



Digital Public Administration factsheet 2023

Slovenia



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Interoperability State-of-Play

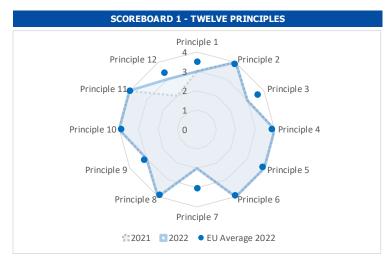
1 Interoperability State-of-Play

In 2017, the European Commission published the European Interoperability Framework (EIF) to give specific guidance on how to set up interoperable digital public services through a set of 47 recommendations divided in three pillars. The EIF Monitoring Mechanism (MM) was built on these pillars to evaluate the level of implementation of the framework within the Member States. Whereas during the previous, the MM relied upon three scoreboards, the 2022 edition includes an additional scoreboard on cross-border interoperability, assessing the level of implementation of 35 Recommendations. The mechanism is based on a set of 91 Key Performance Indicators (KPIs) clustered within the four scoreboards (Principles, Layers, Conceptual model and Cross-border interoperability), outlined below.

Recommendation	on(s) n°	Recom	mendation(s) n°	Recomm	endation(s) n°
Principle 1 - Subsidiarity and Proportionality	1	Interoperability Governance	20-24	Conceptual Model	34-35
Principle 2 - Openness	2-4	Integrated Public Service Governance	25-26	Internal information sources and services	36
Principle 3 - Transparency	5	Legal Interoperability	27	Basic Registries	37-40
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Principle 7 - Inclusion and accessibility	14			Security and Privacy	46-47
Principle 8 - Security and privacy	15				
Principle 9 - Multilingualism	16				
Principle 10 - Administrative simplification	17				
Principle 11 - Preservation of information	18				
Principle 12 - Assessment of Effectiveness and Efficiency	19				

Source: European Interoperability Framework Monitoring Mechanism 2022

Each scoreboard breaks down the results into thematic areas (i.e. principles). The thematic areas are evaluated on a scale from one to four, where one means a lower level of implementation and four means a higher level of implementation. The graphs below show the result of the EIF MM data collection exercise for Slovenia in 2022, comparing it with the EU average as well as the performance of the country in 2021.



Source: European Interoperability Framework Monitoring Mechanism 2022

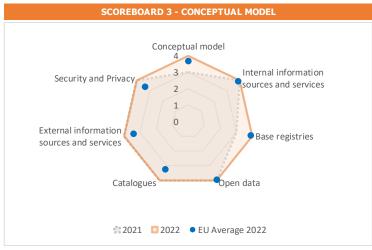
Slovenia's results in Scoreboard 1 show an overall good implementation of the EIF principles. Slovenia meets the European average for every principle, except for Principle 3 (Transparency) which obtains a score of 3 and for Principle 7 (Inclusion and accessibility), which are below the European average with a respective score of 3 and 2. Regarding Principle 12 (Assessment of Effectiveness and Efficiency), implementation of the recommendations improved the score by 2 to 3. The areas of improvement for Slovenian public administrations are as follows: firstly, enhance internal visibility and to provide external interfaces for European public services by

enhancing the online availability and accessibility of the administrative procedures (Recommendation 05). Second, to ensure that all public services are accessible to all citizens, including persons with disabilities, the elderly and other disadvantaged groups (Recommendation 14).



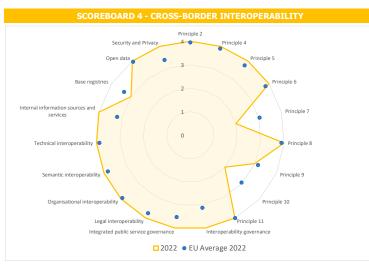
Source: European Interoperability Framework Monitoring Mechanism 2022

The Slovenian results for the implementation of interoperability layers assessed for Scoreboard 2 show an overall good performance. Slovenia reaches a maximum score of 4, in line with the European average, for all interoperability layers. To maintain this high performance, a potential area of improvement could be to enhance the implementation of two recommendations linked to interoperability governance and Integrated public service governance. Recommendation 23 addresses the consultation of relevant catalogues of standards, specifications and guidelines at national and EU level, in accordance with your NIF and relevant DIFs, when procuring and developing ICT solutions. Recommendation 25 is aimed at guaranteeing interoperability and coordination over time when operating and delivering integrated public services by putting in place the necessary governance structure.



Source: European Interoperability Framework Monitoring Mechanism 2022

Slovenia's scores assessing the Conceptual Model in Scoreboard 3 show a good performance in the implementation of most recommendations. In line with the European average, Slovenia gets a maximal score of 4 for all. Slightly above the European average, Slovenia obtains a maximal score of 4 for external information sources and services, for security and privacy and for catalogues. Potential areas of improvement could be to match each base registry with appropriate metadata including the description of its content, service assurance and responsibilities, the type of master data it keeps, conditions of access and the relevant licences, terminology, a glossary, and information about any master data it uses from other base registries (Base Registries - Recommendation 39).



Source: European Interoperability Framework Monitoring Mechanism 2022

The results of Slovenia concerning Cross-border Interoperability in Scoreboard 4 show an overall good performance of the country in 16 indicators. However, Slovenia has still margin for improvement. Principle 7, 10 and Base Registries are below the EU average. Efforts could focus on ensuring that all European public services are accessible to all citizens, including persons with disabilities, the elderly and other disadvantaged groups (i.e. Recommendation 14) and on simplifying processes and use digital channels whenever appropriate for the delivery of European public services, to respond promptly and with high quality to users' requests and reduce the administrative burden on public administrations, businesses and citizens (i.e. Recommendation 17). Lastly, potential area of improvement could be focusing on developing interfaces with base registries and authoritative sources of information, publish the semantic and technical means and documentation needed for others to connect and reuse available information (i.e. Recommendation 38).

Additional information on Slovenia's results on the EIF Monitoring Mechanism is available online through interactive dashboards.

Curious about the state-of-play on digital public administrations in this country?

Please find here some relevant indicators and resources on this topic:

- Eurostat Information Society Indicators
- Digital Economy and Society Index (DESI)
- eGovernment Benchmark

2 Digital Public Administration Political Communications

2 Digital Public Administration Political Communications

2.1 Specific Political Communications on Digital Public Administration

Berlin Declaration on Digital Society and Value-Based Digital Government

In December 2020, the Slovenian government signed the Berlin Declaration on Digital Society and Value-Based Digital Government, thus re-affirming its commitment – together with other EU Member States – to foster digital transformation in order to allow citizens and businesses to harness the benefits and opportunities offered by modern digital technologies. The Declaration aims to contribute to a value-based digital transformation by addressing and strengthening digital participation and digital inclusion in European societies.

Digital Slovenia 2030 Strategy

In April 2023, the Slovenian government adopted the Digital Slovenia 2030 Strategy as the umbrella strategy in the field of digital transformation to determine the key strategic development directions for the future of the country. It integrates individual sectoral strategies into a single strategic development framework. Digital Slovenia 2030 considers the ambitions and principles of the EU and at the same time focuses on Slovenia's key challenges in digital transformation, and thus identifies six priority content areas for digital transformation: (i) Gigabit infrastructure; (ii) Digital Competences and Inclusion; (iii) Digital transformation of the economy; (iv) Path to a Smart Society 5.0; (v) Digital public services, and (vi) Cybersecurity. The Digital Slovenia 2030 strategy is human- and environment-centred. It highlights the principles of the European Declaration on Digital Principles and Rights and it also includes additional specific principles, such as: (i) general awareness of the importance of digital transformation; (ii) the internet as a strategic tool for digital transformation; (iii) the protection of a free open internet; (iv) the pursuit of cross-sectoral synergies; (v) the use of the Slovenian language and the preservation of cultural identity, and (vi) the promotion of research and development of digital technologies and their use. The vision of the Digital Slovenia 2030 strategy is to improve the guality of life of the Slovenian population in a sustainable and trustworthy way through the digital transformation of society, the state, local communities, and the economy. The overarching goal of the strategy is to promote the digital transformation of Slovenia in all segments - society, state, local communities, and economy. The Digital Slovenia 2030 strategy sets out targets with indicators for each of the priority content areas.

new Digital Public Services Strategy 2030

In December 2022, the Slovenian government adopted the Digital Public Services Strategy as one of the key elements of Slovenia's digital transformation by 2030. The strategy clearly sets out the direction for the development of digital public services, putting people and businesses at the heart of digital transformation. The strategy defines a framework that will enable the development of simple services and promote their widespread use. This requires a single digital identity, efficient use of modern information technology and infrastructure, and a digitally empowered public sector. The goal of the Strategy are citizen and business-centric digital public services that enable citizens and businesses to interact with public administration in an integrated, coordinated, secure and efficient way. Three strategic priorities have been identified, which represent digital targets at the highest level and are also aligned with the strategic context of the European Union: (i) by 2030, all key public services that are digitally accessible will also be performed digitally, and (iii) at least 80% of users of public services will use their digital identity.

Action Plan for Better Regulation

Intensive work is underway to implement the measures set out in the Action Plan for Better with the aim to develop a systemic approach for better regulation. The key result of the implemented measures in action plan will be the setting-up of the MOPED system (a modular IT system for eDocuments).

Some of the measures, taken from the Action Plan and aimed to improve the quality of regulation, are:

- Standardisation and e-support for the preparation of normative documents through the MOPED system
- Concretisation of objectives, indicators and deadlines for regulatory reviews;
- Strengthening of the stakeholder consultation process;
- Strengthening of inter-ministerial coordination on draft regulations;
- Strengthening of the connection between IT systems, used by the government and the National Assembly;
- Systematic implementation of impact assessments and ex-post evaluations; and
- Conducting systematic and continuous trainings of civil servants in the field of better regulation.

The implementation of the measures in the Action Plan can be monitored online by the general public via the Single Document.

2.2 Interoperability

Semantic Interoperability Implementation Strategy

According to the Semantic Interoperability Implementation Strategy, different issues have been addressed such as the Once-Only principle, a more efficient and standardised planning of information solutions data models, and a greater degree of interoperability between information systems in the public administration.

Resilience and Recovery Plan 2021-2026

As other members of the European Union, Slovenia has adopted a Resilience and Recovery Plan, focusing on the component of the digital transformation of the public sector and public administration during the period 2021-2026. It will provide an appropriate response to the critical shortcomings in the public sector digitisation that emerged (even more clearly) during the COVID-19 epidemic, such as: insufficient range, availability or quality of eServices, insufficient and outdated IT equipment, insufficient network connection capacity and IT infrastructure, which turned out to be particularly problematic in the light of the increased volume of digital business. Digital transformation will be mostly supported through the following projects:

- Creation of a new generation of IT infrastructure;
- Development of new dynamic e-services (SDG e-services; e-ID card, Mobile e-identity, Data spaces and emerging technologies, eSlovenia, mSlovenija);
- Modernisation of the customer support system;
- Development and implementation of business information architecture mechanisms and standards in government and public informatics (BIA); and
- Strengthening and enhancing cyber security.

National Interoperability Framework

The National Interoperability Framework (NIO) Portal as a conceptual model of interoperability is a basic tool for publishing, monitoring, and using interoperability products. The Slovenian National Interoperability Framework represents a metadata framework for the coordinated development of public sector eServices. On the NIO Portal, system specifications and documentation are available together with standards, recommendations, interoperability products, data access services, organisational rules, interoperability infrastructure and building blocks. The NIO's Editorial Board, a group of IT experts from various fields, are involved in the publication and monitoring of interoperability products working process on the NIO Portal. The editorial team tied to the implementation of an individual field an agreed set of contents for the efficient and effective joint implementation of interoperable public services. The remit of the NIO Editorial Board includes the national interoperability framework, education, awareness raising activities, the promotion of the NIO with wide international collaboration and the cooperation in the field of interoperability and integrated digital solutions. An important and continuous task of the Board is to raise awareness on the importance of interoperability and the establishment of DIF, NIF and EIF.

2.3 Key enablers

2.3.1 Open Data, Reusability and Access to Public Information

new International Open Data Charter

In 2022, Slovenia joined the international Open Data Charter and thus adopted the principles of the wider open data community. The goal is to enhance the cooperation with all stakeholders from the public sector to researchers and start-ups, so that citizens and businesses can benefit from that. Also, in 2023, the Slovenian National Assembly adopted a law to ratify the Council of Europe Convention on access to public documents. The ratification of the Convention, which is the only international treaty regarding the access to public information, will coincide with the 20th anniversary of the adoption of the first Access to Public Information Law in Slovenia.

