issue, related to the country's topography. Almost all gigabit connectivity measures in the initial Slovenian roadmap were already focused on this challenge. But in the roadmap adjustment, some initiatives have been reduced in budget and no new initiatives have been introduced.

A key initiative for enhancing connectivity in rural areas was the launch of a public tender in summer 2024 to co-finance the construction or upgrade of high-capacity fixed broadband networks. This tender is part of an investment under the Slovenian Recovery and Resilience Plan (RRP) and will be completed by a second public tender, scheduled to be launched before this summer. Together, the tenders are expected to bring gigabit connectivity to more than 6800 additional households in white areas (i.e. areas with limited or no high-speed internet access). Given that connecting the remaining rural households will become increasingly more expensive, AKOS, the national regulatory authority for telecommunications, is collaborating with the Ministry of Digital Transformation to develop a tool for assessing the costs of building gigabit infrastructure in Slovenia. The aim is to propose various connection scenarios and identifying the most cost-effective solution by locating the closest manhole, which serves as an access point for digital infrastructure, thereby minimising the distance to be covered to set up additional connections. Additionally, again in the context of its RRP, Slovenia has taken steps to improve connectivity in the education sector, specifically providing high-speed internet access to educational institutions and ensuring that public research institutes are connected to each other with very high-speed connectivity.

Moreover, AKOS is laying the groundwork to future-proof Slovenia's connectivity networks. For example, AKOS has begun preparations for the country's copper switch off. A proposal for a 'Strategy of regulatory measures to accelerate the copper switch off' is currently under public consultation. Additionally, following the floods in 2023, AKOS has launched a project to build a resilient network that

[12] The VHCN coverage is defined as the combination of FTTP and DOCSIS 3.1 coverage. As Slovenia has not upgraded its DOCSIS 3.0 infrastructure to DOCSIS 3.1, the VHCN coverage equals the FTTP coverage.

will cover approximately 95% of Slovenian households, ensuring the availability of at least voice calls and critical communications in the event of a major outages caused by floods or other natural hazards.

5G

Slovenia's 5G target remains at 100% in its adjusted roadmap. Given the significant recent progress and the measures outlined in the adjusted roadmap**,** this target is within reach. In addition to the measures already included, such as spectrum management and co-financing open base stations (i.e. open passive 5G mobile networks), Slovenia has added a new initiative, which will co-finance open base stations in flood-affected areas, with EUR 4.2 million allocated from the national reconstruction fund. The first tender has been launched, and a second one will follow soon. These efforts are expected to further boost Slovenia's already high level of 5G coverage.

With the 5G pioneer bands spectrum fully assigned, Slovenia is now preparing for future technological advancements as part of its radio spectrum development strategy 2024-2026. This strategy will also support businesses in maximising the benefits of 5G. According to AKOS, companies, municipalities and the operator who acquired spectrum for private 5G networks, have begun using their allocated spectrum, focusing on industrial automation, IoT applications and public safety projects. A separate auction for 700 MHz bands, intended for machine-to-machine communication networks, failed to attract any bids and was subsequently cancelled. As part of the radio spectrum development strategy, AKOS will also be harmonising the methodology for implementing 5G standalone networks in 2025.

2024 recommendation on connectivity infrastructure: (i) Continue and supplement measures to tackle 5G connectivity challenges, especially in rural areas. (ii) Ensure sufficient access of new players to spectrum for innovative business-to-business (B2B) and business-to-consumer (B2C) applications and encourage operators to speed up the deployment of 5G standalone core networks.

(i) **Slovenia made some efforts to address the recommendation through new policy actions in 2024.** 5G coverage, including in rural areas, increased significantly (by 14.6 percentage points (pp) overall and 42.1 pp in rural areas). Besides continuing the implementation of existing measures to prepare for future advancements of the 5G technology, a new measure was introduced in the adjusted roadmap. This measure will co-finance open passive 5G mobile networks in flood-affected areas, further enhancing Slovenia's 5G coverage.

(ii) **Slovenia made some efforts to address the recommendation through new policy actions in 2024.** Slovenia auctioned spectrum for private 5G networks, reporting that the successful bidders begin to use their allocated spectrum. Additionally, an auction for spectrum on machine-to-machine communication was initiated (but did not attract any bids).

Semiconductors

In its adjusted roadmap, Slovenia maintains its commitment to contribute to the semiconductor target, projecting that 10 R&D companies with a focus on semiconductors and 25 manufacturing companies will be involved. The country currently reports having two R&D enterprises and eight active manufacturing companies in the semiconductor sector (as well identical to its initial roadmap).

Slovenia continues to take action to develop its semiconductor ecosystem. The adjusted roadmap maintains key initiatives (see below) and has added a new initiative on providing a supportive environment for semiconductors**.** This new measure aims to create a supportive framework for R&D&I efforts and chips prototyping. Under the Slovenian RRP, two Slovenian companies continue to be

involved as indirect or associated partners in the IPCEI on Microelectronics and Communication Technologies. The country also reported that it has started to collaborate with direct partners of this IPCEI.

After a considerable preparatory phase, a draft of the Semiconductor Strategy was published in July 2024 and publicly consulted afterwards. The draft strategy includes three major actions: the establishment of the Chips.si Competence Centre and the Centre of Excellence for Chips and Semiconductor Technologies as well as activities for strengthening the existing capacities in the semiconductor ecosystem. The Chips.si Competence Centre has been operational since April 2025 and is expected to begin providing access to technical expertise and experimentation to support companies, especially SMEs, in developing relevant design capabilities and skills. Chips.si is among the centres selected by the EU Commission to collaborate in a European network of semiconductor competence centres, aiming to strengthen the European semiconductor industry and to address the needs of local ecosystems in the broader context of the European Chips Act. Furthermore, Slovenia is reinforcing its innovation environment with strategic research and development in electronic components and systems.

2024 recommendation on semiconductors: Sustain activities on semiconductors and quickly implement them on the ground.
Slovenia made some efforts to address the recommendation through new policy actions in 2024. Slovenia continues to take action to develop its semiconductor ecosystem and some acceleration can be perceived. Moreover, the roadmap adjustment introduces new impulses.

Edge nodes

According to the Edge Node Observatory, Slovenia is estimated to have deployed a total of 16 edge nodes by 2024, an increase of 100% since 2023. In its adjusted roadmap, Slovenia maintains its ambition to contribute to this target through the deployment of edge nodes by 200 companies. The country reports having approximately 20 companies, in particular telecommunication companies, working on the deployment of edge nodes (identical to its initial roadmap).

Slovenia's main activity in this area remains that Slovenian entities are indirect partners in the IPCEI on Next Generation Cloud Infrastructure and Services. The multi-country project will support the development of software and data processing capabilities for the exploitation of edge nodes. One of the recently launched projects which is part of this initiative involves the development of decentralised, edge-based data storage (see cloud section for more details).

Quantum technologies

Slovenia continues to engage in EU-level initiatives and to develop a national framework for quantum technologies, although most of these activities are not reflected in its adjusted roadmap. Given the early stage of development for quantum technologies, Slovenia's efforts are currently focused on basic technology research and exploring proof of concept schemes to assess technical feasibility in the near future.

The successful bid for the AI Factory, including a new supercomputer, underpinned Slovenia's well-developed infrastructure and expertise in this field (see AI section for more details). The project exemplifies Slovenia's contribution to several EU initiatives. Additionally, after an extensive preparatory phase, the national quantum strategy is expected to be published by September 2025. The strategy was developed through a participatory process involving stakeholders at various stages.

