Liechtenstein

2024 Digital Public Administration Factsheet

Supporting document

Main developments in digital public administrations and interoperability

JULY 2024

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Political Communication	*Legislation*	*Infrastructure*

2030 DIGITAL DECADE

The **Digital Decade policy programme 2030** sets out digital ambitions for the next decade in the form of clear, concrete targets. The main goals can be summarised in 4 points:

1) a digitally skilled population and highly skilled digital professionals;
2) secure and sustainable digital infrastructures;
3) digital transformation of businesses;
4) digitalization of public services.

Skills
20 million employed **ICT specialists**, more
graduates + gender balance
80% of adults can **use tech** for everyday tasks

Government
Key Public Services – 100% online
Everyone can **access health records online**
Everyone can use **eID**

Infrastructure
Gigabit connectivity for everyone, **high-speed mobile coverage** (at least 5G) everywhere
EU produces 20% of world's **semiconductors**
10 000 **cloud edge nodes** = fast data access
EU **quantum computing** by 2025

Business
75% of companies using **Cloud, AI or Big Data**
Double the number of **unicorn startups**
90% of **SMEs taking up tech**

The production of the **Digital Public Administration factsheets and their supportive documents** support the objectives and targets of the Digital Decade programme. By referencing national initiatives on the digital transformation of public administrations and public services, as well as interoperability, they complement existing data and indicators included in the Digital Decade reports and related resources. They also highlight and promote key initiatives put in place or planned by EU countries to reach the Digital Decade's targets.

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. The mechanism is based on a set of 91 Key Performance Indicators (KPIs) clustered within the three scoreboards (Principles, Layers, Conceptual model and Cross-border interoperability), outlined below.

Starting from the 2022 edition, an additional scoreboard, Scoreboard 4, focusing on cross-border interoperability, has been incorporated. This scoreboard assesses the adherence to 35 Recommendations outlined in the EIF framework. Specifically, it encompasses Interoperability Principles 2, and 4 through 11 from Scoreboard 1, all recommendations pertaining to Interoperability Layers from Scoreboard 2, as well as Conceptual Model recommendations 36 to 43 and 46 to 47 from Scoreboard 3.

Scoreboard 1 **Interoperability Principles**	Recommendation(s) n°
Principle 1 - Subsidiarity and Proportionality	1
Principle 2 - Openness	2-4
Principle 3 - Transparency	5
Principle 4 - Reusability	6-7
Principle 5 - Technological neutrality and data portability	8-9
Principle 6 - User-centricity	10-13
Principle 7 - Inclusion and accessibility	14
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

Scoreboard 2 **Interoperability Layers**	Recommendation(s) n°
Interoperability Governance	20-24
Integrated Public Service Governance	25-26
Legal Interoperability	27
Organisational Interoperability	28-29
Semantic Interoperability	30-32
Technical Interoperability	33

Scoreboard 3 **Conceptual Model**	Recommendation(s) n°
Conceptual Model	34-35
Internal information sources and services	36
Basic Registries	37-40
Open Data	41-43
Catalogues	44
External information sources and services	45
Security and Privacy	46-47

Scoreboard 4 **Cross-border Interoperability**

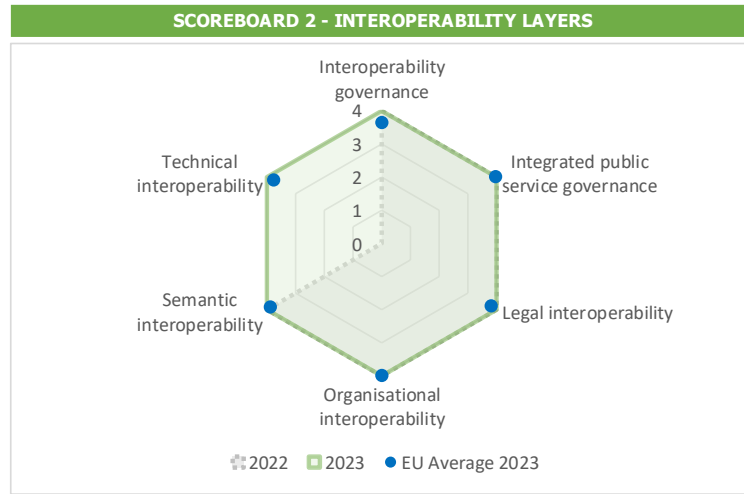Source: European Interoperability Framework Monitoring Mechanism 2023