2.3.2 eID and Trust Services

Digital Public Services Strategy 2030

Three strategic priorities have been identified for the Digital Public Services 2030, which represent digital targets at the highest level and are also aligned with the strategic context of the European Union. Two of the three is that by 2030 at least 80% of key public services that are digitally accessible will also be performed digitally; and at least 80% of users of public services will use their digital identity.

2.3.3 Security Aspects

Cybersecurity Strategy

The current Cybersecurity Strategy was the first step in establishing the framework for ensuring national cybersecurity on a higher level. The Republic of Slovenia will provide an open, safe and secure cyberspace, which will serve as the basis for smooth functioning of the infrastructure relevant for State authorities and the economy, as well as the lives of all citizens. Rapid development of ICTs in a modern society is beneficial on one hand but, on the other hand, it determines the emergence of new and more technologically sophisticated cyber threats. There is a growing trend in using ICT for political, economic, and military pre-eminence. Cyber-attacks have become a major security threat to the contemporary world. Consequently, cybersecurity has become an important and integral part of national security.

With the adoption of the Information Security Act, the real basis for strengthening the national cybersecurity system was set. The Information Security Administration was established within the Ministry of Public Administration with a clear mission of increasing resilience to cyber threats. With the Information Security Act the role of a national CSIRT was taken over by a well-established SI-CERT and a new State Administration CSIRT (Government CERT) was established too. With all these new developments, achieving the goals set by the Cybersecurity Strategy has become realistic. In March 2021, the Slovenian government adopted the National Cyber Incident Response Plan (NCIRP), prepared by the Information Security Administration, which unifies cyber incident management procedures and provides guidelines for a coordinated response for all involved stakeholders. The NCIRP makes operational the procedures set out in the Information Security Act.

In July 2021, the Government Information Security Office was established. The new office, which operates as an independent government office, is the successor of the Information Security Administration of the Republic of Slovenia. The Act on Amendments and Additions to the Act on Information Security (ZInfV-B) entered into force on 29 April 2023 and thus transposed the NIS 2 Directive into national law.

2.3.4 Interconnection of Base Registries

No political communication has been adopted in this field to date.

2.3.5 eProcurement

No political communication has been adopted in this field to date.

2.4 Domain-specific Political Communications

new Digital Health Strategy

The Strategy for Digitalisation of the Slovenian Health System 2022–2027 is the new digital health strategy that has been developed within the project 'eHealth for a Heathier Society' under the framework of the structural reform programme (SRSP) and published in January 2023. The strategy is supported by an investment plan and outlines the priorities and objectives for the period 2022–2027. The main focus areas are: (i) a unified Electronic Health Record, (ii) telemedicine, and (iii) ensuring the availability of health data for both primary and secondary use.

2.5 Innovative Technologies

2.5.1 Artificial Intelligence (AI)

National Strategy for Artificial Intelligence

Slovenia adopted the National Programme for AI (NpAI) in May 2021. The programme is designed around the concept of 'innovation diffusion lifecycle', meaning that its main vision is to convey more than 40 years of research, knowledge and experiences in AI into real, trustworthy and ethical AI solutions used in business, public sector and government. In order to achieve this, NpAI sets ten strategic goals that include; support to research and innovation projects, establishment of proper data and computational infrastructure and, finally, support for reference implementation projects in six priority areas (health, industry 4.0, public administration, language technologies, sustainable food production and environment, and spatial planning). The National programme for AI represents the main strategic policy instrument to support activities - from research and innovation to AI uptake - in the period 2021–2025. NpAI foresees a special governance structure led by the Ministry of Digital Transformation that will provide guidance and support decision making with respect to the implementation in a multi-sectorial and inter-ministerial setup of all the measures set out in the NpAI. External representatives of stakeholders and experts have also been included in order to steer implementation and changes in the future years based on technology, market and policy-based developments. The NpAI provides the policy framework and concrete support to the main phases of the innovation cycle from research and deployment to uptake activities but, with respect to the latter, measures are limited only to reference implementation projects where there is proper knowledge and capacity available and large impact envisaged. With this in mind NpUI defines six priority areas, which are listed above. Larger scale uptakes will be left to sectorial strategies and actions.

International Research Centre on Artificial Intelligence under the Auspices of UNESCO

The Slovenian government's proposal to establish an International Research Centre on Artificial Intelligence under the auspices of UNESCO (IRCAI) was confirmed and adopted during the 40th session of the UNESCO General Conference in November 2019 – unanimously and with huge support from all UNESCO Member States. After a long ratification process for the agreement due to the COVID-19 crisis, the IRCAI was formally and officially established on 2 October 2020.

The purpose of IRCAI is to provide an open and transparent environment that, in addition to research, technology and discussions in the field of artificial intelligence, will provide stakeholders worldwide with public policy support for the development of artificial intelligence guidelines and action plans. IRCAI provides governments, (international) organisations, legal entities, other institutions and the general public with appropriate professional support for systemic and strategic solutions in the deployment of artificial intelligence in various fields with a focus on applications to the UN's Sustainable Development Goals. It assists in developing and expanding capabilities in a variety of ways, including helping to set up ancillary research centres around the world, developing training and global awareness programmes and creating a network for research and knowledge exchange.

AI4SI

AI4SI is a non-profit think tank and multistakeholder platform of representatives from supply & demand side, NGOs, research and development and government that aims to promote, coordinate and organize efficient knowledge transfer from AI research to implementation in companies and organizations.

2.5.2 Distributed Ledger Technologies

Blockchain Action Plan

Slovenia follows the Blockchain Action Plan to lay the groundwork for an accelerated use of blockchain technologies. The main activities foreseen in the action plan were:

- Identifying the relevant legislation for the implementation of blockchain/DLT solutions (tax legislation, AML – Anti Money Laundering, GDPR – General Data Protection Regulation, Financial Regulation of the Securities and Requirements for Security Tokens);
- Identifying the relevant (vertical/horizontal) technological areas to determine the testing environment (a 'sandbox');
- Strengthening the implementation of blockchain/DLT solutions (together with other Industry 4.0 technologies: IoT, AI, AR, VR, mixed reality, machine learning) in the demo/pilot projects developed for nine smart specialisation strategy areas (including: smart cities and communities, smart home, sustainable tourism, sustainable materials, smart factories – factories of the future, smart mobility, circular economy, health and medicine, and sustainable food supply);
- Creating the regulatory framework for the introduction of blockchain/DLT solutions and ensuring the legal basis to start or develop a business based on blockchain/DLT in Slovenia; and
- Defining the relevant educational/training content and programmes, and the steps to introduce knowledge into companies, supporting environments and the education system (considering the strong concentration of knowledge on blockchain/DLT in Slovenia).

Use cases are implemented by the blockchain ecosystem in Slovenia, which is represented by the Blockchain Think Tank and other communities. The main purpose of Blockchain Think Tank Slovenia, under the Slovenian Ministry of Economic Development and Technology, is to act as a bridge between the public and the private sector and serve as a platform for gathering all possible knowledge on blockchain technology in one place. With the European Infrastructure for Blockchain Services (EABS) hub, an appropriate test infrastructure for blockchains will be put in place, contributing to more reliable cross-border, national and local services.

2.5.3 Big Data

No political communication has been adopted in this field to date.

2.5.4 Cloud Computing

No political communication has been adopted in this field to date.

2.5.5 Internet of Things (IoT)

Internet of Things Development

In the Digital Slovenia 2030 Strategy, the Internet of Things is identified as a technological priority. The concept of IoT is to connect devices with built-in sensors to the internet and allow the devices to communicate with one another and exchange data, based on which they can make decisions and function. In terms of content, the priorities of the strategy are smart cities and communities. The aim of using IoT technologies in towns and communities is to develop a connected intelligence system which will support economic activities, increase the population's satisfaction with public services, contribute to public security, sustainable management of the environment, more efficient urban governance and tackling other challenges that towns and communities face.

In addition, the National Programme for AI envisaged the establishment of a IoT platform for AI in its strategic goal 5 – Establishing proper technical infrastructure for AI.

2.5.6 High-performance Computing

No political communication has been adopted in this field to date.

2.5.7 High-speed Broadband Connectivity

new National Broadband Plan

The government of the Republic of Slovenia adopted the Plan for the Development of Gigabit Infrastructure until 2030 (hereinafter: the plan) on 26 August 2022. It is a strategic plan for the establishment of - and partly also for promoting the use of - infrastructure that will enable gigabit connectivity for all households and the main promoters of social economic development, as well as continuous coverage with the 5G network of all populated areas and main ground traffic routes. The plan is fully aligned with the fundamental digital goals of the European Union in the field of connectivity. The plan includes goals and necessary measures in the field of gigabit infrastructure development, to make Slovenia one of the most digitally advanced countries by 2030 and to ensure gigabit connectivity for all rural and urban households and 5G network coverage for all populated areas. The main objectives are:

- Gigabit objectives for 2025 include 5G coverage for urban areas and the main terrestrial transport routes, Gigabit connectivity for schools, transport hubs, public services providers, and digitally intensive enterprises, at least 100 Mbps upgradable to 1 Gbps coverage for all citizens; and
- 2030 Digital Decade objectives, including gigabit connectivity for all households in rural and urban areas and 100 % 5G coverage for populated areas.

Recently, on 9 March 9 2023, the Slovene government adopted the supplement to the plan, aiming to define the indicators in more detail.

2.5.8 GovTech

No political communication has been adopted in this field to date.



3 Digital Public Administration Legislation

3.1 Specific Legislation on Digital Public Administration

State Administration Act

The State Administration Act (Official Gazette of the Republic of Slovenia No. 113/05 – official consolidated text, 89/07 – odl. US, 126/07 – ZUP-E, 48/09, 8/10 – ZUP-G, 8/12 – ZVRS-F, 21/12, 47/13, 12/14, 90/14, 51/16, 36/21, 82/21, 189/21, 153/22 and 18/23), adopted in 2005 and amended several times (last one in February 2023), authorises the Ministry of Digital Transformation to manage information and communication systems of the State administration, and to develop common information solutions and their technological, process and organisational compliance with the central information and communication system. The Ministry of Digital Transformation provides central information and communication system services, electronic support for administrative and other procedures and the development of joint information solutions for the electronic operations of State bodies, public agencies, local community bodies and bearers of public authorities.

General Administrative Procedure Act

The General Administrative Procedure Act (Official Gazette of the Republic of Slovenia, No. 24/2006-ZUP-UPB2, 105/06-ZUS-1, 126/07, 65/08, 8/10, 82/13, 175/20 – ZIUOPDVE - Act on Epidemic Intervention Measures and 3/22 – ZDeb), adopted in 1999 and amended several times, provides the general legal basis for all administrative proceedings: Administration-to-Citizen (A2C) and Administration-to-Business (A2B) interactions together with a major portion of Administration-to-Administration (A2A) relations. One of the main provisions of the act and its Decree on Administrative Operations (Official Gazette of the Republic of Slovenia, No. 9/18, 14/20, 167/20, 172/21, 68/22, 89/22 and 135/22) allow for a two-way electronic communication between public administration and citizens. Prior to the enforcement of this provision, citizens could submit digitally signed eDocuments to the eGovernment State Portal, but the administration would only respond in writing via regular mail. Official electronic answers or eDeliveries, acquired legal status after the 2004 amendment of the act. The organisational and technical setup for eDeliveries was established at the end of 2020.

new De-bureaucratization Act

The De-bureaucratization Act was adopted on 27 December 2021 with the aim to reduce administrative burdens. The act repeals over 200 laws and regulations that are no longer applicable. It also determined the termination of the application of 18 federal (Yugoslav) laws that were in force in the Republic of Slovenia at the time of independence.

Since 22 July 2022, citizens have the opportunity to communicate to the competent authority (administrative unit, embassy) via the e-mail address and mobile phone number, which will be kept in the Central Population Register. The requirement to certify electronically-signed decisions has been abolished. A register of legal acts of local communities will be established, which will contain information on published regulations and other acts of local communities. The register will be published in the Official Gazette's website and will be available free of charge.

3.2 Interoperability

Infrastructure for Spatial Information Act

The Infrastructure for Spatial Information Act defines the interoperability of spatial datasets and services in its Articles 8, 10, 11 and 12. It defines interoperability as the ability to combine spatial datasets for services to interact, without any manual intervention, in such a way that the result is coherent, and the added value of the spatial data sets and services is enhanced. The interoperability of spatial data sets and spatial data services shall be provided by the data and service providers. The interoperability shall ensure links between different spatial data that refer to the same location, and between the same spatial data that refer to the same spatial object when represented at different scales. Information for the implementation and provision of the interoperability of spatial data sets and services, including data, codes and technical

arrangements, shall be available free of charge to public law entities and third parties through the Spatial Data Geoportal.