The strategy will focus on research and innovation, talent development, quantum infrastructure and industrialisation. According to the Government Information Security Office, the country is in the process of connecting several government bodies across six locations through a quantum key distribution network as part of the Slovenian Quantum Communication Infrastructure Demonstration (SiQUID) project which is part of the Slovenian RRP.

Supporting EU-wide digital ecosystems and scaling up innovative enterprises

SMEs with at least basic digital intensity

In Slovenia 67.63% of SMEs had at least a basic level of digital intensity in 2024 (2030 national target 90%), after a limited growth of 0.4% compared to 2022[13] and the country stands below the EU average (72.91% and growth rate of 2.8%). Nonetheless, among all SMEs, 31.78% achieved high or very high digital intensity, close to the EU average of 32.66%. The data on the adoption of AI/cloud/data analytics by enterprises across all sizes also indicate relatively low take-up among SMEs (see more details in dedicated section). While Slovenian SMEs lag in these areas, its large enterprises outperform the EU average, with the exception of AI.

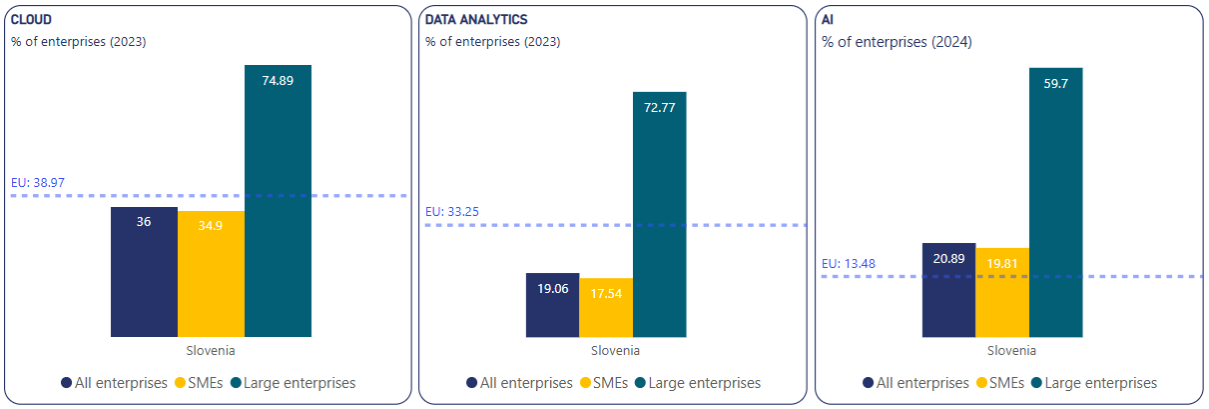
Slovenia still aims to reach the 90% target for SMEs with basic digital intensity in its adjusted roadmap. However, given the current adoption levels and growth trends in Slovenia, additional measures may be needed to meet these targets. No new measures have been added and a few measures targeted specifically to SMEs have been removed from the adjusted roadmap, though they are still being implemented. For example, after a pause, the Slovene Enterprise voucher system to support SMEs in digitalising products or services will be relaunched with a focus on cybersecurity and some other specific topics, including AI. Slovenia reported that for some topics, the relaunch is already ongoing. Furthermore, Slovenia continues to support the uptake of digital technologies in SMEs with two European Digital Innovation Hubs, the Digital Emergency Response for Slovenia (EDIH DIGI-SI) and the Smart, Resilient and Sustainable Communities - European Digital Innovation Hub (SRC EDIH) as well as projects to support SMEs' investments in (in)tangible assets ('incentives for digital transformation') and in the twin transition ('circular and digital business models'). However, following the implementation of the RRP measure 'Industrial/business digital transformation programme' (see details in take-up of cloud/AI/data analytics section), it seems important for Slovenia to transfer and maximise the impacts of this measure, as there are currently no plans for new comparable projects in terms of size and scope.

2024 recommendation on digitalisation of SMEs: Accelerate policies to increase the uptake of digital technologies by SMEs. In particular by quickly implementing, maintaining and complementing the efforts to provide supportive framework conditions, including a highly skilled workforce, in a continuous manner and by paying particular attention to the specificities of industries.
In 2024, Slovenia continued the implementation of existing measures but did not take any new measure. Apart from moving forward with the RRP consortia project on digital transformation for SMEs and large companies, which is a key measure in this area, Slovenia did not report any significant progress on other measures and no substantial new measures have been reported.

[13] 2022 is the last comparable year that used a similar methodology for measuring the digital intensity of enterprises.

Slovenia

Take-up of cloud/AI/data analytics



In 2024, 20.89% enterprises in Slovenia adopted AI (2030 national target is 75%), following an increase of 83.73%, considerably outpacing the EU average of 13.48%. However, the country is lagging behind compared to its national trajectory. Among SMEs, the uptake rate was 19.81%, while large enterprises showed a significantly higher rate of 59.7%. This corresponds to a gap of 39.89 percentage points between SMEs and large enterprises, which considerably exceeds the EU gap of 28.53 percentage points.

In 2023, cloud uptake in Slovenia reached 36% (2030 national target is 75%), slightly below the EU-level uptake of 38.97%. However, SMEs exhibited a 34.9% uptake, while large enterprises adopted cloud services at a much higher rate of 74.89%. This resulted in a gap of 39.99 percentage points in uptake between SMEs and large enterprises in Slovenia, which was higher than the EU-level gap of 31.68.

Similarly in 2023, 19.06% of enterprises utilised data analytics in Slovenia (2030 national target is 75%), falling short of the EU average of 33.25%. However, SMEs had a lower uptake at 17.54%, while 72.77% of large enterprises engaged in these activities. This led to a notable gap of 55.23 percentage points between SMEs and large enterprises, which exceeded the EU gap of 39.72 percentage points**.**

When taking the three technologies together, 44.71% of enterprises in Slovenia engaged with either AI, cloud or data analytics, which was considerably below the EU average (54.7%) in 2023. The uptake among SMEs was slightly lower at 43.41%, while large enterprises had a higher engagement rate of 91.06%. This indicates a percentage point difference of 47.65 in uptake between SMEs and large enterprises in Slovenia, which was again higher than the EU-level gap of 32.97.

In its adjusted roadmap, Slovenia still targets a 75% adoption rate for each of the three technologies in enterprises by 2030. Meanwhile, the EU target is for at least one of the three technologies to be used by 75% of enterprises. However, given the current adoption levels and growth trends in Slovenia, additional measures may be needed to meet these targets. While the adjusted roadmap maintained a few measures to promote the broader uptake of advanced technologies, which can also contribute to increase the basic digital intensity of SMEs, Slovenia remains particularly focused on the development and uptake of AI.

In February 2025, Slovenia reported the implementation of the 'Industrial/business digital transformation programme', a key measure for promoting digital innovation and advanced technologies in businesses. This RRP measure, also part of the adjusted roadmap, supported 23 consortia, comprising 42 large companies and 84 SMEs. Funded projects focused on areas previously identified as relevant to the digital transformation, e.g., to introduce AI to decision-making and

planning processes**.** This initiative is expected to have contributed to bridging the gap between SMEs and large enterprises in the uptake of advanced technologies, while also positively impacting the value chains of the participating companies.