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 Liechtenstein in 2023, comparing it with the EU average as well as the performance of the country in 2022.
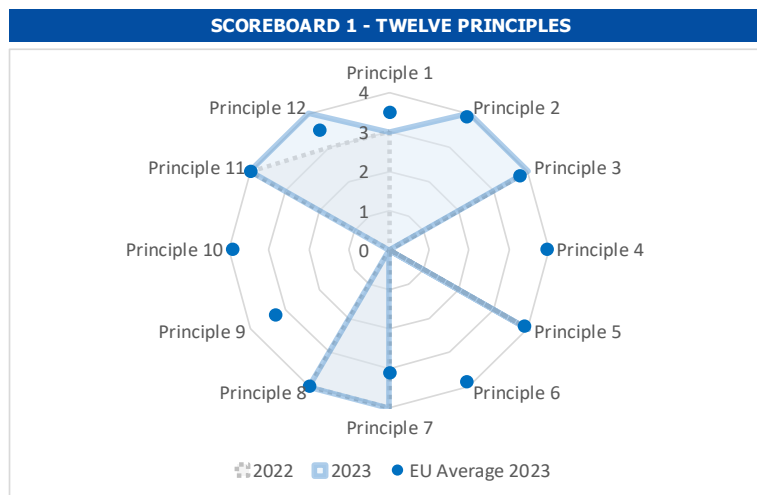
SCOREBOARD 1 - TWELVE PRINCIPLES

⬚ 2022 ⬛ 2023 ● EU Average 2023

Source: European Interoperability Framework Monitoring Mechanism 2023

Liechtenstein's results in Scoreboard 1 show an overall fair performance in the implementation of the EIF Principles, despite the lack of data for Principles 4 (Reusability), 6 (User-centricity), 9 (Multilingualism) and 10 (Administrative simplification). Liechtenstein gets a high score of 4 on the implementation of Principle 2 (Inclusion and Accessibility), Principle 3 (Transparency), Principle 7 (Inclusion and accessibility), Principle 8 (Security and privacy) and Principle 11

(Preservation of information), scoring above the EU average. The implementation of principle 12 has resulted in a higher score of 4 instead of 3 in 2023.
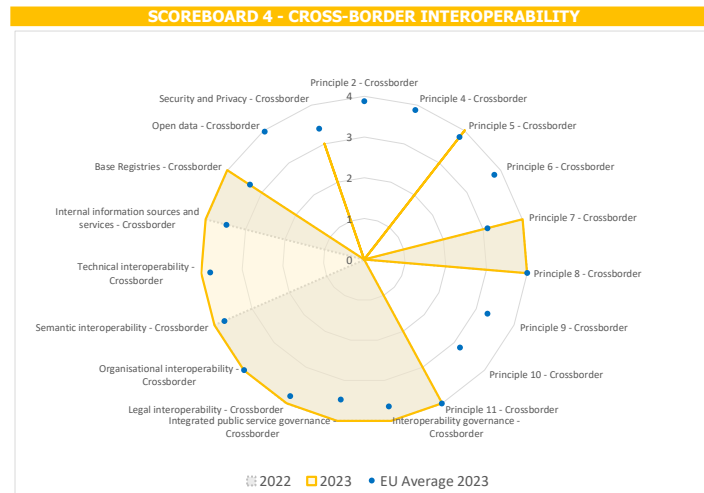
SCOREBOARD 2 - INTEROPERABILITY LAYERS