3.3 Key Enablers

3.3.1 Open Data, Reusability and Access to Public Information

new Access to Public Information Act

The legal basis for the proactive publication of information and data on the web by public sector bodies was provided for by the Access to Public Information Act (Official Gazette of the Republic of Slovenia No. 51/06, 117/06 - ZDavP-2, 23/14, 50/14, 19/15, 102/15 and 7/18). The act regulates the open and transparent functioning of the public sector and the reuse of public sector information. In principle it provides that all generally accessible public information is reusable (in line with the reuse right from the PSI Directive). The law places the emphasis on the online publication of entire databases/public sector open data (i.e. data in open, machine-readable formats for further reuse by citizens, non-governmental organisations, media, etc.). Regarding public sector databases, special attention is paid to database management by public administration bodies and to the connectivity between databases to provide simple and straightforward data access. For this purpose the metadata are defined by the Decree on the Delivery and Reuse of Public Information and published the Manual on Opening Up PSI. Apart from the legal framework, several activities have been announced in this field (hackathons, guidelines, renewal of the Open Data portal, etc.). In addition, it is important to emphasise that in principle all documents (electronic or not) produced by public bodies are publicly available based on a request after a legal review by the institution. The Information Commissioner acts as a strong supervisory body whose decisions are fully binding upon public sector institutions. In 2022 the amendments to the Access to Public Information Act (Official Gazette of the Republic of Slovenia, No. 141/22) were adopted for the remaining implementation of the EU Open Data Directive, namely, to enable easy re-use of high value datasets via API and bulk download. Consequently, also the government decree has been amended (Official Gazette of the Republic of Slovenia, No. 146/22), listing the datasets that are of particularly high value for the society and/or economy. The National Assembly adopted the law on ratification of the Council of Europe Convention on Access to Official Documents.

Accessibility of Websites and Mobile Applications Act

The Accessibility of Websites and Mobile Applications Act regulates the measures to ensure the accessibility of public sector websites and mobile applications, providing accessibility for all users, in particular for those with disabilities (sensory or mobility impairment and mental disorders). The act is only available in Slovene. Additional information is available via the NIO Portal.

Promoting Digital Inclusion Act

The Promoting Digital Inclusion Act (Official Gazette of the Republic of Slovenia No. 35/22) aims to:

- Raise awareness on the benefits of using digital tools for the life of an individual and society as a whole;
- Raise interest in technical knowledge, especially in the field of digital technologies (computer programming, robotics, artificial intelligence, etc.), and promote a responsible and safe use of digital technologies and their development;
- Have the population acquire and raise their level of basic digital skills so that by 2028 at least 80% of the population in the Republic of Slovenia aged between 16 and 74 have basic digital skills;
- Raise the competences to the higher proficiency levels, increase interest in secondary, tertiary and higher education programmes featuring special digital skills and reduce the gender gap in this area; and
- Promote entrepreneurship in relation to digital skills.

3.3.2 eID and Trust Services

Electronic Identification and Trust Services Act

The national Law on Electronic Identification and Trust Services was adopted in July 2021. It aligns national legislation with Regulation (EU) 910/2014 on electronic identification and trust services for electronic transactions in the internal market (eIDAS Regulation). It introduces an electronic identity that can be issued through different electronic identification means.

The Decree on the Definition of Electronic Identification Means and the Use of a Central Authentication and Electronic Signature Service, adopted in March 2022, defines the electronic identification means and the use of the Central Authentication and Electronic Signature Service. The decree defines the electronic identification means associated with an electronic identity granted by the Republic of Slovenia as:

- Electronic identification means of the assurance level high on the identity card;
- Electronic identification means of the assurance level low on the identity card;
- Virtual electronic identification means of the assurance level substantial; and Virtual electronic identification means of the assurance level low (this has not yet been implemented).

The activities regulated by the eIDAS Regulation in the area of trust services, such as the certification of qualified trust service providers, are regularly performed. Currently, all activities in the area of trust services are operational and aligned with the requirements of the eIDAS Regulation.

Renewal of the Identity Card Act

In view of the renewal of the Identity Card Act, pursuant to Regulation (EU) 2019/1157 of the European Parliament and of the Council of 20 June 2019 on strengthening the security of identity cards of Union citizens and of residence documents issued to Union citizens and their family members exercising their right of free movement, it was decided that Slovenia would introduce new identity cards according to the above regulation. The identity card also serves as an eID card. The new Identity Card Act has already been adopted, whereas new legislation on eIdentities and trust services was adopted at the end of 2021.

3.3.3 Security Aspects

Information Security Act

Following Directive (EU) 2016/1148 (NIS Directive), the Information Security Act regulates information security and the measures for achieving a high level of security of network and information systems in the Republic of Slovenia, which are crucial for the smooth functioning of the State in any security situation, and which provide essential services for the preservation of key societal and economic activities. It stipulates the minimum security requirements and the incidents notification requirements for the subjects obliged to comply with the Act. Furthermore, it regulates the competences, duties, organisation and operation of the National Competent Authority for Information Security and the Single Point of Contact (which are both part of the Information Security Administration), the National Cybersecurity Incident Response Centre (National CSIRT) and the State Administration Cybersecurity Incident Response Centre (State Administration CSIRT). In June 2021, the Act Amending the Information Security Act was adopted, which foresees a new competent cybersecurity authority. The Information Security Administration of the Republic of Slovenia as a body within the Ministry of Public Administration, which was the competent national authority in the field of information security under the Information Security Act, was transformed into the Government Information Security Office as an independent government office. With this legislative change the new office also assumed the role of the National Cybersecurity Certification Authority and incorporated the Government CERT which previously operated within the Ministry of Public Administration. The Act on Amendments and Additions to the Act on Information Security (ZInfV-B) entered into force on 29 April 2023 and thus transposed the NIS 2 Directive into national law.

General Data Protection Regulation

The General Data Protection Regulation (GDPR) was adopted on 27 April 2016 and entered into force on 25 May 2018. It is legally binding in its entirety and directly applicable in all Member States, including the Republic of Slovenia.

new Personal Data Protection Act

In 2022, the Personal Data Protection Act (Official Gazette of the Republic of Slovenia No. 163/22) entered into force, which empowered the Information Commissioner of the Republic of Slovenia (ICRS) to fully implement EU data protection requirements, including imposing sanctions as provided by GDPR.

In 2020, the Act on the Protection of Personal Data in the Area of Treatment of Criminal Offences (Official Gazette of the Republic of Slovenia No. 170/20) entered into force, which implemented the Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA.

With the named legislative acts being adopted, the core of EU data protection regulatory framework has been implemented. ICRS has the mandate to exercise tasks and competences as the national supervisory authority.

3.3.4 Interconnection of Base Registries

Slovenian Business Register

The Business Register of Slovenia Act regulates many aspects related to the management and maintenance of the Slovenian Business Register. It defines the units of the register, its identification, the obligatory use of the content of the register, how to obtain data for the management of the register and the storage of documents. Other relevant pieces of legislation are the Decree on keeping and maintaining the Slovenian Business Register, the Fees for Reuse of Public Information, the Slovenian Business Register and the Instruction on the Type and Extent of Data for a Particular Legal Form Unit of the Business Register of Slovenia Unit.

Land Register Act

The Land Register Act regulates the concepts to be used, and in particular the information system to support the digitalisation of the Land Register and the relevant manager, the property data and legal facts to be included in the register, and the basis for accountability. Other relevant legislation includes the Rules on the Land Register, the Decree on the Forms of Registration in the Land Register, the Rules on Electronic Exchange of Data Between Land Register and Cadastre (Official Gazette, No. 58/03, 34/08 - ZST-1, 45/08, 59/90 and 25/11), among others. The Rules on the Land Register (amendment 13/2021) have equalized electronic business in land affairs with electronic business in judicial civil matters.

Spatial Data Information Act

The Infrastructure for Spatial Information Act regulates the establishment, management and maintenance of the infrastructure for spatial information in Slovenia as an integral part of the European infrastructure for spatial information. The act establishes and regulates the operation of a metadata system, provides for network services to access the data and their use, foresees the coordination in establishing the infrastructure for spatial information (ISI) and the use of this infrastructure. It also defines the individual public entities responsible for establishing, managing and using spatial data and services and their tasks. The tasks of a body in charge of national SDI are also defined. The latter must be provided as an integral part of the Slovenian and European infrastructure for spatial information.

Central Population Register

The Register is the central database of all citizens of the Republic of Slovenia, regardless of whether they reside in the territory of Slovenia or abroad, of all foreigners who have a residence status in the Republic of Slovenia and of all foreigners who do not have a permanent or temporary

residence permit, but who have certain rights or obligations in the field of pension and disability insurance, taxes, humanitarian reasons or other areas, if so provided by law. The main data sources for the central population register are the Civil Registry, the Permanent Population Register and the Register of Foreigners. The Central Population Register is a distribution database in which population data are centrally collected, processed, stored and used in order to monitor the situation and trends in the population for the needs of State authorities and other users. Such monitoring is necessary for the performance of prescribed tasks, for the management of databases on individuals and for the purpose of carrying out statistical, socio-economic and other surveys, as prescribed by law.

Real Estate Cadastre

The Real Estate Cadastre Act was published in the Official Gazette of the Republic of Slovenia, No. 54/21, on 9 April 2021 and was applied on 4 April 2022. The act defines Real Estate Cadastre as an official record of data on the position, shapes, physical and other characteristics of the parcels, buildings and parts thereof, which will show the actual condition of the real estate. Current maintenance of the three real estate records (Land Cadastre, Building Cadastre and Real Estate Register), kept by the same body, has shown the need to establish a modern information system for recording real estate data in one record - the Real Estate Cadastre. The entry of all data on real estate in the same record, with the appropriate control system, eliminates the risk of discrepancies and allows greater consistency of the data. All the entered data are kept permanently. In the Real Estate Cadastre, there are also data on cadastral municipalities, actual use of the land, areas of credit ratings of the land and the layer of temporary entries (building rights and data on the area of real easement or land registry decision).

Vehicle Registry

The Motor Vehicle Act sets out the conditions for the placement of motor vehicles and trailers on the market, their registration and operation on the road network. Regarding the performance of agricultural or forestry work, the registry sets out the conditions for carrying out such tasks as the technical services, the registration of organisations managing databases on vehicles, and the monitoring of the implementation of this law. The Rules on the Registration of Motor Vehicles and trailers set out the registration conditions to be met, the procedures for the registration of motor vehicles and trailers, the issuance and revalidation of transport permits, the deregistration of vehicles, the change of vehicle owner or user data, the issuance of permits for test drives, record-keeping obligations and the storage of documents and evidence.

3.3.5 eProcurement

Public Procurement Act

On 1 April 2016, a Public Procurement Act entered into force, which transposed Directive 2014/24/EU and Directive 2014/25/EU. On 1 November 2018, an amendment to the Public Procurement Act came in force. Its main objective was to further emphasise the importance of social aspects in public procurement procedures and public contract execution. The second amendment to the Public Procurement Act is in use since 1 January 2022. Its main objective is making the procedure simpler and more transparent.

The Public Procurement Act lays down mandatory actions required of contracting authorities and tenderers in awarding public supply contracts, public service contracts and public works contracts. Among other provisions, the act sets out rules on mandatory publication of procurement notices in the Public Procurement Portal, on mandatory electronic submission and electronic communication in procurement procedures, on electronic verification of tenderers via official documents the information system eDossier, on the dynamic purchasing system and electronic auctions, thus also laying the groundwork for a public, State-developed eProcurement system called e-JN Information System.

Furthermore, the 2017 amendment to the Legal Protection in Public Procurement Procedures Act introduced an electronic information system for legal protection procedures in public procurement, i.e. the eRevision Portal. The eRevision Portal was established in September 2019 and enables the exchange of information and documents between contracting authorities, selected tenderers, the National Review Commission and other participants in the appeal proceedings. It communicates with the Public Procurement Portal to allow a smooth flow of information and documentation. This significantly reduced the duration of the procedure and the administrative

burdens and costs for the parties involved. The use of this portal is mandatory from 1 January 2021.

eInvoicing Legislation

In Slovenia, the competent authority with purview on eInvoicing is the Public Payments Administration of the Republic of Slovenia, attached to the Ministry of Finance.