- **Cloud**

The key action to increase the uptake of cloud computing services remains that Slovenian entities are indirect partners in the IPCEI on Next Generation Cloud Infrastructure and Services[14]. In the context of this RRP-funded project Slovenia launched 'SIChain EIPS'. This project focuses on developing blockchain infrastructure and decentralised, edge-based data storage, with the goal of integrating it into a common European data and services infrastructure. The project aims to enhance the interoperability and security of European data and services infrastructure, potentially boosting cloud service adoption by businesses, while also contributing to the development of integrated infrastructure that links cloud computing with other advanced technologies. Slovenia reported that Slovenian companies collaborate with direct partners of this IPCEI, in particular in the field of digital infrastructures and platforms, including through use cases focused on establishing different types of cloud infrastructure and services networks.

- **Data Analytics**

There is not specific update to report beyond what is already included in other sections.

- **Artificial Intelligence**

AI continues to be a central priority for Slovenia in advanced technologies. With the successful bid to host an 'AI Factory' and the launch of the 'Machine Learning for Science and Humanities – SMASH' project, the country is poised to contribute to the further development of AI. The AI Factory will primarily provide AI tools and computing power to support businesses and the public sector. More concretely, building on the achievements of the Vega supercomputer, a new supercomputing infrastructure is expected to boost research and industrial use of advanced technologies like AI (e.g. for climate change prediction) and accelerated process simulation in areas like manufacturing. The project SMASH aims to enhance the use of machine learning in research, fostering the development of new scientific methods and strengthening research infrastructure.

Moreover, the implementation of other measures is gaining momentum. After a considerable preparatory and scoping phase starting in 2023, the first call for tender for the AI Competence Centre with a budget of EUR 3.6 million will be published in 2025. The Competence Centre's activities will cover a broad range of areas, including supporting AI skills, facilitating AI adoption by businesses, and creating an AI ecosystem and international cooperation. In alignment with the Digital Decade target, the Centre will focus on helping businesses embrace and develop AI through training, consultancy services and practical information on the use of AI tools. Stakeholders appear to agree on scope and aim of the Centre. Additional calls for tenders will follow in subsequent years.

The 2025 Eurobarometer shows that 80% of Slovenians think that public authorities should prioritise shaping the development of Artificial Intelligence and other digital technologies to ensure that they respect our rights and values.

The adjusted roadmap introduces a new initiative focused on 'Support for low-value AI applied projects', while removing a previously planned measures on support for vocational training

[14] Corrigendum to Digital Decade Country Report Slovenia 2024: Slovenian entities are indirect partners in the Important Project of Common European Interest on Next Generation Cloud Infrastructure and Services (IPCEI-CIS).

programmes. Trainings for employees will instead be delivered through the AI Competence Centre. With EUR 6.4 million, Slovenia aims to assist around 70 companies in developing AI-based solutions, from initial testing to full commercial deployment. This initiative is expected to expand the availability of AI solutions and increase AI capabilities within funded companies, thereby indirectly boosting AI adoption across the broader business landscape.

2024 recommendations on advanced technologies: Accelerate policies to increase and speed up the uptake of advanced technologies. In particular by stepping up actions on data analytics, and by speeding up and further targeting preparation and implementation of measures on AI.
Slovenia made some efforts to address the recommendation through new policy actions in 2024. Slovenia is implementing projects to increase the adoption of advanced technologies, with a strong emphasis on AI and new activities are planned, including in the adjusted roadmap.

Unicorns, scale-ups and start-ups

Slovenia is one of the six EU Member States without a unicorn company[15] and there is also no potential future unicorn in the country[16]. In its adjusted roadmap, Slovenia maintains its very ambitious goal of seven unicorns by 2030. Given the current situation in Slovenia, additional measures may be needed to meet this target.

Slovenia continues to take action to improve access to funding and framework conditions for start-ups, although these initiatives are no longer part of its adjusted roadmap. A key development is the start-up strategy currently under preparation. The draft strategy from May 2024 outlines several objectives closely linked to the Digital Decade target. To support the achievement of these objectives, the strategy proposes actions in five key areas: strengthening the supportive environment for start-ups, attracting global talent, developing the venture capital market, introducing employee stock option remuneration and creating a new legal business entity to simplify company creation and management. At the Slovenian Start-up event in January 2025, stakeholders emphasized the need for the swift finalisation and implementation of the strategy, alongside strong support and collaboration across ministries.

In terms of framework conditions, the Foreigners' Act and the Employment, Self-employment and Work of Foreigners Act have been amended to streamline the procedures for employing foreign workers. Closely aligned with the draft start-up strategy, additional legislative changes are being developed, including introducing new legal entities and of employee stock option remuneration. These changes are expected to be implemented later in 2025.

On access to funding, venture capital expenditure remains low and Slovenian businesses rely less on funding from capital markets than the EU. Venture capital amounts to only 0.005% of GDP in Slovenia, which is the second lowest in the EU. Shares and bonds only represented 7.4% of Slovenian non-financial corporations fundings sources (compared 23.8% in the EU). In this context, one key initiative is the Slovene Early Stage Innovation Fund, which will fund around 70 projects of innovative deep-tech start-ups and scale-ups with a budget of EUR 25 million (this measure was included in the initial roadmap with a total budget of EUR 125 million). The launch was already announced last year but is

[15] Based on data from Dealroom (extracted on 24.03.2025). A unicorn is a company that has been valued at over USD 1 billion in an initial public offering or trade sale or a company that has been valued at over USD 1 billion in its last private venture funding round. Only companies headquartered in the EU are considered. In its adjusted roadmap, Slovenia reports one unicorn, which was acquired in 2017 by a non-Slovene company.

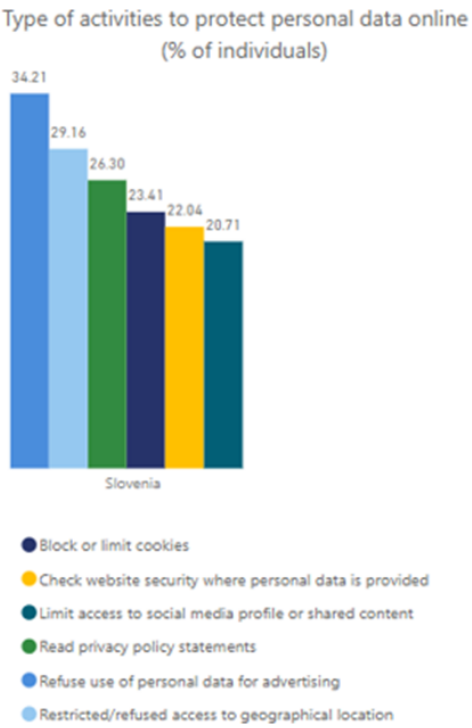
[16] Based on data from Dealroom (extracted on 31.01.2025). A potential future unicorn is a company with a market valuation between USD 250 million and USD 999 million, headquartered in the EU.

currently still being prepared. In the meantime, a call for proposals with a total budget of EUR 2.2 million has been launched to fund the innovative start-ups in their development of minimum viable products and product launches.

Strengthening Cybersecurity & Resilience

In Slovenia, 56% of people have at least basic digital safety skills, well below the EU average of 69.55%. Moreover, only 28.98% of individuals are engaged in three or more precautionary actions (and therefore could be considered as having above basic digital safety skills). The most frequent measure was refusal of the use of personal data for advertising purposes (34.21%), while limiting access to social media profiles and content was the least common (20.71%).

Slovenian enterprises tend to experience fewer incidents related to cyberattacks and employees are less aware of their ICT security related obligations compared to the EU. The number of enterprises that experienced ICT security incidents leading to unavailability of ICT services due to attack from outside (e.g. Ransomware attacks, Denial of Service attacks) slightly increased in Slovenia, from 2.15% in 2022 to 2.58% in 2024. It remains below the EU average (3.43%). Furthermore, Slovenian enterprises are less prone to incidents related to hardware or software failures (8.13%) which is one of the lowest figures in the EU. In terms of security measures, the proportion of enterprises implementing them is below the EU average (86.12% compared to 92.76%). Similarly, the share of enterprises that made their employees aware of their obligations in ICT security related issues is also lower than the EU average (55.08% vs 59.97%).