Source: European Interoperability Framework Monitoring Mechanism 2023

Liechtenstein's results for the implementation of interoperability layers assessed for Scoreboard 2 shows an overall high performance, scoring 4, and at the European average, in all the layers. Liechtenstein could further improve on using a structured, transparent, objective, and common approach to assessing and selecting standards and specifications (Interoperability governance – Recommendation 22). However, the score of three of the recommendation does not impact the overall performance of the layer.
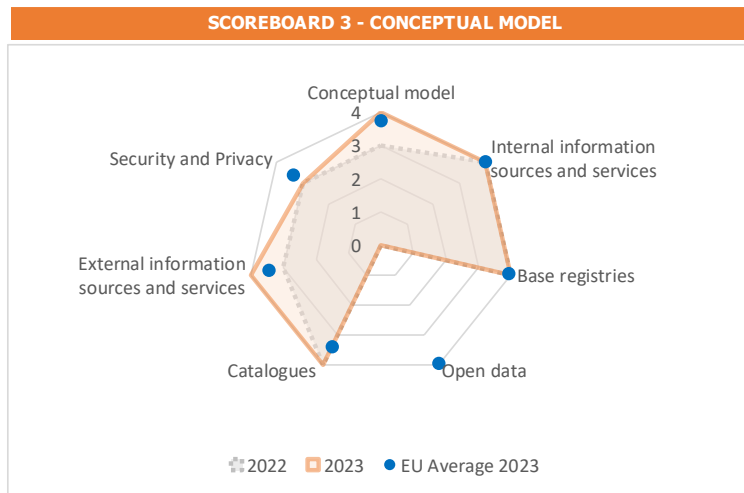
SCOREBOARD 3 - CONCEPTUAL MODEL

Source: European Interoperability Framework Monitoring Mechanism 2023

Liechtenstein's scores analysing the Conceptual Model in Scoreboard 3 highlight an overall good performance in almost every area. However, Liechtenstein could focus on security and privacy and particularly by leveraging trust services according to the Regulation on eID and Trust Services as mechanisms that ensure secure and protected data exchange in public services (Recommendation 47).

SCOREBOARD 4 - CROSS-BORDER INTEROPERABILITY

Source: European Interoperability Framework Monitoring Mechanism 2023

Liechtenstein's performance in Cross-border Interoperability, as reflected in Scoreboard 4, demonstrates a good performance. Notwithstanding, in comparison to last year's analysis, Liechtenstein has retrieved information on the Technical Interoperability, more specifically on the use of open specifications, where available, to ensure technical interoperability when establishing European public services (Recommendation 33).

Additional information on Liechtenstein'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
- Repository of good practices on the EIF implementation

2. Digital transformation of public administrations

Main Digital Strategies, Action Plans and Legislations

Government Programmes 2021 – 2025

The government is seizing the opportunities of digitalization for its administration and schools by providing the necessary legal basis and infrastructure for the economy and society, while taking into account the risks associated with technological change.

Education Strategy 2025+

The Education Strategy 2025+ came into force in 2001. It was designed in 2019 under the direction of the Ministry of Education, in collaboration with the Office for Education, the Office for Vocational Training and Career Counselling, and several other education-related institutions. The Education Strategy 2025+ is a framework which aims at further strengthening Liechtenstein's education system. It outlines the vision and the primary objectives for education in the Liechtenstein school system and describes how to achieve them. The Education Strategy 2025+ identifies a "future-oriented" system as one of its strategic goals, which entails strengthening digital and media skills within the context of the digital agenda.

eGovernment Act

In autumn 2011, the Parliament adopted various laws of critical importance for the development of eGovernment, such as the eGovernment Act (E-GovG) (register number 172.018.1 and 172.018.11), which promoted electronic communication and facilitated access to public authorities. This act mainly includes provisions focused on electronic communication, identification and authentication in the framework of electronic commerce and electronic records management. The latest amendments to the eGovernment Act and the eGovernement Regulation entered into force in December 2023.