Since 1 January 2015, public sector institutions have begun receiving electronic invoices for any goods and services. This function was based on the Provision of Payment Services to Budget Users Act (ZOPSPU-1).

The Public Payments Administration serves as a single entry and exit point for the exchange of eInvoices between administrations, and between public administration and external entities as well.

3.4 Domain-specific Legislation

Amendment to the Healthcare Databases Act

By amending the Healthcare Databases Act in 2015, legal ground was provided for the eHealth system, enabling interoperability and the exchange of health data on a national level. Ever since, considerable progress has been made in terms of development, availability and use of eHealth. In 2020, the act has been amended to respond to the challenges of the COVID-19 pandemic and the related data-processing requirements. The amendment provided legal ground for comprehensive digitalisation of communicable disease surveillance. Moreover, it facilitated the processing of health records for all persons receiving medical treatment in Slovenia, irrespective of their nationality, by enabling the cross-border exchange of healthcare records within the Central Registry of Patient Data (CRPD). Further amendments in 2021 introduced extensions of lawful data processing (e.g. legal base for Health Insurance Institute to access Central Registry of Patient Data).

Protection of Documents, Archives and Archival Institutions Act

The Protection of Documents, Archives and Archival Institutions Act and the accompanying Regulation on Documents and Archives Protection were both passed in 2006 to regulate the management of electronic content. The act states that all electronic records, including digitalised documents, have full legal status provided they comply with certain technical conditions. The accompanying regulation governs the activities and internal rules for individuals to keep documents and/or archives, the storage of such materials in physical and digital forms, the general conditions, the registration and accreditation of digital storage equipment and services, the selection and transfer of archives to public archival institutions, the processing and keeping of registries of archives, the protection of film and private archives, the use of archives in archival institutions and the work of the Archives Commission. The law also contains provisions regarding the long-term validity of eSignatures. This law eliminated the obligation of certifying internal rules for accreditation. It granted companies and other private organisations the power to decide, autonomously and without any State interference, the best method to store digital documents, leaving them the choice of the solutions and technologies to adopt.

Amendments to the Tax Procedure Act

With the 2021 amendments to the Tax Procedure Act, legal ground was provided for online public auctions.

3.5 Innovative technologies

3.5.1 Artificial Intelligence (AI)

No legislation has been adopted in this field to date.

3.5.2 Distributed ledger technologies

No legislation has been adopted in this field to date.

3.5.3 Big data

No legislation has been adopted in this field to date.

3.5.4 Cloud computing

No legislation has been adopted in this field to date.

3.5.5 Internet of Things (IoT)

No legislation has been adopted in this field to date.

3.5.6 High-performance computing

No legislation has been adopted in this field to date.

3.5.7 High-speed broadband connectivity

new Electronic Communications Act

The field of electronic communications in the Republic of Slovenia is regulated by the new Electronic Communications Act (Official Gazette of the Republic of Slovenia No. 130/22; ZEKom-2/ECA-2), which was adopted in October 2022 and is valid from 10 November 2022 onwards. The new law addresses the shortcomings of ZeKOM-1 and transposes the Directive on the European Electronic Communications Code into the legislation of the Republic of Slovenia. The main objectives of the act are to promote investment in high-speed broadband networks, promote competitiveness, develop the internal market and protect the interests of end-users.

3.5.8 GovTech

No legislation has been adopted in this field to date.



4 Digital Public Administration Infrastructure

4.1 Platforms and Applications

4.1.1 National Platforms and Applications

eUprava Portal for Citizens

The eGovernment Portal for Citizens eUprava is the first portal that enables its users to authenticate and eSign the applications with mobile phones. This functionality is based on the integration of SI-PASS (the authentication and eSignature service) that, since April 2018, also offers an authentication and eSignature mobile service called smsPASS (see below for more info on SI-PASS and smsPASS). Since November 2020, the portal has been integrated with the new central solution for eDelivery SI-CeV. The users can activate their secure mailbox within their My e-Government personal space to receive official documents according to the administrative procedure legislation from more than 100 public institutions. In 2021, the possibility has been introduced to authenticate on the portal using foreign certificates via eIDAS mechanisms. In 2020-2021, new electronic services for municipalities were published on the portal, both on the Portal for Citizens eUprava and on the Business Portal SPOT. During the COVID-19 crisis, some successful new electronic applications were offered, also without eAuthentication, to increase the number of possible users (e.g. financial aid for students, residence registrations). The number of eForms sent has substantially increased in comparison to previous years (+100%). After the pandemic users have become more accustomed to doing business with the State electronically. Thus, our daily visitors are on average 15% higher than before. The higher usage is also reflected in a significantly higher number of submitted e-applications than before the pandemic. Furthermore, the number of new services is constantly increasing.

MFERAC Personal Portal

The MFERAC Personal Portal is a website intended for employees in the State administration (ministries, government departments, administrative units, judicial bodies, public economic institutions, local communities and other State bodies) to receive ePayroll and other information related to the employment relationship, using the application for personnel management and calculation of labour costs of public finance institutions of the Republic of Slovenia. The MFERAC was developed by the Ministry of Finance as support for the implementation of the national budget by means of a single accounting system.

SPOT Portal for Businesses

The One-Stop Shop Business Portal SPOT (formerly named eVEM) is the government portal for companies, sole traders, entrepreneurs and future entrepreneurs, whose main purpose is to enable users to carry out public administration operations easily and quickly. Through the SPOT portal, businesses can use electronic services to establish a company and carry out other obligatory or frequent procedures, either at start-up or later (submission of forms for social insurance registration, declaration of changes to information on family members, notification of needs for workers, declaration of tax information, etc.). Users can carry out procedures independently online, using a valid digital certificate or, for certain procedures, they would need to visit one of the SPOT points or a public notary. The main advantages of the SPOT portal are that it enables a free-of-charge sole trader registration usually within one day (in the past it took seven days) and the registration of a company with limited liabilities within three days (in the past it took more than 60 days). It also enables several important eServices. The majority of services carried out via the SPOT portal or the SPOT points are free of charge. New services are constantly developed for SPOT. In terms of development of new services, relevant stakeholders are being involved and the principles of interoperability are followed. The development is carried out with the cooperation of different governmental bodies. It includes the connection of different IT systems into the eService of SPOT, aiming at reusing already available data from different registries or systems and following the Once-Only principle, where possible. In 2020, an important new functionality - the electronic sick leave - was introduced on the portal, which significantly reduced the administrative burden. The estimated cost savings for all participating stakeholders are EUR 11.5 million yearly. In 2020-2021, new electronic services for municipalities were published on the portal, both on the Portal for Citizens eUprava and on the Business Portal SPOT.

In addition, the portal was visually redesigned in January 2021 to harmonise the user experience and, at the same time, improve its stability.

GOV.SI Portal

The GOV.SI Portal is the central website for easy access to comprehensive information on the organisation and functioning of the State administration. Currently, GOV.SI is hosting web pages of 122 government bodies. With this central platform, it was possible to quickly establish an efficient and central point of public information, instructions, data etc.

NIO - National Interoperability Framework Portal

The National Interoperability Framework Portal (NIO) enables the Slovenian public administration to publish information on the achievements of its digital solutions at national level and beyond. The NIO Portal is part of the Slovenian National Interoperability Framework, consisting of different guidelines, standards, information and building blocks. It helps to improve the coordination of business processes and enables better compatibility and connectivity on the national and international levels. Many useful assets are published and explained on the NIO portal. Institutions can use them when designing their business processes and related information systems. Examples of this include building blocks for electronic data enquiries, trade, the Tray Module, the Asynchronous Module, and the Security Platform. If an institution wants to electronically gather data from data sources, it can use these building blocks and their functionalities. The owner of the information is always the institution which created them, regardless of whether the institution is part of the private sector or is a non-governmental organisation. The use of NIO assets and solutions reduces development and operating costs, and achieves improved coherence of information solutions, as well as compliance with the European Interoperability Framework and coordination with solutions at the international level (e.g., the Joinup Platform).

Stop the Bureaucracy Website

The Division for the Administrative Burden Reduction, Better Regulation and Quality in Public Administration at the Ministry of Public Administration actively implements the principles of better regulation to ensure that decision making is open and transparent and that governmental actions are based on evidence. Its purpose is to understand the impacts of decisions, to achieve greater competitiveness of Slovenian businesses and to increase the satisfaction of citizens who engage with the public administration. The Stop the Bureaucracy Portal plays a key role since it is a link between the administration that prepares regulations and controls their implementation and the public, who can find all information about the administrative measures for reducing administrative and legislative burden in one place. The video explaining in detail the process of submitting proposals to the portal can be found here. It is also tasked with overseeing the implementation of the adopted initiatives, which are then translated into actions with clearly defined objectives, deadlines and responsible institutions, and aggregated in the Single Document aimed at improving the legislative and business environment. The stakeholders can regularly monitor the state of measure implementation online. In order to monitor the elimination of the regulatory burden, ex-post evaluations of the impacts of measures included in the Single Document are carried out. All ex-post evaluations are available on the Stop the Bureaucracy Portal.

GeoHub-SI Portal

GeoHub-SI is a GIS platform for publishing spatial-related content. The data are published as GIS web services and included in GIS applications, intended for both the internal and the general public. Users can view, query and analyse spatial data using published applications. Data presented in the form of GIS web services can also be included in external applications. The GIS platform is intended for access to data, services and applications shared by State institutions. The infrastructural foundation of the GIS platform is the National Computer Cloud (DRO), provided by the Ministry of Public Administration. The Ministry is also responsible for the uniform development of common information solutions in the State administration, so all those State institutions that have the right to use services on the DRO can get access to publish on the GIS platform.

National Open Data Portal

The National Open Data Portal (OPSI) represents a single national website for publishing open data for the entire public sector and has a dual function. Firstly, it represents the central catalogue

of records and databases in the country; it is a central inventory of metadata from all records and databases managed by State authorities, municipalities and other public sector bodies. Secondly, it represents a single website for publishing data in open and machine-readable formats. The portal provides everyone with the right to a free and easy reuse of freely accessible data published in open (licence free) format for any purpose (i.e. for profit or not for profit). On the portal, all public sector bodies publish data by category. The goal was to establish the so-called Open Data Ecosystem based on the OPSI Portal, to encourage cooperation between all stakeholders concerned by the opening and/or reuse of data. In March 2020, the Slovenian government achieved its goal by establishing the OPSIHub. Slovenia ranks among the best countries in open data in various rankings and also ensures a high level of protection of the right of access to public information, with the aim of increasing citizens' participation and public authorities' accountability for good governance and the fight against corruption.

The eProcurement System e-JN

After the technological renovation at the end of 2018, the system combines functionalities that were originally developed as part of different stand-alone modules/applications (eSubmissions, eAuctions, eDossier, eCatalogue and eInternal procedures). The modules/applications are integrated into a comprehensive system on a single platform that enables conducting public procurement procedures and techniques and instruments for electronic and aggregated procurement in a fully electronic way. The eProcurement System e-JN was built with different levels of interoperability in mind. It was designed based on interoperable IT solutions (horizontal building blocks) for data distribution, authentication and identification. It also uses web services, provided by Slovenian agencies, especially the AJPES (Agency of the Republic of Slovenia for Public Legal Records and Related Services) which is responsible for the Slovenian Business register, the Official Public Gazette for eTendering and other institutions that provide data on economic operators. It is also connected with the office and financial system software that is widely used in public administration. The public State-developed eProcurement system called Information System e-JN is free of charge.