Slovenia is significantly lagging behind in the adoption of the secure IPv6 protocol, both among end users and on the server side. In deploying secure internet standards, only 12% of end users in Slovenia have adopted Internet Protocol version 6 (IPv6), compared to the EU average of 36%. Similarly, for the internet services that can operate over IPv6, Slovenia stands at 4%, while the EU average is 17%. IPv6 is an important protocol as it ensures the scalability, stability, and security of the Internet. Its deployment has become increasingly urgent, as traditional IPv4 addresses have been exhausted for some time. Domain Name System Security Extensions (DNSSEC) is another important standard that introduces security features to DNS. In Slovenia, the DNSSEC validation rate is 65% in Q3 2024, much higher than the EU average of 47%.

According to the Government Information Security Office, the transposition of the Network and Information Systems (NIS) 2 directive through the new Information Security Act is close to finalisation. The NIS 2 directive seeks to strengthen cybersecurity in 18 critical sectors, including public electronic communications and manufacturing. Industry stakeholders expect that, while the implementation may pose challenges for businesses – such as the need for specialised skills – it could also help drive the adoption of digital technologies in Slovenian businesses. The planned cybersecurity voucher (see SME with at least basic digital intensity section) may provide additional support to businesses in this regard.

Slovenia

With increasing cyber threats, Slovenia develops cyber awareness and capabilities on several fronts. However, in its adjusted roadmap, Slovenia has maintained existing measures without introducing any new ones. For its public services**,** Slovenia is working on connecting several government bodies via a quantum key distribution network to secure their communications (see also quantum section) and is providing cybersecurity trainings to its civil servants. As part of the Digital Healthcare Act, which is still to be adopted, the digitalisation of healthcare infrastructure, including cybersecurity, will be managed by an independent agency that is still to be established. According to the Digital Decade Eurobarometer 2025, 80% of Slovenians think that an improved cybersecurity, better protection of online data and safety of digital technologies would facilitate their daily use of digital technologies.

In terms of integrating cybersecurity into education, Slovenia is creating a network to conduct cybersecurity trainings in schools. This initiative, maintained in its adjusted roadmap, started in summer 2024, with training for teachers set to continue in 2025. So far, 22 schools are involved, with plans to expand the network to a total of up to 80 schools. Additionally, a pilot project of cybersecurity training for girls has been launched, with around 80 girls trained so far.

Protecting and empowering EU people and society

Empowering people and bringing the digital transformation closer to their needs

Slovenia lags behind in digital skills. Although its population has a relatively low level of basic digital skills, the disparities across gender, education level, living areas and age groups are less pronounced compared to the EU and the country is actively working to enhance digital inclusion. Despite making good progress in increasing its proportion of ICT specialists within the workforce, Slovenia still falls below the EU average. The relatively low share of ICT specialists may be one of the factors limiting the adoption of advanced digital technologies by businesses. For example, in 2023, 58.3% of companies expressed interest in adopting AI technologies, but refrained due to the lack of relevant skills[17]. In this context, it will be crucial to see how digital skills will be integrated into the ongoing higher education reform and the education curricula reform. The availability of digital public services is less widespread than in the EU, but their uptake is higher than on EU average. According to the Ministry of Public Administration, providing cross-border services remains challenging, but is expected to be improved with the implementation of the Single Digital Gateway. Moreover, the country intends to enhance the digital transformation of public authorities, in particular for data access and use and on municipality level. A relatively high share of Slovenians encounters hostile and degrading messages online and is exposed to misinformation, which they are less likely to verify compared to their EU peers. Despite leading in using the internet to express opinions on political issues online, Slovenians are the least likely to participate in online consultations or voting on political issues, such as signing a petition.

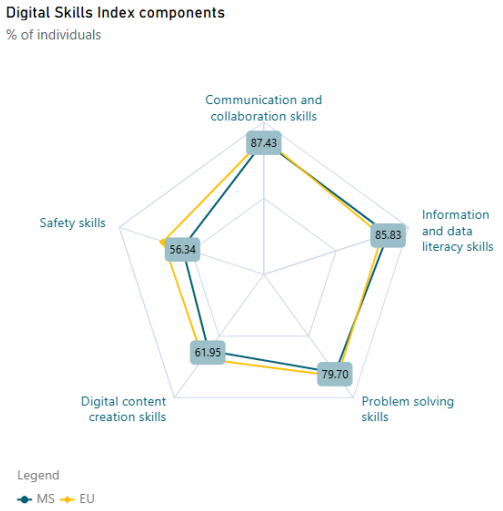
Equipping people with digital skills

Basic Digital Skills

In 2023, Slovenia's population with at least basic digital skills stood at 46.70% (2030 national target is 80%) after a decline of -3.0% compared to 2021[18], lagging behind the EU average of 55.56%. While there are no figures available for 2024, detailed breakdowns of the 2023 data provide a more granular perspective.

[17] IMAD Development Report 2024 (SURS, 2024b).

[18] The decrease could be explained by post-COVID-19 effects, with a decreased digital activity of the population, e.g., with less teleworking or online purchases. Looking at some indicators focused on one specific activity, e.g., use of cloud services, internet use, use of ICT at work and doing financial activities online, Slovenia mainly scores around the EU average.



- **Gender Gap:** The gender disparity in Slovenia is minimal, with 46.92% of men and 46.47% of women having basic digital skills. This gap is also lower than the EU average (0.45 percentage points (pp) compared to 2.23 pp).
- **Education Level:** Slovenia scores below the EU average across all education levels, but the skills gap between these levels is narrower compared to the EU average. Among individuals with a high formal education, 68.69% have basic digital skills (EU average: 79.83%). The group with no or low formal education is most affected, with only 32.61% possessing basic digital skills (EU average: 33.61%). However, the gap between this group's digital skills and the national average is 14.09 pp, smaller than the EU average gap of 21.95 pp.
- **Living Areas:** 42.41% of the rural residents in Slovenia have basic digital skills, which is under the EU rural average of 47.50%. However, the gap between rural residents and the Slovenian national average is 4.29pp and narrower than the EU average gap of 8.06pp.
- **Age Groups:** The age group analysis shows that 16 to 24-year-olds are the most skilled digitally, with 73.07%, which is the only age group where Slovenia is surpassing the EU average (69.98%). Conversely, the 65 to 74-year-olds demonstrate the lowest digital skills level, at a mere 17.06%, which is far below the EU average of 28.19%.
- **Digital Skills Index components:** Looking at the five Digital Skills Index's individual areas, Slovenia is above the EU average only in one of them: information and data literacy, scoring 85.83%. Moreover, the level of safety skills is concerning, with Slovenia scoring only 56.34%, substantially lower than the EU average of 69.55%.

Although Slovenia lags behind in basic digital skills, the disparities across gender, education level, living areas and age groups are less pronounced compared to the EU.

Slovenia's target for the basic digital skills of its population remains at 80% in its adjusted roadmap. To support this, Slovenia has introduced two new measures in its roadmap focusing on digital inclusion: one aimed at assisting NGOs in the use of digital technologies and another one on monitoring digital inclusion to inform future initiatives. However, two measures in formal education and digital inclusion have been removed (one of them has been removed due to the pending legal basis for implementing a train-the-trainer concept for digital literacy).