Digitalization of Internal Processes

Digital National Administration

Liechtenstein National Administration is consistently pursuing the path of complete digitalization of central government services under the Once-Only principle. All processes are fully digitized, from setting up a company and submitting construction documents through to more simple official transactions. The State is a key player in the digital transition, on one hand by creating the necessary new legal framework and, on the other hand, by increasingly using the opportunity to provide State solutions for private sector applications, thus promoting Liechtenstein's progress, together with business and science.
More specifically, Liechtenstein's digital roadmap foresees three complementary axes:

- Exploiting the potential of digital identity. Secure and verifiable digital identification helps the State and the economy create more efficient processes. Reducing bureaucracy, costs, time and paper-based workflows, developing new business models, improving customer loyalty through seamless and trustworthy interactions, and supporting economic sectors such as e-commerce are just some of the advantages of Liechtenstein's pioneering role in matters of digital identity (eID.li);
- Supporting companies setting up business faster through digital services provided by the National Administration. Digital technologies open up a variety of ways to make government services efficient and provide access to government services and information at any time and place; and
- Proactively addressing the challenges of digital transformation. The shortage of skilled workers is defined as one of the main challenges for which specific measures have been taken.

Portal Impuls-liechtenstein

With the 2019 Financial Centre Strategy, the government and the Princely House identified the principles and defined the strategic goals for the development of Liechtenstein's financial centre in international competition. The government is taking comprehensive measures to ensure that the Liechtenstein financial centre continues to be successful in the future. In recent years, the government has therefore created an innovation framework in order to be able to develop the State framework conditions for entrepreneurial activities in the best possible way.

The Liechtenstein Innovation Framework is designed to foster continuous and dynamic development and legal certainty for both individuals and businesses operating within the country. Central to this approach is the government's commitment to nurturing innovation through a supportive ecosystem of specialized entities and initiatives. Key players include the Office for Financial Market Innovation and Digitalisation and the Financial Market Authority's Regulatory Laboratory, which serve as pivotal resources, competence centers and contact points for navigating the innovative landscape. Additionally, the government offers a fast track and lean format for ideas to improve the framework conditions in Liechtenstein through the "Innovation Clubs". This format allows individual companies or consortia to submit suggestions for the improvement of laws, regulations, processes, or official practices, offering a direct and efficient pathway for fostering a more innovative business environment.

Digitalization Supporting the EU Green Deal

European Digital Innovation Hub Liechtenstein

The Liechtenstein European Digital Innovation Hub (EDIH) digihub.li - nominated by the European Commission - focuses on blockchain and token economy **in conjunction with sustainable and renewable business models** and offers four core services: (i) an innovation ecosystem to support SMEs and public administrations in the development of digital business models; (ii) the promotion of digital skills among employees of SMEs, administration and the population; (iii) personal coaching for digital transformation projects; and (iv) the provision of innovation spaces for start-ups, SMEs and investors to build and scale digital business models.

3. Interoperability and data

Interoperability Framework

No particular initiatives have been reported in this field to date.

Data Access, Management and Reuse

Open Data

Information Act

The Information Act (*Informationsgesetz*) entered into force in January 2000. It allows any citizen to obtain files from the State and municipal bodies, as well as from private individuals who perform public tasks. Responses must be given in a timely manner. This does not apply to documents under preparation. In addition, there are exemptions for protecting decision-making, public security, privacy and professional secrets, and to avoid disproportionate expenditure. Documents are released based on a balance of interests' test. Appeals can be made to a court. The law also sets rules regarding public access to meetings of the Parliament, commissions and municipalities. The Information Act is supplemented by the Information Regulation (Informationsverordnung) (register number 172.015.1).

Open Data Government Portal

In 2022, a project (eGov OGD portal) was launched with the aim of establishing a central portal at national level in which existing public data are published. Various formats, including machine-readable formats, will be available for obtaining the data. Each data provider will be responsible for fulfilling its publication obligations. The first version of the OGD platform is to be implemented by the end of 2024.