Remote Sessions

Since 2020, the National Assembly of the Republic of Slovenia amended its Rules of Procedure to introduce, given the situation related to COVID-19, the possibility of holding remote sessions of the National Assembly and of its working bodies, which enables deputies and other guests from a remote location to participate equally in the session, which otherwise takes place in the National Assembly. The users connect to the system via a secure SSL connection, but a VPN connection can also be used. Before the session starts, they connect to a specific website and authenticate themselves using a two-factor login method with login name, a PIN and a password in the form of an SMS message. The solution enables business-friendly registration, participation in the debate, observance of the parliamentary hours and casting of votes with immediate final results that take into account the specific type of voting (simple majority, absolute majority, etc.). From their remote location, users can see the room, monitor the parliamentary session and see the results of the votes. In the event of a timeout, the system automatically interrupts the remote speech (as in the courtroom), and the speech of the remote participant can also be interrupted by the chairperson. The source of the image from the hall is a directed image, which is otherwise broadcast by the national television RTV SLO. Participants who are in the hall can see the speaker from a distance on the big screens, and hear the speech through the sound system. There is practically no delay in the connection. The chair and the secretary monitor attendance and requests to speak from remote locations. Other guests invited to the meeting are provided with the same functionality, except for voting. The solution is used for plenary sessions, meetings of working bodies and the National Council.

zVEM Portal and Mobile Application

The zVEM Portal is a one-stop shop portal for patients. Patients can authenticate using a digital certificate and access the data that are stored on them in the eHealth databases. The zVEM Portal provides patients with full access to their healthcare documentation, referrals, appointments, prescriptions and records of dispensed medication. Using the eAppointment service, patients themselves can book the appointments for a number of medical services. The portal was enriched with newly developed eHealth services related to COVID-19 and patients can also access their EU Digital COVID Certificate. As of July 2021, a new mobile application zVEM is available. In addition to providing access to patient's eHealth records, the mobile application also includes a digital

wallet for storage of EU Digital COVID Certificates. There are 420 000 registered users on the patient portal and around 210 000 users on the mobile application.

new ZVEMplus Portal for Healthcare Professionals

zVEMplus is a new web portal for healthcare professionals that was developed within the national eHealth services in 2021. It was launched as a response to the COVID-19 pandemic and currently comprises applications for recording of COVID-19 test results, managing COVID-19 vaccination appointments and issuing COVID-19 certificates. In 2023, a tool has been launched to issue a personal medication card for patients. Application modules are available to public and private healthcare providers.

Moj ZZZS

Another health-related service is the patients' access to health insurance records held by the Health Insurance Institute of Slovenia. A registered user authenticated by a digital certificate can access their own records in eHealth databases.

Information on medical costs (reimbursement or direct settlement) is also available to patients on an online ZZZS portal. The Health Insurance Institute provides effective collection and distribution of public funds for healthcare. The rights arising from compulsory health insurance are the right to health care services and the right to other several financial benefits. The institute comprises ten regional units and 45 branch offices located all over Slovenia.

Portal PROSTOR

In addition to the renewed recording processes and new information solutions of the real estate cadastre, the Surveying and Mapping Authority of the Republic of Slovenia (SMA) also renewed the portal PROSTOR. Portal PROSTOR is an information and service portal intended for end users. It includes information in the field of basic geodetic system, real estate registration, mass real estate valuation, state boundaries, spatial units and house numbers, public infrastructure, as well as the topographic and cartographic system maintained by the SMA. It serves as the user's entry point to various services for downloading or processing the data (browsers, applications, publicly available online services, public view of real estate). All the data are free of charge.

Since the Slovenian Geoportal no longer exists, all the content is now also included in Portal Prostor. Here users can find a list of INSPIRE and other national spatial data sets and services, INSPIRE metadata, legislation related to INSPIRE requirements for establishing and operating interoperable National SDI and guidelines for technical interoperability. There is also link to Slovenian metadata which are connected to the European INSPIRE Geoportal.

eTax System

The Slovenian eTax System is a complete business solution combining different portals and applications (eDavki Portal, eCustoms Portal, Portal for Occasional Transport, SOAP Portal, Mobile application, etc.) with back-office integration. Since 2004, the system has allowed individuals and companies to log in using different electronic identifications. The system offers several eServices. The most important are: filing tax forms, declarations and returns, accessing data on tax liabilities of taxable persons, electronic signature of documents, transfer of authorisations, etc. In 2018, the eDavki Portal was updated to a user-friendly version with easy access to information and eServices. In 2019, the eTax System introduced a simplified way of signing documents without using a signature component and a qualified digital certificate. This enabled the eDavki Portal to be used on all operating systems and browsers as well as mobile devices. The development of this portal marked the start of the unification of the eDavki and the eCustoms portals. From 2019, individuals can use a new mobile app called eDavki that includes all eServices from the web portal eDavki plus additional eServices, such as a personalised calendar through which taxpayers receive notifications of their specific obligations and rights, pre-completed forms and assistance in completing forms, information on the settlement of social security contributions, etc. The eTax System is being regularly updated and expanded to improve existing eServices and offer brand new ones. In 2021, the majority of new eForms and eServices were related, mitigating and remedying the consequences of the COVID-19 pandemic. The security on the mobile application and web portal was also increased with the implementation of the two-factor authentication.

eCustoms Portal

The eCustoms Portal is Slovenia's single-entry point for customs and excise area. Through the eCustoms Portal users can register and lodge customs declarations and electronic excise documents. The portal consists of four main systems, which are: (i) import system; (ii) transit system; (iii) export system, and (iv) excise system. The eCustoms Portal also includes a lot of supporting systems and one of them is the EPOS application. It is the central module of the system and it accepts declarations, verifies digitally signed messages and provides routing. It implements PKI2 authentication and ensures non-repudiation via eSignature and time stamping. The systems in the eCustoms Portal are regularly updated according the requirements of the UCC (Union Customs Code) and the MASP (Multi-Annual Strategic Plan for Electronic Customs). The project, initiated by the European Commission, aims to replace paper-format customs procedures with EU-wide electronic procedures to create a more efficient and modern customs environment. Main upgrades have been made in 2021 when we launched the new import system and the new control import system.

new Public Payments Administration Portal

The Public Payments Administration operates and manages the dedicated infrastructure for payments and other related services. The Slovenian Payment System is a complete business solution combining a web portal with back-office integration. The system was developed in 2002 and allows government institutions to honour their payment obligations to individuals and companies as well as process tax payments online using a qualified certificate issued by any registered certification authority in the country. The entire process consists of using all SEPA compliant payment instruments (UJPnet), exchanging eInvoices (*eRačun*) and other structured electronic documents (*eDokument*) and validating data, sending all related responses and feedback (corresponding status), digitally signing and timestamping the exchanged data.

In November 2022, the Public Payments Administration technologically and visually renovated the UJPnet web application and ensured better transparency and, above all, easier accessibility for UJPnet users to the content they use most often. Since the implementation of the instant payments service in 2020, Public Payments Administration has been successfully receiving inflows from instant payments to sub-accounts of budget users continuously 24 hours a day, every day of the year. From October 2021 onwards, the Public Payments Administration is also successfully receiving cross-border immediate payments. Since 2019, the Public Payments Administration has been enabling the mobile application called mUJPnet that budget users can download for free from the iTunes Store (Apple iOS) and the Play Store (Google Android). The mUJPnet mobile application provides budget users with easy and fast access to payment and other services via tablets and smartphones. This enables budget users to make payment transactions from different locations faster and more easily at different times and at any time (24/7) and to keep track of their status. The Public Payments Administration has been developing the web applications of the UJP eRačun Portal since 2015. The UJP eRacun Portal is intended for smaller issuers for preparing (manual entry of eInvoices) and sending eInvoices to budget users. The access to the UJP eRačun Portal is possible with a qualified digital certificate from one of the Slovenian issuers or through the SI-PASS system.

eSessions

The aim of the IT solution eSessions is to provide comprehensive support for decision making in the government. It is an extensive system which includes all State authorities and – indirectly – also the stakeholders. The eSessions service is organised into the following three segments by content:

- Internal: consideration of documents by government working bodies and decision making in the government;
- State authorities: in addition to the documents already considered, this segment includes documents currently waiting for government consideration. These documents are published in the government's information system in order to allow other ministries and government offices to submit any comments or proposals; and
- Public: publication of non-confidential government decisions and documents. This content is published on the government's website and is intended for the interested public, in particular non-governmental and other civil society organisations.

A special segment of the system is used as IT support for confidential government decisions, which is in a separate information and communication structure and meets strict security requirements for the treatment of classified information.

The eSessions service facilitates the management of a great number of documents and remote voting; it also enables electronic sessions and provides a strong support for the provision of information to various target user groups and the general public.

EU Portal

The EU Portal is part of the governmental single information system and serves as a basic information tool for the adoption, recording, classification and publication of documents which are exchanged between the Republic of Slovenia and the European Union. All documents received from the Council of the EU are entered in the portal. Dossiers and related documents are classified according to the competent authorities (ministries and government offices) and working groups. The classification of documents corresponds to the document classification in the EuroVoc thesaurus which is used by the EU institutions. The system is also used for the preparation of the government positions on legislative proposals and other EU acts. The reports of the Slovenian representatives from the meetings of the Council of the EU and its working bodies are also recorded in the portal. The EU.SI portal is managed by the Secretariat General and the Ministry of Foreign Affairs in accordance with the government's Rules of Procedure. A special segment of the EU portal is accredited for handling classified information.

Digital Library of Slovenia

The Digital Library of Slovenia (DLib.si) is a web portal developed in 2007 by the National and University Library (NUK) in cooperation with several cultural, educational and research institutions, including numerous libraries throughout Slovenia. The portal provides free access to digitised knowledge and cultural material – journals, books, manuscripts, maps, photographs, posters, music, and reference material.

eJR IT Support for Public Tendering

The eJR online application provides IT support in the processing of public tenders. It supports the procedures of submitting and processing of applicants' documents. It assists professionals with processing and evaluating applications, and preparing administrative acts, as for instance a call for amending an application, decision or agreement. The eJR IT support for implementing public tenders provides for an efficient and rationalised operation of public administration. It provides an IT service for citizens, corporate entities and employees of public administration. It offers IT support for the whole procedure, from the preparation and publication of a tender to the evaluation of applications and allocation of funds.

Legal Information System

The Legal Information System (PISRS) is a single national legislative portal offering to the public the information on adopted laws, regulations and other legal acts free of charge, including EU and national case law, consolidated texts, and other information with significant impact on the application of national law. In addition to efficient and quick search through all sources of law, users can easily monitor the process of planning and adopting laws and regulations. Both the professional public (notaries, lawyers, civil servants, etc.) and the citizens need to be acquainted with applicable legislation and related case law, government legislative proposals, status of ongoing legislative procedures, as well as with their obligations and rights under EU law. To this end the portal integrates more than 15 registers and databases which are administered by different public authorities, several of them being available online solely via this portal. Since its launch in 2014, the portal has been gaining popularity in various end-user segments and is expected to keep gaining users attention as analytical figures increase by about 10% annually. To keep digital innovation on track as well as to maintain user-friendliness and responsiveness of the portal, the Government Office for Legislation launched in 2021 a project for redesigning the portal in terms of technical architecture, integrations of different data sources and user interface. The new portal is going to be relaunched in 2023 entailing many new advanced functionalities and services, including the possibility for the public to give its opinion on the legislation in force.

The Slovene Language Development in the Digital Environment

The Slovene Language Development in the Digital Environment - Language Resources and Technologies project, co-funded by the Operational Programme for the Implementation of the 2014-2020 European Cohesion Policy, closed in February 2023. The project was implemented by the University of Ljubljana and its consortium partners. Activities were carried out in the areas of maintenance and upgrading of corpora (language resources), speech technologies, semantic resources and technologies, machine translation, development of a terminology portal, and maintenance of an infrastructure centre for language resources and technologies. The contractors developed a corpus submission portal, upgraded language resources to support technologies, developed a machine translator for the Slovene-English language pair, a speech recognizer and synthesizer for Slovene, applications in the field of semantic technologies (e.g. summarizing tools, word sense recognition and question answering), a Slovene terminology portal, maintained the repository and concordance platform and provided support for the reader. The results are available on the project website. The results of the RSDO project are being integrated into many areas of modern digital society: smart cities and communities, smart factories, adapted ways of communicating for people with disabilities, healthcare institutions, courts, justice, police, universities, national assembly, etc. Open source also enables further development of language technologies and their use not only by public research organizations and civil authorities, but also by businesses.

new eHeritage Information System

The eHeritage online application (ISeD) enables maintenance and use of the Register of Immovable Cultural Heritage (eRNPD module) and the Register of Intangible Cultural Heritage (eRNSD module), establishment and maintenance of the system of Heritage Protection Areas (eVOD module) and effective monitoring and supervision of archaeological fieldwork research (eArchaeology module). The ISeD application supports all phases of the above-mentioned heritage protection processes and all involved stakeholders: the Ministry of Culture, the competent organisations for the protection of cultural heritage, the State and private archaeological research providers, the regional museums, and citizens. The publicly accessible parts of the ISeD application allow citizens to engage in the cultural heritage protection system. On the My eHeritage portal, citizens can submit initiatives for entry in the Register of Cultural Heritage, applications for cultural heritage consents for the investigation and removal of archaeological remains and participate in e-public consultation on the definition of protection regimes for cultural heritage. All relevant and up-to-date spatial and attribute data from ISeD are published on GIS public portal as open data.