A key initiative in this area is the modernisation of education curricula, with the goal of integrating digital skills more comprehensively into pre-school, primary, and secondary education. A broad group of experts from academia, public development institutions, and practitioners has been involved in the reform, and the work on updating the curricula is about to be finalised. The updated curricula are expected to be processed for government adoption by the end of 2025., Slovenia reported that it plans to integrate digital skills at all levels, including in primary and secondary schools. However, it remains to be seen how extensively digital skills will be integrated. Although acquiring digital skills is not mandatory in teacher training programmes, digital skills for teachers are being incorporated into various educational projects. Additionally, new IT solutions in teaching are being supported through dedicated projects, such as an app for pupils on learning to read, already used by over 4 000 teachers in their classes.

Slovenia

Slovenia continues to implement measures to support basic digital skills across different demographic groups, including young people, adults, older people, and vulnerable groups. However, it remains to be seen if these efforts will be sufficient to address the low level of basic digital skills across the population overall. Since 2022, people aged 55 and older have been able to develop basic digital skills through the 'classroom on wheels' project. By now, the project mobile heroes has reached over 5 000 participants throughout the country and Slovenia has also shared this project as one of four best practices for the Digital Decade Best Practice Accelerator on basic and advanced digital skills. Since 2024, more than 15 000 young people have improved their digital skills in the project Youth 2024 through workshops and courses, with a focus on encouraging girls into ICT, teaching advanced digital technologies like AI and blockchain, and building competencies such as information and data literacy and problem-solving. The project will be continued, with a new call for tender already underway. Furthermore, over 10 000 participants aged 30 and more have taken part in non-formal training courses to acquire basic and advanced digital skills, as well as increased awareness about responsible and safe technology use. By October 2025, the number of adults trained is expected to exceed 25 000. Moreover, ongoing training programmes are enhancing the digital competencies of civil servants, covering both basic and advanced digital skills as well as digital leadership skills. In total, at least 40 000 participations will be provided by 2026, with Slovenia reporting that more than half of these have already been completed.

According to the 2025 Eurobarometer, 78% of Slovenians think that human support to help accessing and using digital technologies and services would facilitate their daily use of digital technologies. 86% of Slovenian respondents think that public authorities should prioritise ensuring that people receive proper human support to accompany the transformation brought by digital technologies and services.

2024 recommendation on basic digital skills: Accelerate efforts in the area of basic digital skills. In particular, by increasing the level of these skills to allow its population and economy to make full use of the potential of digital transformation. This can be done through an increased and intensified offer and collaboration between public and private actors.

Slovenia made some efforts to address the recommendation through new policy actions in 2024. Slovenia continues to implement measures to support basic digital skills across various demographic groups and added two new measures in its adjusted roadmap to promote digital inclusion. The curricula reform, a vital component for integrating digital skills more broadly throughout the population, is currently still ongoing and it remains to be seen how digital skills will be reflected exactly.

ICT specialists

In 2024, Slovenia is at 4.3% of ICT specialists in total employment (2030 national target is 10%) after a considerable increase of 13.2% but remains below the EU average of 5.0%. The country is lagging behind compared to its national trajectory. Nonetheless, Slovenia is making progress in narrowing the gap with the EU, with its share of ICT specialists increasing from 3.8% in 2023 (EU-level share: 4.8%) at a notably higher growth rate of 13.2% compared to the EU's 4.2%. The percentage of female ICT specialists in Slovenia is now 19.2%, slightly below the EU average of 19.5%, yet marked by a growth rate of 12.3% which exceeds the EU's 0.5%. In 2023, Slovenia's female ICT specialist share was 17.1% compared to 19.4% at the EU level, indicating a positive trend in improving gender diversity within the sector. In 2024, 26.94% of enterprises with 10 or more employees in Slovenia provided ICT training, surpassing the EU's 22.29%. However, while the EU's share of enterprises providing ICT training stagnated, Slovenia's share declined compared to 2022 (28.86% in Slovenia vs 22.37% on EU level).

Slovenia's target for ICT specialists remains at 10% in employment in its adjusted roadmap. Despite the considerable efforts required to meet this target, Slovenia has not introduced any new measures in its adjusted roadmap. In fact, it has reduced the budget for most of the existing initiatives, which are often narrowly focused in scope and appear suitable for providing targeted support in specific technology areas (cybersecurity and quantum). Additionally, a range of shorter programmes for reskilling or -upskilling focused on different topics, will continue. These programmes will primarily be targeted at women. However, these efforts do not seem sufficient to address the need for ICT specialists in the country sufficiently.

A key initiative in this context is the reform of the higher education curricula, aimed at integrating digital skills more comprehensively into higher education. The proposal for this curricula update is currently in interministerial consultation and is expected to be introduced next year. Against the background of the current needs, it remains to be seen how extensively advanced digital skills will be integrated. At the same time, pilot projects are being carried out to test solutions for integrating digital skills into higher education curricula, with a focus on improving labour market outcomes. Given the strong interest from both employers and employees, micro-credential courses in digital skills have also been launched in this context. The OECD's mid-term evaluation of several pilot projects, presented in February 2025, confirms that digital transformation - often linked to upgrading digital infrastructure - and the development of micro-credentials are key focus areas of the pilot projects. The OECD also highlighted that identifying skill shortages and predicting the competencies needed remains a significant challenge, and that interdisciplinary approaches are crucial for embedding digital skills.

Efforts to anticipate the demand for ICT specialists and future job market trends are ongoing. However, the latest skills forecast data from the Labour Market Platform dates back to June 2023, with an update expected by 2028. Furthermore, Slovenia has conducted pilot projects in both the public and pharmaceutical sectors to explore how sector-specific changes, such as increased production in the pharmaceutical industry, can be factored into the higher education system. The key findings from these projects suggest that addressing the dynamic needs of various economic sectors remains challenging and that updating educational offers to match these needs can still take long (several years in this case). Reports suggest that Slovenia does not yet have an integrated mechanism for knowing and forecasting human resources needs or competences[19].

2024 recommendation on ICT specialists: Strengthen the early identification of labour market needs and further complement them for a swift reaction, especially in the area of digital upskilling and reskilling, adapt the (higher) education curricula to the latest digital needs and addressing the gender gap. Strengthened collaboration between industries, (higher) education institutions, public administration and relevant stakeholders can increase the effectiveness of those measures.

In 2024, Slovenia continued the implementation of existing measures but did not take any new measures. Slovenia continues to implement previously existing measures (no new measures have been added to the adjusted roadmap). Some of these measures aim to address a critical issue: the swift adaptation to labour market demand. However, they have yet to result in significant improvements. The ongoing higher education reform will be crucial in this context. Additionally, the roadmap continues to primarily focus on measures that enhance skills for specific technologies. This approach is unlikely to substantially expand the pool of ICT specialists, also given the budget reductions in the adjusted roadmap for those measures.

[19] IMAD (Institute of Macroeconomic Analysis and Development): Development Report 2024

Key digital public services and solutions – trusted, user-friendly, and accessible to all

For digital public services for citizens, in 2024 Slovenia scored at 78.58 (2030 national target is 100) after a growth of 2.0%, which is still below the EU average of 82.32. The country is on track according to its national trajectory. However, Slovenia's growth rate of 2.0% fell short of the EU's 3.6%. Looking at cross-border digital public services for citizens specifically, Slovenia scored lower than the EU (64.29 compared to 71.28) and had a lower growth rate than the EU (2.8% compared to 4.3%). The share of e-Government users, i.e. people using the internet to interact with public authorities on website or apps was higher than the EU average (80.56% compared to 74.71%).