Law on the Reuse of Public Sector Information

In 2008, a new Law on the Reuse of Public Sector Information (Law No. 172/016), implementing the Public Sector Information (PSI) Directive, was introduced in Parliament and published in the National Law Gazette, complementing the Law on Information (July 1999) and the Regulation on Information (November 1999). The main objective was to promote an open information policy for public administration. The Joint Committee Decision for the incorporation of the European Directive on the re-use of public sector information (2003/98/EC) into the European Economic Area (EEA) Agreement entered into force on 1 September 2006.
The Joint Committee Decision No. 59/2017 entered into force on 1 October 2020, incorporating Directive 2013/37/EU amending Directive 2003/98/EC on the reuse of public sector information into the EEA Agreement. Directive 2013/37/EU was transposed into national law through an amendment to the law of 29 May 2008 on the reuse of public sector information and has been legally binding in Liechtenstein since 1 August 2020.
In 2022 a complete revision of the law on the reuse of public sector information was initiated to transpose Directive (EU) 2019/1024 into Liechtenstein law. The legislation process was concluded in December 2023. Directive (EU) 2019/1024 was incorporated into the EEA Agreement by Joint Committee Decision No. 190/2022 of 10 June 2022.

Base Registries

All registers are connected with an Oracle Service Bus. Data can be retrieved via web services (rest/soap). The Register of Persons (ZPR) serves as the central basic register.

The following table lists Liechtenstein's base registries:

National

Business and Tax	The Commercial Register is a public register, endowed with public faith, which is primarily responsible for the legal certainty of commercial transactions by disclosing the private law situation, in particular the liability and representation relationships of natural and legal persons active in this field. If falls under the responsibility of the Office of Justice.
Transportation and vehicles	The National Roads Office (NRO) uses a special system (CARI) with a corresponding register for drivers, vehicles, signs and inspections. This register is linked to EUCARIS, which provides for the exchange of information on vehicles and driving licenses. Liechtenstein also uses EUCARIS on the basis of bilateral agreements with Switzerland to exchange keeper data in case of traffic offences. The Office of Economics Affairs maintains a Register of Road Transport Companies with information on the authorisations and data of undertakings and natural persons.
Land	The Land Registry is a public register under the responsibility of the Office of Justice in which land and rights in rem are registered in order to ensure the greatest possible legal certainty in the movement of land. On the basis of Article 8 of the Statistics Act and Articles 9 to 13 of the Statistics Regulation, the Office of Statistics, in cooperation with the municipalities, the Office of Building Construction and Spatial Planning and the Civil Engineering and Geoinformation Office, maintains the Liechtenstein Building and Housing Register (GWR). The GWR serves both statistical and planning purposes. At least all residential buildings must be kept in the GWR. In practice, with a few exceptions, the GWR also contains all non-residential buildings that are subject to a licensing or notification requirement under the Building Act.
Population	The Central Register of Persons (ZPR) is the central data management of persons and companies in Liechtenstein. These data are maintained and used in the LLV by various offices (e.g. Civil Registry Office, Migration and Passport Office, Fiscal Authority, National Road Office (NRO), Office of Statistics, etc.). The offices access these central data via different specialist applications.
Other	• The EEA Register, which is under the responsibility of the EEA Coordination Unit, contains the titles of the EU legislation applicable to Liechtenstein and their references in the Official Journal of the European Union in accordance with the decisions of the EEA Joint Committee announced in the Liechtenstein Provincial Law Gazette. • The Cadastre of Public Law Restrictions on Landownership (ÖREB-Kataster) is the reliable, official information system for the most important public property restrictions. Any change in the topics of the cadastre (new, modified or deleted PLR-cadastre) is continuously followed up. • NIC Liechtenstein is the Network Information Centre responsible for administering domain names ending in <.li>. • The Liechtenstein Chemicals Database is maintained by the Office of Environment and is a central information system that collects and manages information on chemicals and mixtures manufactured, imported, placed on the market or used in Liechtenstein. • The list of economically entitled persons (VwbP) is kept for the purpose of preventing money laundering, pre-money laundering and terrorist financing. It contains data on the economically entitled persons of legal entities. Legal entities are companies, foundations and trustees. If falls under the responsibility of the Office of Justice. • In accordance with Article 27 of the BWBG (Construction Professions Act), the Office of Economics Affairs maintains an automated register in which