The application operates on the Slovenian State Cloud infrastructure and uses central building blocks (SI-PASS, GeoHub-SI and Geospatial Web Services, TRAY etc.). The ISeD application has been developed in the framework of the project "Integrated Information Support for the Protection of immovable Cultural Heritage" and has been in use since September 2022.

4.1.2 Subnational Platforms and Applications

Municipalities Portals

Slovenian municipalities developed various tools and portals to enhance the dialogue with citizens, including the implementation of participatory budgets and proposals for city improvements to improve the quality of the public services provided and to implement their smart city or digitalisation plans and strategies.

Examples of subnational portals include:

- Izboljšajmo Maribor (Let's improve Maribor), urban municipality of Maribor citizens' proposal for improvements, notices on public infrastructure damage;
- Izboljšajmo Ptuj (Let's improve Ptuj), urban municipality of Ptuj citizens' proposal for improvements, notices on public infrastructure damage;
- Čuj, sodeluj (Maribor, participate), urban municipality of Maribor citizens' proposals for projects and voting on projects of the participatory budget;
- Predlagam odločam (Propose decide) urban municipality of Koper citizens' proposals for projects and voting on projects of the participatory budget;
- Servis 48, urban municipality of Celje citizens' proposal for improvements, notices on public infrastructure damage;

- Servis pobude meščanov (Citizen's proposals service), urban municipality of Ljubljana citizens' proposal for improvements, notices on public infrastructure damage;
- KrPovej (Kranj, tell us), urban municipality of Kranj citizens' proposal for improvements, notices on public infrastructure damage; and
- Odprti podatki Mestne občine Ljubljana (Open data of the urban municipality of Ljubljana), urban municipality of Ljubljana open data portal.

On individual municipalities' websites citizens can access all application forms online, which can be submitted with a digital signature via e-mail. Various public utility companies, owned by municipalities, also developed portals for users where they can access their data on costs and usage, for instance of drinking water, waste, heating, etc.

4.2 Networks

HKOM (Fast Communications Network)

Most government bodies have internet/intranet facilities and are linked to the government-wide network HKOM (Fast Communications Network), connecting more than 1 600 local networks.

Slovenian Governmental Cloud

The Slovenian Governmental Cloud (DRO) is based on open standard policy, ensured the connectivity of services, set up a single-service platform based on a common architecture for improving the accessibility of public services to citizens, ensured the availability of services from anywhere and at any time, and established effective information security. This infrastructure provides services that use sensitive, personal and other information that the State does not wish to store outside its environment. The national and common european objectives have been implemented in order to create a more affordable, efficient and user-friendly information environment that standardised and unified the development and maintenance of information and communication systems. Currently, activities are underway within the Resilience and recovery plan for the establishment of a new generation of cloud information infrastructure, which will be more energy efficient and will enable the implementation of an increased number of eServices with and within the State.

Healthcare Network

The Healthcare Network (zNET) provides a secure and reliable communication network to all healthcare providers. All public healthcare institutions are connected to zNET, whereas its adoption is considerably lower among private healthcare providers. In 2020, the National Institute of Public Health fostered the use of zNET and all private entities providing public healthcare services have been connected since November 2021.

TESTA Network Service

The TESTA Network Service – which stands for Trans European Services for Telematics between Administrations – is the main infrastructure of the European Union to ensure cross border exchange of information and support related EU policies. It provides a European backbone network for data exchange between a wide variety of EU public administrations, it ensures a guaranteed performance and a high level of security and has connections with all the EU Institutions and national networks. It caters for the exchange of both unclassified and classified information.

SME Test

Ministries publish draft regulations and other acts that are published in the Official Gazette of the Republic of Slovenia on the single national designated eDemocracy Portal. An open and inclusive policy making builds upon the idea of designing policies by broadening the evidence base. For this reason the Division for the Administrative Burden Reduction, Better Regulation and Quality in Public Administration has prepared an innovative web-based tool called SME Test, based on the Standard Cost Model, that enables the public (citizens, business entities, economic and other interest groups) to substantiate their comments and proposals on a public policy proposal and, in addition, to quantify the regulatory impact assessment of their alternative policy proposals on the economy. The use of SME Test is mandatory since January 2017. The public can thus access the

tool through the eDemocracy Portal that enables citizens to actively cooperate and take part in the decision-making process. The most important aspect is the opportunity to influence the drafting of regulations by expressing opinions and sending proposals and comments on regulation drafts to those who are preparing them and to the final decision makers.

4.3 Data Exchange

TRAY

The TRAY is a central system for electronic data enquiries. It enables efficient, reliable and secure collection of data for different clients, from numerous and heterogeneous data sources, by handling electronic data enquiries and electronic answers. Moreover, it also enables the handling of data sources in a customised and parameterised way. In 2019, an AI based algorithm for data traffic optimisation was added to the system, minimizing data collection congestion risks. It advanced the architecture and the ease of connectivity to make this system the first candidate as a national OOP (Once-Only principle) platform.

IO-MODULE

The IO-MODULE is the common platform for standardised data distribution. It is used by institutions for distributing data to the related clients. Additionally, the system enables to track the electronic data distributed and to see which user received which data, when and for what specific purpose.

Asynchronous Module

The Asynchronous Module enables electronic enquiries to data sources that are not accessible via synchronous access. By using this system, it is possible to communicate with data sources via specific 'waiting rooms', where all questions for a data source are collected and, after being processed and answered by the data source, transmitted back to the calling system with related answers.

Central Registry of Patient Data

The Central Registry of Patient Data (CRPD) is the core of the Slovenian eHealth system. It is designed for exchanging and sharing electronic health records nationally. The CRPD contains over 130 million records, covering over 95% of the population. All Slovenian healthcare providers are obliged to submit medical records to the CRPD promptly and are entitled to use them for the purpose of providing healthcare. Patients have full access to their CRPD data via the zVEM Portal and mobile application. The content of the CRPD comprises various types of healthcare documentation and structured patient summary records. In addition to the data provided within the healthcare process, patients' statements, such as advanced healthcare instructions and privacy consents, are stored in the CRPD. The CRPD has proven to be especially valuable with regard to medical records related to COVID-19 pandemic. As of December 2020, the CRPD was upgraded to support COVID-19 screening (recording of test results and SMS notifications for tested persons). Massive COVID testing continued in 2021 and 2022, with up to 130 000 test results recorded daily. In April 2021, the CRPD was upgraded to support a national portal for vaccination appointments. Since June 2021, the CRPD facilitates the central national system application for issuance of the EU Digital COVID Certificate. The use of CRPD has considerably increased and it now connects over 1 300 public and private healthcare providers, providing over 7 million documents monthly.

ePrescription

The ePrescription is part of the eHealth Project to provide national eHealth services. The ePrescription was set up to prescribe and dispense medications in a fully electronic manner. Furthermore, it provides access to drug interaction databases to doctors and pharmacists. Patients can access their ePrescriptions via the zVEM Portal and mobile application.

eAppointment and eReferral

The eAppointment system provides processing of referral documents (eReferrals) and appointment booking services. The system is nationally deployed and used by all healthcare providers. An online waiting list is available for over 1 700 healthcare services, promptly updated

by healthcare providers. Patients can book their appointments via the zVEM Portal and mobile application.

SKRINJA – Business Intelligence (BI)

Skrinja is a business intelligence and data warehouse system used as a central digital platform (BIaaS – Business Intelligence as a Service) which government agencies can rely upon to provide better services for citizens and business. By using emerging technologies, Slovenia is introducing new concepts and tools to bring analytics to decision makers. This will make access to public sector data more user-friendly. Data on Slovenian public sector wages, public procurement and common dimensions (code lists) are used regularly. Slovenia has started introducing HRM in the public administration and administrative procedures (public affairs processes). At a later stage, public procurement-related content will be added to the web portals. Over the next four years, 12 different data sources are planned to integrate the Skrinja system, supporting data-driven decision processes.

Geospatial Web Services

Slovenia provides platform users with access to location data via web services based on the Open Geospatial Consortium (OGC) standards and INSPIRE-compliant web services based on INSPIRE specifications. The web services supported are: online catalogue services (CSW) which return metadata information about data and services, and online map services (WMS and WMTS) which return a cartographically designed display of data based on defined styles. The WMS server prepares the map display dynamically, in real time, based on the specified parameters and stored styles for content display. The WMTS server returns previously prepared cartographic displays with predefined styles and in a predefined coordinate system. Web feature services (WFS) return vector and descriptive data in real time according to the specified parameters. Also, many new ATOM services were created for enabling EU harmonised access to different kind of geospatial data.

4.4 eID and Trust Services

SI-PASS - Authentication and eSignature Service

In the last few years, several projects for authentication and trust services as central building blocks were launched. The Authentication and eSignature Service SI-PASS has been fully operational since 2017, offering a central service for authentication and eSignature. The eSignature part of SI-PASS is implemented as a server-based system to allow the creation of an electronic signature with the private keys of the digital certificate holder securely stored in the central system. This system offers different levels of trust, including qualified digital signatures compliant with the eIDAS Regulation. SI-PASS has been integrated into major public administration systems. At present, there are more than 70 systems integrated. SI-PASS is also integrated with the Slovenian eIDAS node to enable cross-border authentication according to the eIDAS regulation. Currently, there are more than 30 portals or systems integrated with SI-PASS in a way that makes cross-border authentication available. Several of them were integrated through participation in two CEF projects on enabling cross-border authentication.

Qualified Digital Certificates

In line with the transition period until 2026 (based on national law) most eGovernment services are accessible using qualified digital certificates for eSignature that are issued by public or private qualified trust service providers, in line with the eIDAS regulation.

Mobile-based Identification and eSignature smsPASS

smsPASS service has been launched to enable the use of mobile phones for authentication and eSignature through SI-PASS services. At present, this functionality is enabled in mor than 55 different portals, also for citizens using the main State eGovernment Portal. Mobile based identification means based on the revision of eIDAS will be further investigated within the largescale pilot POTENTIAL. Slovenia is one of the 19 Member States taking part in this project. Slovenia will test the use of the European digital identification wallet to grant citizens and businesses access to the main e-government portals.

new New Slovenian Electronic Identity Card

The Slovenian government started issuing a new Slovenian identity card compliant with the law on 28 March 2022. The Slovenian identity card (SIeID) is a personal document that can be used to prove the citizen's identity either physically or electronically. The citizens aged 12 years and over receive a SIeID card with the following elements: electronic identification means of the assurance level high, electronic identification means of the assurance level low and a qualified certificate for electronic signature. Starting from the beginning of April 2023, SIeID will replace the health insurance card, e.g., when visiting the doctor or pharmacy. In December 2022 Slovenia started pre-notification according to eIDAS. The process is expected to finish in mid-2023.

Central Solution for eDelivery

In November 2020, the new central service SI-CeV was introduced to cover the eDelivery of the official documents to citizens and between public institutions. A central eDelivery solution, SI-CeV, acts as a "crossroad" to route items between sender and recipient. The solution enables public sector institutions to deliver official decisions electronically from their document systems or to receive delivery from other institutions, according to the General Administrative Procedure Act. Currently, more than 280 public institutions are covered by the electronic service system. Citizens can use their secure electronic mailbox, which they can open on the eGovernment portal, or at the information system VEP.SI. The new law on De-bureaucratisation adopted at the end of 2021 introduces two new methods, namely "notification with confirmation" and "notification without confirmation", with delivery in the citizen's regular electronic mailbox. The implementation of this simplified delivery is expected to be fully supported in mid-2023.

4.5 eProcurement

eProcurement Portal

The eProcurement system in the Republic of Slovenia is based on two portals:

- The Public Procurement Portal, in which all procurement notices, all public contracts and their modifications, procurement documentation and a list of public contracts awarded in the previous year with a value equal to or greater than EUR 10 000 net of VAT are published. The public procurement portal also tracks all payments executed and pairs them with an individual public procurement contract, so the interested public has the information on the financial execution of each individual public procurement contract, and
- A public State-developed eProcurement system called e-JN Information System, whose use is free of charge. After the technological renovation at the end of 2018, the system combines functionalities that were originally developed as part of different stand-alone modules/applications (eSubmissions, eAuctions, eDossier, eCatalogue and eInternal procedures). The five modules/applications are integrated into a comprehensive system on a single platform that will enable conducting public procurement procedures and techniques and instruments for electronic and aggregated procurement in a fully electronic way, from the proposal to start a procurement procedure to the conclusion of the procedure and ordering of individual items through a catalogue.

new STATIST

The Ministry of Public Administration developed an IT tool named STATIST, published on the electronic public procurement website. Its purpose is to provide more transparency in the field of public procurement. The application has been in use since January 2016, enabling a complete and thorough overview of public contracts awarded via public procurement. STATIST contains all information on public contracts awarded since 1 January 2013. Each user examines the data using various filters. The data can be exported in a .cvs format, which enables its reuse. Its use is free of charge. The tool is designed to empower the media, civil society organisations and the wider public in their scrutiny of public procurement. When it was launched, the application was well received.