For digital public services for businesses, Slovenia scored at 85.0 in 2024 (2030 national target is 100) after a growth of 1.2%, although still below the EU average of 86.23. **The country is lagging behind compared to its national trajectory.** Slovenia's growth rate of 1.2% outpaced the EU's 0.9%. For cross-border digital public services for businesses, Slovenia scored 70.0 in 2024, lower than the EU's 73.76, but again with a higher growth rate than the EU (1.2% vs 0.9%).

For access to e-health records, Slovenia scored at 87.47 (2030 national target of 100) with no significant change compared to 2023 (growth rate of 0.1%)[20], which is still higher than the EU's 82.7. The country is on track according to its national trajectory. However, Slovenia's growth rate of -0.1% was significantly lower than the EU's 4.5%.

e-ID

Slovenia's e-ID card scheme was notified under the eIDAS regulation and the country is contributing to the development of an EU Digital Wallet. In its adjusted roadmap, Slovenia maintains the additional, self-set target of having at least 80% of people using their e-ID for public services. In 2023, the share of the population who reported having used their e-ID to access online services in the last 12 months was below the EU average (35.7% vs 41.1%). More recent data is not available, but according to the Ministry of Public Administration, the e-ID penetration has remained relatively low. In response, the Ministry plans to simplify the authentication process for mobile applications by summer 2025.

Slovenia is also actively contributing to the development of the European Digital Identity Wallet (EUDI Wallet) by participating in two large scale pilots working on various use cases: POTENTIAL, a consortium working on six key use cases, including bank account opening, qualified electronic signature' to sign documents remotely and 'e-government services' to prove user's identity quickly and securely. The country is also involved in the pilot Digital Credentials for Europe (DC4EU) focused on the educational and social security sectors. Furthermore, Slovenia is involved in the set-up of the consortium Wallet Ecosystem for Business & Payment Use cases, Identification, Legal person representation and Data sharing (WE BUILD). The project is set to begin later in 2025 and aims to pilot the use of EUDI Wallets across various use cases in business, supply chain and payments.

Digitalisation of public services for citizens and businesses

Slovenia's targets for digital public services for people and businesses remain at 100% in its adjusted roadmap. Several ministries are involved in implementing the Action Plan of the Digital Public Services Strategy 2030, which was adopted in summer 2023. An update on the progress of the Action Plan's implementation is expected to be published by autumn 2025. Additionally, the country launched a European Social Fund Plus-funded project in July 2024 to digitalise employment services. The new employment platform and e-services will support jobseekers in their search and provide career

[20] The slight decrease can be explained by adjustments in the definition of health facilities supplying data compared to the previous reporting period.

guidance and orientation. According to the 2025 Eurobarometer, 82% of Slovenians people think that accessing public services online will be important for their daily life by 2030.

In its roadmap adjustment, Slovenia has introduced several new measures to accelerate the digital transformation of public authorities. The measures focus primarily on two areas: enhancing data access, use and quality, and supporting the digital transformation at local level. To improve data quality and exchange within public sector organisations, Slovenia is in the process of establishing data administrators in different organisations. At the local level, the measures include assessing the digital maturity of Slovenian municipalities, developing digital transformation plans to strengthen the digital capacities of local communities and the creation of a smart community data space.

2024 recommendation on key digital public services: Continue efforts to digitalise public services. Slovenia should continue to pay particular attention to the participatory development and user-friendliness of these services.

Slovenia made some efforts to address the recommendation through new policy actions in 2024. Slovenia did not provide sufficiently detailed information to allow an assessment of the action taken since last year's report. A progress report on the Action Plan of the Digital Public Services Strategy will not be provided before autumn 2025. However, new measures have been incorporated in the adjusted roadmap, specifically targeting the digitalisation of public authorities on municipality level and the improvement of data access and usage.

e-Health

Slovenia's target for citizens' access to e-health records remains at 100% in its adjusted roadmap. The preparation of the Digital Healthcare Act, which includes the standardisation of data across national registries to enhance healthcare access and quality, remains a key activity in this area (see also Cybersecurity section). In this context, an important milestone for 2025 is enhancing the patient portal zVem to a one-stop portal which allows safe and reliable communication with all healthcare providers via this channel. In this context, the patient portal of the National Health Insurance Institute has merged with zVEM, leading to patients having access to both electronic health records and their health insurance data through a single service.

According to the 2025 Eurobarometer, 77% of Slovenians people think that digital technologies will be important when accessing or receiving healthcare services (e.g., telemedicine, artificial intelligence for diagnosis diseases) for their daily life by 2030.

2024 recommendation on e-Health: Make the data types of medical imaging reports and medical images available to citizens through the online access service and build on existing legal provisions as well as technical solutions for authorised persons to access electronic health data on behalf of others.

Slovenia made some efforts to address the recommendation through new policy actions in 2024. While the number of registered users has increased and more sub-categories of health records are available to patients, data on medical devices and medical images are still not available to citizens. Regarding access for authorised persons, Slovenia is developing proxy authorisation that will enable individuals to authorise persons to use patient access services, but this is not yet implemented for citizens.

Building a safe and human centric digital environment and preserving our democracy

Slovenia shows a varied landscape in the internet use for civic or political participation. In 2024, 34.08% of people used the internet for civic or political participation, marking a significant increase from 21.41% in 2023, and positioning Slovenia as the highest scoring EU country. However, a closer look at the types of participation reveals a more nuanced situation. Slovenia leads the EU in using the internet to express opinions on civic or political issues on websites or in social media, with 32.13% of people engaging in this activity, compared to the EU average of 16.48%. On the other hand, Slovenia has the lowest participation rate in the EU for activities like online consultations or voting on civic or political issues, with only 5.63% of people taking part, well below the EU average of 10.05%.

Slovenia continues to actively address disinformation and hate speech through various initiatives. The Government Communication Office, the Ministry of Digital Transformation and AKOS, the national regulatory authority for telecommunications, are leading those activities. Under the reREAD, reTHINK, RECHECK campaign, Slovenia implements a range of communication activities, including additional campaigns, webportals, social media accounts, podcasts[21], events (e.g. for government and non-government communicators) and enlists Slovenian celebrities as testimonials in its activities to broaden their impact. Moreover, the country also trains civil servants (especially relevant for teachers) and the Slovenian Press Agency offers a fact-checker. In 2024, AKOS published 98 articles, and 108 social media posts aimed at increasing awareness about disinformation and hate speech.

A high share of the Slovenian population, especially young people, is often encountering hostile and degrading messages online. In 2023, in Slovenia, 43.76% of individuals encountered online messages that were considered hostile or degrading towards groups based on factors such as political views, disability, ethnical origin or LGBTIQ identities. This figure was significantly above the EU average of 33.5%. Young people aged 16–24 were more exposed than adults aged 25–64 (52.89% compared to 46.30%), reflecting a moderate age-related difference. Males (42.01%) and females (45.61%) reported similar rates of exposure, indicating balanced impacts across genders. According to the Digital Decade Eurobarometer 2025, Slovenians think that the action of public authorities is urgent to protect children online regarding the negative impact of social media on children's mental health (97% of Slovenians), cyberbullying and online harassment (96%) and to put in place age assurance mechanisms to restrict age-inappropriate content (96%).