	the data of the authorisation holders, the managing director and, where applicable, the manager (construction-professional register) are kept. It provides information about the data entered in the register, insofar as this is not contrary to data protection regulations. If falls under the responsibility of the Office of Economic Affairs.
	• Pursuant to Article 83a of the Money Gaming Act (GSG), the Office of Economics Affairs maintains a publicly accessible register of authorised operators of gambling games (Gambling register).
	• Since 1 January 2021, the Trade Act (GewG) distinguishes between trades subject to authorisation and those subject to registration (Trade Register). The trades subject to authorisation are listed in Annex 3 to the Trade Regulation. If falls under the responsibility of the Office of Economic Affairs.
	• The Liechtenstein online Trademark and Design Register exclusively contains actively registered and published trademarks and designs in Liechtenstein. If falls under the responsibility of the Office of Economic Affairs.
	• The electronic platform e-MWST provides information on whether a company is included in the VAT Register. If falls under the responsibility of the Fiscal Authority.
	• The Federal Statistical Office (BFS) maintains a specific and physically independent UID Register. It is public and can be accessed on the internet at https://www.uid.admin.ch/. It contains the minimum required identification information of the UID units. If falls under the responsibility of the Office of Statistics.
	• On the basis of Article 8 of the Statistics Act and Articles 5 to 8 of the Statistics Regulation, the Office of Statistics maintains the Liechtenstein Business Register (LUR) in cooperation with the Migration and Passport Office, the Office of Economics Affairs and the Office of Justice. The LUR serves statistical purposes as well as personal and business-related tasks in the public interest. The LUR comprises companies and groups of companies governed by private and public law, which have workplaces and employees in Liechtenstein, as well as companies that employ persons residing in Liechtenstein. Companies and workplaces include, for example, the location as well as the type of economic activity (economic sector, sector), employees, the level of employment and place of work, as well as personal characteristics of the employees.
Sub-national	

Persons and Companies Act

The Civil Register and the Commercial Register are both covered by the Persons and Companies Act (PGR) of 20 January 1926. In the case of the Commercial Register, the act states that the register contains data considered as facts from the previous trade, cooperative, association, institutional, foundation and property law registers, and other similar registers. The Commercial Register may be kept on paper or by electronic means. The law also regulates the various registration requirements for the Civil Register, such as the right to registration, the effects of the registration, the issue of transcripts and certificates, and the obligations of the parties. Furthermore, it identifies the authority in charge and its obligations, corresponding mostly to registering births, marriages and deaths, and complying with the methods of registration.

Data Platforms and Portals

The following table lists Liechtenstein's data platforms and portal infrastructures:

National Archives	The National Archives stand for the preservation of archive records to safeguard the legal security and history of Liechtenstein and act as the country's memory. It ensures that legally and historically relevant documents are preserved as unaltered and authentic as possible so that they can be made permanently available for historical, scientific, political, economic, social, cultural, administrative and legal purposes. The publication platform of the National Archives (e-archiv.li) publishes records, primary sources and editions of selected archival material from the holdings of the Liechtenstein State Archives and other archives. It is managed by the Office of Cultural Affairs. The Historical Society for the Principality of Liechtenstein is involved in the publication of sources, which is why it is also listed as a partner.
Liechtenstein Legal Gazette	Gesetze.li is a database where all the current State law and State contract law can be accessed in a consolidated form. Consolidated legislation is for information purposes only and has no legal effect. The Liechtenstein Legal Gazette is also published on gesetze.li. Since 1 January 2013, only the electronically signed version of the Liechtenstein Legal Gazette is accepted as authentic. The Gesetze.li database falls under the responsibility of the Government Legal Services.
Portal of the Principality of Liechtenstein	In January 2002, the Portal of the Principality of Liechtenstein was publicly launched. The portal provides general information on government, economy, education and tourism. Liechtenstein Marketing is responsible for marketing the Principality of Liechtenstein as an economic centre and tourism destination and is responsible for the Portal of the Principality of Liechtenstein.
Statistics Portal Liechtenstein	In the summer of 2022, the Statistics Portal was published. In the Statistics Portal a comprehensive range of reliable, up-to-date statistical data and analyses from almost all areas of life are provided. The information offered also includes statistics that show developments over longer periods of time and document changes in all areas of life.
Portal of the Liechtenstein National Administration	In September 2023, the Serviceportal (2.0) was launched. The Serviceportal 2.0 is the updated version of the Serviceportal 1.0. It includes an improved offer for private individuals as well as the redesign of the website of the official offices. In 2024, the portal complies with the certification of accessibility WCAG 2.1. The structure and implementation of the portal follow Regulation (EU) 2018/1724.
Government Portal	In November 2023, the government revised the Government Portal layout and aligned the design with the style guide of the Liechtenstein National Administration.
Labor Market Service Portal	The Labor Market Service Liechtenstein (AMS FL) is a division of the Office of Economic Affairs and is responsible for job seeker placement and combating unemployment in Liechtenstein. In addition to general information about labour market services, the internet portal contains important documents which can be downloaded, as well as current labour market data, statistics, legal notices and useful links.
liechtenstein.bewegt	liechtenstein.bewegt is an initiative of the Liechtenstein government which is implemented by the Office of Public Health. The main idea of the initiative is that physical movement is the most natural and effective way to invest in one's own health. Liechtenstein is moving and the online platform "bewegt.li" brings together 'movement providers' and 'movement seekers'.

Data Protection Authority Portal	Under the new data protection legislation, information and advice are two of the core tasks of the Data Protection Authority. The Portal offers documents, up-to-date information, contact forms, legal notices and other useful links.
Family Portal	On the Family Portal the government provides information and offers about family life in Liechtenstein. More specifically, the Family Portal provides information on questions about the family and supports young families in reconciling family and work life. The information is divided according to family phases and within the family phase by topics.
Financial Market Authority Liechtenstein	As an integrated and independent supervisory body, the Financial Market Authority (FMA) supervises the financial market participants of Liechtenstein's financial centre. On the portal, financial market participants will find documents, up-to-date information, contact forms, legal notices and useful links.
Landtag Portal	The *Landtag* is the Parliament of the Principality of Liechtenstein. On its portal visitors will find documents, up-to-date information, contact forms, legal notices and useful links.
Procurement Portal Platform	With the Procurement Portal Platform, the offices and staff offices of the Liechtenstein National Administration and government carry out public procurement in accordance with legal requirements.

Cross-border Infrastructures

The following table lists the European cross-border infrastructures which Liechtenstein is part of:

European Business Registry	Liechtenstein is a member of the European Business Registry Association (EBRA), formed in January 2019, through the coalition of the European Business Register (EBR) and the European Commerce Registers' Forum (ECRF).
EUCARIS	The Principality of Liechtenstein is a participant in EUCARIS and provides vehicle and driving licence information for the exchange of information based on the EUCARIS platform and technology. Liechtenstein also uses EUCARIS on the basis of bilateral agreements with Switzerland for the exchange of ownership and owner data for traffic fines.
TESTA	The National Administration of Liechtenstein uses the Network of Trans-European Telematics Services between Administrations (TESTA) thus enabling the Liechtenstein institutions to join the EU-wide service infrastructure of the European Union to ensure cross-border exchange of information and support related EU policies.
Cross-border Platforms	Liechtenstein uses cross-border platforms with continuous optimization, including: — AIA: Liechtenstein financial institutions transmit reports to the Tax Administration under the Automatic Exchange of Information (AIA). The Tax Administration then forwards the information received to the competent foreign tax authority. — FATCA: Liechtenstein signed a Model 1 FATCA agreement on 16 May 2014. Under the Model 1 agreement, financial institutions report accounts of U.S. persons to the Tax Administration, which forwards this information to the U.S. Tax Administration (IRS). Reporting Liechtenstein financial institutions must register with the IRS and obtain a GIIN (Global Intermediary Identification Number). — ASTA: Pursuant to Article 3 of the Law of 8 November 2013 on the Agreement between Liechtenstein and Austria on cooperation in the field of taxation (Implementation Act), the paying agencies are obliged to register