Moreover, it helps the media prepare their reports. The application automatically displays, for the chosen timeframe, the ten largest contracting entities and the ten largest tenderers in terms of contract value, and the most frequently awarded contracts, according to the subject and legal basis. Each user can use the tool according to their needs using various filters, i.e. search parameters like the contracting authority (name, region where the company has its registered seat), procedure (type of procedure, legal basis, CPV) and tenderer (name, country and region of the company seat). Users can easily add and remove various filters and thus limit or widen the search according to their needs. The data is updated once a day.

eSLOG Standard 2.0

Directive 2014/55/EU on electronic invoicing in public procurement stipulates that public procurement contractors must accept an invoice for public procurement if it was issued in electronic form in compliance with European standard 16931 (EN 16391). The transposition of the eInvoicing Directive (2014/55/EU) into Slovenian law is contained in the Act Amending the Provision of Payment Services to Budget Users Act. Slovenia developed the new version of the eSLOG standard (version 2.0), which is compliant with the EN 16931 standard. The eSLOG standard version 2.0 is based on UN/EDIFACT INVOIC syntax, which is widespread in Slovenia among economic operators. The Public Payments Administration of the Republic of Slovenia (PPA) is the single entry and exit point for the exchange of eInvoices with budget users. From 1 October 2020 onwards, they can receive them in eSLOG standard version 2.0, UBL 2.1 and CEFACT CII. From 1 October 2020, budget users can also receive and send eOrder forms, eOrder response and eDespatch advice (eDocuments) in eSLOG standard version 2.0. The PPA upgraded the entry point so that it now includes entry points for eDelivery in accordance with the eDelivery AS4 and OpenPEPPOL AS2 profiles, thus enabling budget users to receive eInvoices submitted in the European standard. The PPA has been connected to PEPPOL since 2018. Information can be found at Slovenian National eBusiness Centre. Contracting entities other than budget users can use the eInvoicing exchange hub in accordance with eInvoicing Directive 2014/55/EU and the European standard. The exchange hub is operated by ZZI and provides users with the same set of functionalities for eInvoicing as the PPA single entry and exit point for budget users. The ZZI exchange hub is also a certified PEPPOL access point.

4.6 ePayment

Public Payments Administration

The Public Payments Administration operates and manages the dedicated infrastructure for payments and other related services. Payments are made via online banking, debit or credit cards and the mobile payments application, which enables the payment of eServices.

The PPA online store is an online payment-related service, which provides an easy way to set up online sales by budget users. All eServices can be accessed using smartphones and tablets, which further contributes to the increased utility and visibility of PPA ePayments and online payment of eServices for budget users. The purchase procedure is available in Slovenian, English, Italian and Hungarian. During the epidemic, the use of ePayments increased greatly. We are now noticing a change in the habits of users, who are opting for e-applications and online payment of e-applications in greater numbers. In 2022, the number of online payments increased by 44%.

4.7 Knowledge Management

Administration Academy

The Administration Academy, operating within the Ministry of Public Administration, organizes trainings and proficiency exams for civil servants. To organise, coordinate, administer and analyse training courses, programmes and proficiency exams, the eUA Portal is used. The portal also serves as a tool for civil servants to register and track their training activities through an elearning environment. The portal consists of a public web page, an administrative environment and a learning environment. The module for proficiency exams is in progress. In 2023, under the RRF, the Administration Academy started the programme 'Strengthening the digital knowledge and skills of civil servants' to improve the digital skills and awareness of civil servants.

JEP – Electronic Procedures Building Block

The JEP System is an information solution for the full and simultaneous electronic implementation of public procedures. The JEP performs the function of a procedure and form editor and also includes a wizard to fill out electronic forms, including the eSignature and ePayment functions. The JEP sends a completed user request to the competent public authority or allows authorities that do not have their own document management system to handle the application within the system itself. The JEP integrates building blocks for data exchange and trust services (see Chapters 6.3 and 6.4).

KRPAN – Document Management Building Block

With the KRPAN Information System, Slovenia is introducing a single, technologically updated, flexible, easily scalable and advanced information solution for the public sector to support the management of documentary material installed on the central information infrastructure of the Ministry of Public Administration. It enables government employees to work with documentary material faster, more flexibly and more efficiently. The KRPAN Information System provides secure capture and management of original and copy documentary material in digital form. It supports the recording and management of general and administrative matters and document lists, supports work with government materials, with eInvoices and other financial accounting documents and travel orders. The modular design of this solution is upgrade-friendly, i.e. it is suited to increase the number of users and the volume of data, to change and complement functionalities, to change the internal organisation of users and to connect with other information systems. It offers other information systems and individuals' central functions, such as: capture of physical material, central numbering, signing of documents, validation, and shipping of documents. For the purpose of safe and legal long-term storage, central storage of electronic material has been established within the project, which is also available to other State administration bodies' information solutions. With the new unified information solution, userfriendly interface and mobile access, employees of the State administration get a unified, faster, cheaper and safer tool for working with documentary material.

AI4SI platform

AI4SI is a non-profit think tank and multistakeholder platform of representatives from supply & demand side, NGOs, research and development and government that aims to promote, coordinate, and organize efficient knowledge transfer from AI research to implementation in companies and organizations.

4.8 Cross-border Infrastructure

Digital Europe for All

Digital Europe for All (DE4A) is a large-scale pilot aimed to explore the possibilities of implementing the Single Digital Gateway Regulation, especially the implementation of the Once-Only principle. Its overarching goal is to reinforce trust in public institutions and to unleash multiple measurable positive impacts in terms of efficiency gains and reduction of current administrative burden and costs. These goals are rooted in a toolkit for extended semantic interoperability and in the secure, privacy-preserving, and trustworthy realisation of the fundamental Once-Only Principle (OOP). The Ministry of Public Administration takes part in the citizen mobility eService as data provider of different evidence from the central population register and contributes to the OOP development at EU level. DE4A is funded by the EU Horizon 2020 research and innovation programme under grant agreement No. 870635.

4.9 Base Registries

Beneficial Owners Register

In December 2017, the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) established the Beneficial Owners Register in cooperation with the Office for Money Laundering Prevention of the Republic of Slovenia. The register was established based on the Prevention of Money Laundering and Terrorism Financing Act. The Beneficial Owners Register is the main repository of beneficial ownership information, since the identification of a natural

person that is owning or controlling a business entity is one of the conditions for the successful prevention of money laundering and terrorism financing. The purpose for establishing a Beneficial Owners Register was to ensure transparency in the ownership structures of business entities and to provide law enforcement authorities with access to credible information. Legal entities were obliged to enter the data on their beneficial owners. The purpose was to implement anti-money laundering and terrorism financing measures. Since then, public data about beneficial owners have been publicly accessible, with authorised entities having access to all data in the register.

Register of Accommodation Facilities and eTourism System

In December 2017, AJPES established the Register of Accommodation Facilities and eTourism System. The register was implemented on the legal basis of the Hospitality Industry Act and the eTourism System under the Residence Registration Act. The following three goals were achieved by the register and the eTourism System: (i) establishment of unique evidence of all accommodation facilities (i.e. the Register of Accommodation Facilities); (ii) unified reporting of guest book data from all accommodation facilities, and (iii) reduction of the administrative burden and costs for both reporters and recipients. The Register of Accommodation Facilities is publicly accessible free of charge on the AJPES web portal. To simplify the reporting of information and to increase the quality of the collected data, the owners of accommodation facilities report guest arrival information only once through the AJPES eTourism System. Previously, such reporting was carried out separately to the Police, the Statistical Office of the Republic of Slovenia and the municipalities. With this new arrangement, AJPES provides collected data for the purpose of keeping records of guests, for statistical purposes and for tax collection purposes.

Register of Deaths, Births and Marriages

The register is a computerised database in which the following events are recorded: birth, marriage or partnership and death, as well as other facts provided for by law. The Civil Register shows the personal status of citizens of the Republic of Slovenia and a record of births, marriages or partnerships and deaths of foreign nationals who have occurred in the territory of the Republic of Slovenia. An integral part of the civil register is the collection of documents which form the basis for the entry in the civil register.

Permanent Residence Register

Data on permanent and temporary residences in the Republic of Slovenia, permanent and temporary addresses abroad and addresses for service of individuals are kept, processed, stored and used in the Register of Permanent Residence. The recording of these data serves the purpose of monitoring the situation and movement of the population for those State authorities and other users who need these data to perform the prescribed task of ensuring electronic service, and for the purpose of carrying out statistical and other surveys provided for by law. Technical information on addresses is also kept in the permanent residence register. It is connected to the Register of Spatial Units, the Real Estate Register, the Building Cadastre, the Slovenian Business Register and other records, such as the Birth Register, the Central Population Register, the Register of Issued Identity Cards, Passports, etc.

Address Register

The Surveying and Mapping Authority of Slovenia is in charge of managing the Address Register, which is a part of the Register of Spatial Units. The following information shall be kept in the register of addresses: address number, title, centroid address and spatial units in the area in which the centroid of the address is located. The address number is an identification mark assigned by the Surveying and Mapping Authority. The address consists of the municipality, settlement, street, house number and additionally the house number and the apartment number or the number of the business premises, if any. The centroid of the address is determined within the floor plan of the building. The Address Register is connected to all the main State registers that use addresses (Population Register, Taxpayers Register, Business Register, Real Estate Register, etc.).

National Register of eInvoice Recipients

The National Register of eInvoice Recipients provides information about recipients of eInvoices and their method for receiving documents in a structured data format. It is open and allows connections to other systems to ensure organisations have a greater degree of automation when sending eInvoices. The National Register of eInvoice Recipients is managed by the Chamber of Commerce and Industry of Slovenia. The main purpose of the register is to support automation on the issuer's side. It enables the simplification of eCommerce, reduces the possibility of errors and enables full automation of eInvoicing operations. All budget users are included into the National Register of eInvoice Recipients.

Spatial Data Sets

Slovenia is harmonising addresses, buildings, parcels, public infrastructure and topography registries with European requirements. This has also led to a European Reference System, used in the Slovenian spatial data sets, that enables interoperable, harmonised and ready to use data by all European bodies and institutions.

Central Vocabulary

The Central Vocabulary plays a key role in ensuring semantic interoperability. It uniformly and clearly defines the key terminology used in the public sector. The Central Vocabulary represents a repository of common code lists, upper ontologies, core vocabularies and base registries data models in RDF format. Their use as a base for extension is recommended for the development of sector-specific data models in the public sector.

Central Records of Applications

The Central Records of Applications (42EVA) is an information support system for storing records that contain important metadata about installed applications. It also contains information about GDPR-compliant personal data processing in the applications. It enables the collection of important data about applications and their modules in one single place and in a structured way to prepare appropriate reviews and lists that can be useful in the decision-making process at different levels. Each user (with the appropriate rights) can either view the data directly or create an ".xls" file to view the data using Excel. 42EVA covers applications, modules, contracts/agreements and reports. More information can be found here.

EUCARIS, EULIS and ECRIS

Slovenia is a member of the European Car and Driving Licence Information System (EUCARIS) and the European Criminal Records information System (ECRIS) and is fully connected to the European Land Information Service (EULIS).

4.10 Innovative Technologies

4.10.1 Artificial Intelligence (AI)

Semantic Text Analyser

The Semantic Text Analyser is an example of the use of emerging technologies in Slovenia. It is a working prototype developed in cooperation with the University of Ljubljana and co-financed by the European Union. Using AI technologies like NLP, machine, and deep learning, this new tool will support the comparison of texts by content and analysis of their meaning through concepts and terms. It is used to prepare and update vocabularies, to finde and narrow down relevant texts with similar content in one or several collections (eg. finding relevant laws by content) and to improve fast content preview of government texts, among others. In the next phase, the semantic analyser is going to be used to support the implementation of digital services, such as the optimisation of work for service portals.

4.10.2 Distributed Ledger Technologies

SI-Chain – National Blockchain Test Infrastructure

Slovenia launched the National Blockchain Test Infrastructure SI-Chain to enable the testing of existing and new blockchain applications for both the public and private sectors. The blockchain solution, which is still in the test phase, allows for transactions and offers the possibility to create smart contracts.