Slovenian internet users report higher exposure to untrue or doubtful information online compared to their EU peers, but they are less prone to check its truthfulness. In 2023, 52.77% of people reported having encountered untrue or doubtful information or content on internet news sites or social media, surpassing the EU average of 49.25%. However, only 18.86% of these individuals checked its truthfulness. While the percentage of people who did not check because they already knew the information, content or source was not reliable is nearly twice as high as in the EU (24.05% compared to 12.55%), this still reflects a relatively low level of critical evaluation among those who recognised misleading content. Looking at different age groups, younger users, aged 16-24, were more exposed to untrue or doubtful information online (72.55%) than adults, aged 24-64 (55.66%), which could be due to different patterns of internet usage. Verification rates also differed significantly, with 36.26% of younger users checking the accuracy of content, compared to just 18.52% of adults.

[21] E.g. GOVSI Podcast: »Democracy is under attack« | GOV.SI or https://www.gov.si/en/news/2024-05-24-govsi-podcast-lets-stop-disinformation/.

Leveraging digital transformation for a smart greening

The new green budgeting framework that Slovenia is developing under the RRP will help authorities to better address climate and environmental challenges. Furthermore, municipalities have begun using land mass data to monitor the effect of climate change. More broadly, the activities of Slovenian municipalities on green and digital transition are currently being identified and mapped with the aim of preparing a country-wide matrix and increasing coordination with municipalities in a public consultation.

The population recycles only a small part of its ICT equipment. Slovenians recycled laptops, desktops or mobile devices (9.44% for laptops and tablets, 13.55% for desktop computers and 9.43% for mobile phones) less frequently than the EU average (11.31%, 14.66% and 10.93%, respectively). Overall, a higher percentage of Slovenians either never purchase new devices, continue to use old ones or choose to sell or give them away compared to the EU average. Similar to the EU, eco-friendly criteria are less important when purchasing a new ICT device than factors like price, performance and design. Looking more closely at these criteria, Slovenia falls below the EU average in considering energy efficiency and eco-design as important when buying ICT devices (13.39% compared to 19.35% for energy efficiency and 10.00% compared to 12.04% for eco-design). One key player in digital equipment reuse and redistribution is the Slovenian NGO Duh Časa.

Slovenia is taking steps to leverage the green transition through digital technologies. The adjusted roadmap includes two new measures: one on modernising green public procurement and another one on creating a digital twin. The Green Public Procurement Regulation will be updated to pursue the 'energy efficiency first' objective in public procurement, specifically targeting data centres, server rooms, cloud services and electronic devices. The digital twin project will establish a national infrastructure for spatial information, offering applications to visualise property values or monitor environmental parameters. Although green and digital transition are sometimes addressed in the same projects and tenders (e.g. circular and digital business models), there does not yet seem to be a systematic approach on how to consider their interaction or leveraging each other. According to the Digital Decade Eurobarometer 2025, 64% of Slovenians consider digital technologies important to help fight climate change, while 79% of Slovenian respondents think that ensuring that digital technologies serve the green transition should be an important action for public authorities.

2024 recommendation on green ICT: (i) Develop a coherent approach to twinning the digital and green transitions. First, promote improvements in energy and material efficiency of digital infrastructures, in particular data centres. Second, support the development and deployment of digital solutions that reduce the carbon footprint in other sectors, such as energy, transport, buildings, and agriculture, including the uptake of such solutions by SMEs.

(ii) Monitor and quantify the emission reductions of the deployed digital solutions in line with the relevant EU guidance and with the support of the methodology developed by the European Green Digital Coalition, in view of future policy development, as well as of attracting relevant financing.

Slovenia made some efforts to address the recommendation through new policy actions in 2024. Slovenia is taking steps to leverage the green transition through digital technologies, including new

measures in its adjusted roadmap. These measures include monitoring activities and using digital technologies to leverage the green transition.

Annex I – National roadmap analysis

Slovenia's national Digital Decade strategic roadmap

Slovenia submitted a revised national Digital Decade roadmap on 31 January 2025[22] which brings it together with the Digital Slovenia 2030 Action Plan. While the update brings some new impulses in line with the new Commission's priorities in areas like green IC, AI and semiconductors, the update does not sufficiently address the challenges the country is facing, especially in the areas of basic and advanced digital skills and digitalisation of businesses.

The new roadmap responds to a limited number of the recommendations issued in last year's report:

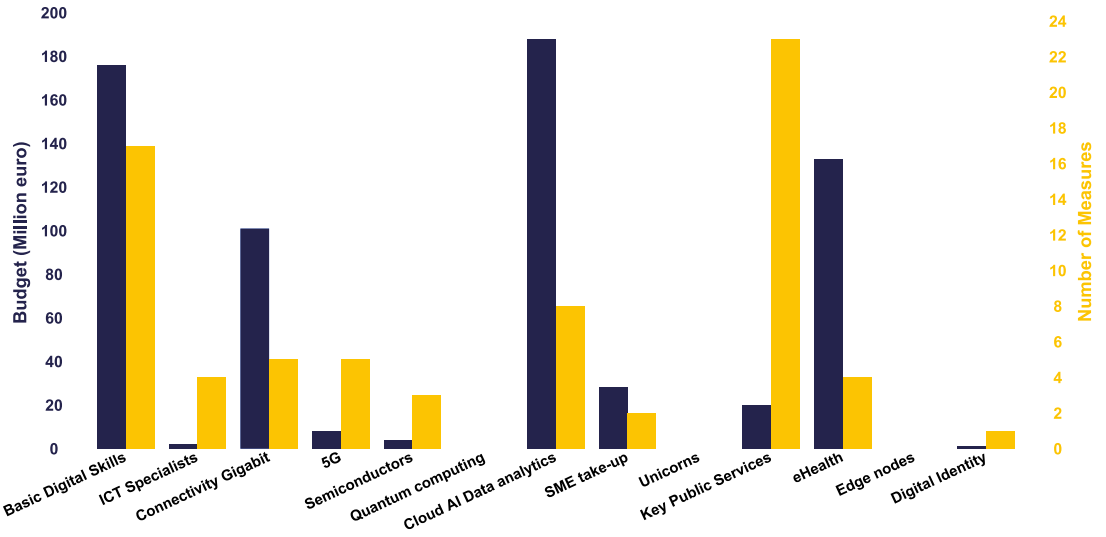
- All national target values were kept in line with the EU's 2030 ambition level. The additional targets on e-ID uptake by 80% of users of public services was also maintained, along with the quantitative estimates on how Slovenia will contribute to achieving the semiconductor target through companies involved in semiconductor R&D and manufacturing and the edge node target with companies deploying edge nodes.
- The roadmap contains some new or changed measures compared to the initial roadmap submission in 2023. New measures were added for several areas, especially for digitalisation of public administration. However, several measures, especially linked to Digital Decade objectives and all measures linked to startups have been removed from the adjusted roadmap.
- The adjusted roadmap was consulted with stakeholders[23]. The Slovenian national network of non-governmental organisations for an inclusive information society has continued to systematically monitor the implementation of the national roadmap through the project 'Co-creating digital policies in Slovenia 2 – CODIS 2', led by the Institute for Electronic Participation. This project received funding from the European Citizen Action Service (ECAS)[24]. Key outcomes of the project include the development of a dashboard monitoring the roadmap implementation, the production of monitoring reports and the organisation of workshops. Based on these activities, the NGO network has formulated recommendations on the roadmap adjustment, which were shared with the Ministry of Digital Transformation and also reflected in the NGO network's feedback in the context of the national roadmap adjustment consultation. The follow-up project 'CODIS 3', also funded by ECAS, will continue these monitoring activities with a focus on good governance principles.

[22] Government approval pending due to some changes linked to the Digital Slovenia 2030 Action Plan. For the purpose of the Digital Decade Policy Programme, the content of the roadmap submitted on 31 January 2025 can be considered final. Corrigendum to Digital Decade Country Report Slovenia 2024: The initial national roadmap was adopted by the Slovenian Government in December 2023, before its publication and submission to the European Commission.

[23] Roadmap was published on 20 December 2024 for public consultation by 20 January 2025. Written consultation period 20 December 2024 until 20 January 2025.

[24] ECAS regranting scheme of the European Citizenship Accelerator project 2024, co-funded by the Citizenship, Equality, Rights and Values programme of the European Union.

Measures and budget in national roadmap[25]



In total, the measures presented amount to EUR 685 million for 81 measures which represents 1% of Slovenia's GDP. Basic digital skills and digital public services are the targets with the highest number of measures. In terms of budget, the highest shares are allocated to basic digital skills and AI uptake.

[25] When referring to national roadmaps, data used in this report are those declared by the Member States in their national roadmaps, on the basis of the Commission's guidance (C(2023) 4025 final). Data might reflect possible variations in reporting practices and methodological choices across Member States. No systematic assessment of the extent to which Member States followed the guidance was carried out.

Annex II – Factsheet on multi-country projects (MCPs) and funding

Multi-country projects and best practices

Slovenia is a member of the three established EDICs: the Alliance for Language Technologies EDIC, the Local Digital Twins towards the CitiVERSE EDIC and the EUROPEUM EDIC on blockchain. Slovenia is also working towards setting up an EDIC in the area of cybersecurity skills. Slovenian entities are indirect and/or associated partners in the IPCEI on Microelectronics and Communication Technologies (IPCEI-ME/CT) and in the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS).[26] Slovenia is also a participating state in the EuroHPC Joint Undertaking (JU) and of the Chips JU.

Slovenia is leading a working group of the Digital Decade's Best Practice Accelerator[27] aimed at improving basic and advanced digital skills. The Slovenian authorities have carried out extensive coordination work and shared their best practices and experience from different initiatives, in particular on digi info points, an adult digital literacy programme, mobile heroes (for older people) and digital training for children and youth. So far, five workshops have been organised by Slovenia to establish an exchange with the Members of Digital Skills and Jobs Coalitions, on digital skills in formal and non-formal education, on girls and women in ICT and on digital skills for employment.

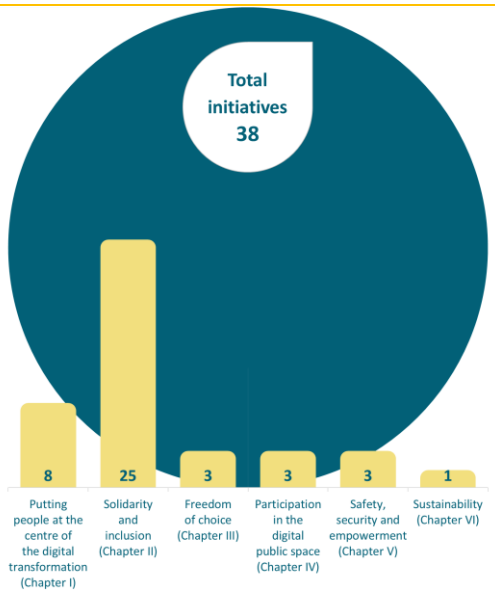
EU funding for digital policies in Slovenia

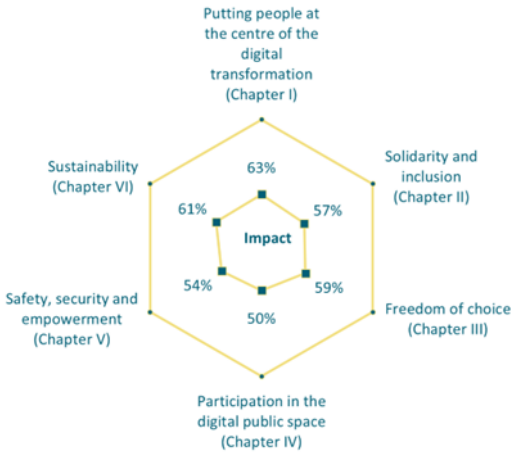
Slovenia allocates 20% of its total recovery and resilience plan to digital (EUR 513 million)[28]. In addition, under cohesion policy, EUR 287 million (representing 9% of the country's total cohesion policy funding), is dedicated to advancing Slovenia's digital transformation[29]. According to JRC estimates, EUR 636 million directly contribute to achieving Digital Decade targets (of which EUR 439 million comes from the RRF and EUR 197 million from cohesion policy funding)[30].

For the RRF, the largest amounts are dedicated to digitalisation of key public services, including to remove obstacles to support the provision of digital public services and processes (e.g. enlarge the scope of electronic procedures in administrative processes), and e-Health, including to integrate new digital services into healthcare and to implement telemedicine. The third payment request was disbursed to Slovenia in October 2024. So far, the country received EUR 1.1 billion in RRF grants and loans. The Slovenian Cohesion Policy Programme 2021–2027 supports, inter alia, the digital transformation of public administration and SMEs.

[26] Corrigendum to Digital Decade Country Report Slovenia 2024: Slovenian entities are indirect partners in the Important Project of Common European Interest on Next Generation Cloud Infrastructure and Services (IPCEI-CIS).
[27] The Best Practice Accelerator (BPA) is a platform that enables Member States to share successful measures and challenges encountered in their efforts to meet their Digital Decade targets and objectives. Best practices are made available to Member States via the BPA Repository and showcased in regular workshops, currently focused on three thematic clusters: Digital Skills, Green IT, and the Uptake of Digital Technologies.
[28] The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation. Last data update: 16 May 2025.
[29] This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 Cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.
[30] Joint Research Centre, Nepelski, D. and Torrecillas, J. Mapping EU level funding instruments 2021-2027 to Digital Decade targets – 2025 update, Publications Office of the European Union, Luxembourg, 2025, JRC141966. Last data update: 10 March 2025.

Annex III – Digital Rights and Principles[31]





Activity on Digital Rights and Principles (figure 1)

Slovenia has shown rather limited activity in implementing digital rights and principles, with the overall number of initiatives of around a half or less of the EU average (77). Slovenia launched 3 new initiatives in 2024, showing limited progress towards its commitments. Slovenia is most active in the area of Solidarity and inclusion (II). There is room for improvement, especially with regards to Privacy and individual control over data (V) where less activity has been identified.

Impact of Digital Rights Initiatives (figure 2)

Quantitative impact indicators developed by the support study illustrate the level of implementation of digital rights initiatives on the ground. Based on available data, they estimate the impact of measures implemented by key stakeholders in Slovenia (mainly national government) and how these are perceived by citizens.

The indicators suggest that Slovenia is most successful in implementing commitments related to Putting people at the centre of the digital transformation (I). Slovenia should strengthen efforts in areas where the impact of digital rights initiatives appears to be limited, notably on Participation in the digital public space (IV).

According to the Special Eurobarometer 'Digital Decade 2025', 48% of citizens in Slovenia think that the EU protects their digital rights well (a 2% increase since 2024). This is above the EU average of 44%. Citizens are particularly confident about getting freedom of assembly and of association in the digital environment (64%, above the EU average of 59%). They are most worried that their right to a safe digital environment and content for children and young people is not well protected (54%, above the EU average of 48%).

[31] Based on a study to support the Monitoring of the Implementation of the Declaration on Digital Rights and Principles, available here. For a more detailed country factsheet accompanying the study, click here.