4.10.3 Big Data

No particular infrastructure has been adopted in this field to date.

4.10.4 Cloud Computing

No particular infrastructure has been adopted in this field to date.

4.10.5 Internet of Things (IoT)

No particular infrastructure has been adopted in this field to date.

4.10.6 High-performance Computing

No particular infrastructure has been adopted in this field to date.

4.10.7 High-speed Broadband Connectivity

Portal Prostor

An infrastructure viewer has been developed by the Surveying and Mapping Authority. The mapping system of high-speed broadband connectivity presents the graphical form of data on ducts, cables, nodes, base stations, etc. The system gathers data on electronic communication operators' facilities, mainly location and type of networks used. Citizens can check the availability of the broadband provided by operators on Geoportal AKOS as well.

4.10.8 GovTech

No particular infrastructure has been adopted in this field to date.



5 Digital Public Administration Governance

For more details on Slovenia's responsible bodies for digital policy and interoperability, its main actors, as well as relevant digital initiatives, please visit the NIFO collection on Joinup.

5.1 National

new Ministry of Digital Transformation

The Ministry of Digital Transformation was established on 24 January 2023. It monitors and analyses the state of digital transformation and the information society at national level. It is responsible for the areas of the information society, electronic communications, digital inclusion, digital competences, the data economy, management of information and communication systems, and fostering the digitalisation of public administration services.

In cooperation with the competent Ministries and government offices, the Ministry prepares, coordinates, and implements national measures and projects in the field of the information society and digital transformation of the economy, public administration, healthcare, justice, agriculture, education and other areas.

The Ministry of Digital Transformation took over the policies and strategies regarding eGovernment focusing on innovative and human-centric solutions and digital public services, together with the development and management of information systems previously carried out by the Information Technology Directorate within the Ministry of Public Administration.

Government Information Security Office

The Government Information Security Office (GISO), which succeeded the Information Security Administration of the Republic of Slovenia, was established on 20 July 2021 and became operational on 31 July 2021. GISO is the competent national authority in the field of information and cyber security. Its core mission is to increase resilience to cyberthreats that can affect individuals, businesses, the government, and society at large. GISO connects stakeholders in the national information security system and coordinates the operational capabilities of the system at strategic level. Under the Information Security Act (ISA), GISO pays special attention to a group of essential service providers (in the fields of energy, digital infrastructure, drinking water supply and distribution, healthcare, transport, banking, financial market infrastructure, food supply and environmental protection), a group of digital service providers and a group of State administration authorities. GISO is also the single point of contact to ensure cross-border cooperation with the relevant authorities of other EU Member States and with the European CSIRT Network, as well as other international cooperation tasks.

Through its own inspection service, it oversees the implementation of the ISA. Besides that, GISO is the National Cybersecurity Certification Authority and is also appointed by the Slovenian government as the National Coordination Centre for Cybersecurity. It also incorporated the government CERT, which previously operated within the Ministry of Public Administration. GISO is strategically placed within the Slovenian national security system and is tasked with notifying the government and the National Security Council (NSC) in the case of a critical incident or cyberattack.

Council for the Informatics Development in Public Administration

From 25 February 2022 the Council for the Informatics Development is again operational. It manages the development of information and communication systems of the State administration, as well as their financial resources. The members of the Council are representatives of Ministries, their constituent bodies and government departments.

The Council consists of a strategic group (State secretaries from certain governmental bodies) and an operational working group (heads of informatics in all bodies and government services of the State administration).

The Council has two main tasks:

• Promoting the digitalisation and digital transformation in State administration and eservices related to State administration for the population of Slovenia and the Slovenian economy; and • Coordinating and issuing opinions on the eligibility of investments and projects of State administration bodies.

The Council will cease to function when the Ministry of Digital Transformation will fully take over its tasks, as stipulated by the latest amendment to the State Administration Act (Official Gazette of the Republic of Slovenia, No. 18 /23), ZDU-10).

Secretariat-General of the Government of the Republic of Slovenia

The Secretariat-General of the Government of the Republic of Slovenia is primarily responsible for conducting the sessions of the government, its working bodies, expert councils and other governmental bodies, and for monitoring the implementation of decisions adopted by the government and the obligations undertaken by or imposed on it.

One of the key tasks of the Secretariat-General is to ensure the smooth operation of information systems whose primary function is to support the decision-making processes. Electronic services and systems developed for this purpose facilitate the harmonisation of documents at different levels and the provision of information on government decisions to various target user groups and to the public.

ICT Association at the Chamber of Commerce and Industry

The Ministry of Digital Transformation works with the ICT Association of Slovenia (ZIT) at the Chamber of Commerce and Industry. The association strives to connect public administration and ICT companies as well as to cooperate in marketing and implementing ICT solutions abroad. There are several cooperation initiatives, from 5G networks, eIdentity legislation, smart city solutions to the Artificial Intelligence National Strategy and the Open Data National Hub. The ZIT runs several sections, competence centres, initiatives and projects that support the ICT sector and the digitalisation of the economy in Slovenia. The key sections are:

- ZITEX the export section, organising activities to support the internationalisation of the industry;
- AIDAS section for data science and artificial intelligence to work on key topics on these very important areas for the country and common EU digital market;
- SOEK improving the business environment for telecom solutions providers and cooperating on the regulation on digital connectivity;
- SeGov cooperating with the government, connecting providers and exporting solutions;
- S3P promoting online-business and eCommerce, cooperating with the government offices in the field of financial regulation;
- SeKV networking in the field of cybersecurity;
- ScienceTech networking high technology companies for further cooperation with CERN, ESA, EUMETSAT, etc.;
- eHealth section working closely with Ministry of Health in developing Slovene eHealth system including the strategy, key goals and projects. Also working closely with all key stakeholders on the topic;
- Initiatives of ICT Association of Slovenia;
- Centre for eBusiness (EPOS), providing B2B support to SMEs with standards, tools and skills;
- AI4Slovenia (AI4SI) initiative to promote and support the transfer of knowledge of AI to industry, from research to use;
- ICT Innovation Network part of Smart Specialisation of Slovenia, supporting all vertical industries with digitalisation initiatives and projects;
- Gaia-X Hub Slovenia the central contact point for Slovenian companies, stakeholders, initiatives, associations, and public sector bodies contributing to the Gaia-X project and reference point for data spaces, and
- OPSIHub an initiative with the Ministry for Public Administration to promote public open data.

Slovenian Digital Coalition – Digitalna.si

The Slovenian Digital Coalition includes stakeholders from trade and industry, science, education, public administration, public sector, local government and civil society. The Slovenian Digital Coalition is focused on attaining a cross-sector multiplier impact, accelerating the development of the digital society and leveraging opportunities for the development of ICT and the internet. In November 2020, the Slovenian Digital Coalition organised a forum showcasing three years of work

and assessing the current state of play in the field of digital transformation. A wide variety of stakeholders took part in this forum and the topics discussed covered key areas in this field. There are three focus areas for the Digital Coalition: (i) digital economy; (ii) digital skills and education system, and (iii) regulatory and business ecosystem. Each area is supported by a coalition strategic working group. Furthermore, the Slovenian Digital Coalition is also actively participating in different events, and it represents the point of view of businesses. It also highlights those areas which would require additional activities in order to keep on growing.

Information Commissioner

The Information Commissioner performs the duties of the national Data Protection Authority: it oversees the application of the rules on personal data protection (including the GDPR), the Personal Data Protection Act and the Act on the Protection of Personal Data in the Area of Treatment of Criminal Offences. It performs inspections and issues penalties with regards to violations of the above-mentioned laws. The Information Commissioner also acts as a body of appeal for resolving complaints from the data subjects regarding their rights, namely the right of access by the data subject, the right to rectification, the right to erasure, etc.

On the other hand, the Information Commissioner oversees the application of the Access to Public Information Act with regards to individual complaints when liable public sector bodies refuse access to public documents or refuse a request for reuse of public sector information. The role that the Information Commissioner has played is vital in ensuring a high degree of institutional transparency. The number of individual complaints is steadily growing every year, which shows that the awareness on the right to access to public information has risen also among Slovenian citizens. The Information Commissioner receives only a low number of complaints every year regarding the right to reuse public information when compared to the number of complaints raised over the refusal of access to public documents. This can be interpreted as evidence that government efforts to promote and enable the reuse of public sector information are working.

5.2 Subnational (Federal, Regional and Local)

Municipalities

In accordance with the constitutional provisions, Slovenian municipalities and urban municipalities are autonomous in the field of introducing eSolutions. Local eGovernment initiatives are solely under the responsibility of local authorities, mostly municipalities, which implement them using their own mechanisms and time schedules.

Voluntary coordination is taking place in the framework of local government associations. For instance, the Association of Urban Municipalities of Slovenia established the Committee for Digitalisation and Smart Cities, which unites experts of the eleven urban municipalities. Cities exchange information on best practices, solutions and challenges and prepare position papers on State policies and public tenders. As the resources for implementing digital solutions at local level are limited, cities explore possibilities for cooperation in projects and initiatives that could be co-financed by EU or State funds.

The Association of Municipalities and Towns of Slovenia (SOS) is another example of coordination of local self-government bodies. Besides working with bodies dealing with digital transition, the SOS coordinates access rights and offers support to the local authorities on the eTourism system. The SOS established a strategic partnership with the University of Ljubljana, which resulted in the creation of 4P Digital Innovation Hub(4PDIH). The aim of the 4PDIH is to foster awareness and provide services to grow digital skills, share digital experience and case studies locally, regionally and internationally, and support the government to adapt regulation and open its data to foster entrepreneurship.

6 Cross-border Digital Public Administration Services

6 Cross border Digital Public Administration Services for Citizens and Businesses

Further to the information on national digital public services provided in the previous chapters, this final chapter presents an overview of the basic cross-border public services provided to citizens and businesses in other European countries. Your Europe is taken as reference, as it is the EU one-stop shop which aims to simplify the life of both citizens and businesses by avoiding unnecessary inconvenience and red tape in regard to 'life and travel', as well as 'doing business' abroad. In order to do so, Your Europe offers information on basic rights under EU law, but also on how these rights are implemented in each individual country (where information has been provided by the national authorities). Free email or telephone contact with EU assistance services, to get more personalised or detailed help and advice is also available.

Please note that, in most cases, the EU rights described in Your Europe apply to all EU member countries plus Iceland, Liechtenstein and Norway, and sometimes to Switzerland. Information on Your Europe is provided by the relevant departments of the European Commission and complemented by content provided by the authorities of every country it covers. As the website consists of two sections - one for citizens and one for businesses, both managed by DG Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) - below the main groups of services for each section are listed.

6.1 Life and Travel

For citizens, the following groups of services can be found on the website:

- Travel (e.g. Documents needed for travelling in Europe);
- Work and retirement (e.g. Unemployment and Benefits);
- Vehicles (e.g. Registration);
- Residence formalities (e.g. Elections abroad);
- Education and youth (e.g. Researchers);
- Health (e.g. Medical Treatment abroad);
- Family (e.g. Couples);
- Consumers (e.g. Shopping).

6.2 Doing Business

Regarding businesses, the groups of services on the website concern:

- Running a business (e.g. Developing a business);
- Taxation (e.g. Business tax);
- Selling in the EU (e.g. Public contracts);
- Human Resources (e.g. Employment contracts);
- Product requirements (e.g. Standards);
- Financing and Funding (e.g. Accounting);
- Dealing with Customers (e.g. Data protection).

The Digital Public Administration Factsheets

The factsheets present an overview of the state and progress of Digital Public Administration and Interoperability within European countries.

The factsheets are published on the Joinup platform, which is a joint initiative by the Directorate General for Informatics (DG DIGIT) and the Directorate General for Communications Networks, Content & Technology (DG CONNECT). This factsheet received valuable contribution from the Ministry of Public Administration of the Slovenia Repulic.

The Digital Public Administration Factsheets are prepared for the European Commission by Wavestone.

An action supported by Interoperable Europe

The ISA² Programme has evolved into Interoperable Europe - the initiative of the European Commission for a reinforced interoperability policy.

The work of the European Commission and its partners in public administrations across Europe to enhance interoperability continues at full speed despite the end of the ISA2 programme. Indeed, enhanced interoperability will be necessary to unlock the potential of data use and reuse for improved public services, to enable cross-border collaboration, and to support the sector-specific policy goals set by the Commission for the future.

Interoperable Europe will lead the process of achieving these goals and creating a reinforced interoperability policy that will work for everyone. The initiative is supported by the Digital Europe Programme.

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