	with the tax administration any assets managed in Liechtenstein, provided that they hold or manage the assets of a data subject.
eIDAS Node	Liechtenstein operates an eIDAS node according to the eIDAS Regulation on electronic identification and trust services (eIDAS). The eIDAS node allows electronic identities (eIDs) from different EU countries to be used safely and reliably.
BRIS	Liechtenstein is integrated into the EU's BRIS, which stands for Business Registers Interconnection System. It is a link between the business registers of all Member States of the European Union as well as Iceland, Liechtenstein and Norway. It allows users to quickly and easily find information about companies in these countries.

4. Digital transformation of public services

Digital Public Services for Citizens

eInvoicing

eInvoicing Legislation

The Liechtenstein National Administration only accepts invoices for public contracts above the thresholds set in Article 49b of the Public Procurement Act (ÖAWG). Invoices are accepted in XML format or as PDF (preferred option). Invoices in XML format must comply with the European standard for electronic invoicing, contain the core elements pursuant to Article 44a of the ÖAWG and use a syntax published in the Official Journal of the European Union.

eInvoicing

The eInvoicing infrastructure was implemented in 2018 based on Commission Implementing Decision (EU) 2017/1870.

eHealth and Social Security

Electronic Health Dossier

In January 2022, the Electronic Health Dossier Act(EGDG) came into force in Liechtenstein, followed by the corresponding regulation in December 2022. These texts stipulate that certain health care providers are obliged to store medical data and information in the Electronic Health Dossier (eGD) in the case of treatment of health-insured persons (Article 19(2) and 5(2) of the ECDG). This includes doctors, the Liechtenstein State Hospital, Liechtenstein's old-age and medical assistance structures, pharmacists, chiropractors, dentists and other health care institutions within the meaning of the Health Act (e.g. medical laboratory) (Article 2(2)(c) of the EGDG). However, this obligation applies only if the health-insured person has not objected to the use of the eGD (Article 6 of the ECDG).

eHealth Strategy Liechtenstein

The eHealth Strategy of the Principality of Liechtenstein laid the foundations for the sustainable development of an IT-based and modern health care system in the Principality of Liechtenstein. The eHealth strategy was approved by the government in 2012. eHealth also plays a central role in the Liechtenstein Digital Agenda, which was adopted in 2019.

Electronic Health Record

An Electronic Health Dossier (eGD) was established for each person insured in Liechtenstein as of January 2023. The connection of the healthcare providers took place in the middle of 2023. On the one hand, the EGD is based on the Electronic Health Dossier Act (EGDG). On the other hand, provisions in this act are further specified in the Electronic Health Dossier Regulation (EGDV). Together, these two texts form the legal basis. The eGD aims to improve the treatment of patients and increase the quality of healthcare in Liechtenstein. By storing health data digitally, doctors and other healthcare providers can quickly and easily access all relevant information, resulting in better diagnosis and treatment.

Other Key Initiatives

Law on eCommerce

The Law on eCommerce (eCommerce-Gesetz, ECG; register number 215.211.7) came into effect in June 2003. This law transposes the European Directive 2000/31/EC on certain legal aspects of information society services, in particular on electronic commerce in the Internal Market (Directive on electronic commerce).

Law on Electronic Communication

The Office for Communication (*Amt für Kommunikation*) was instituted on 1 January 1999, constituting the regulatory authority for telecommunications services.

The legislation for communications was updated in September 2004 by the regulations for mobile telecommunications.

On 6 June 2006, the Law on Electronic Communication (*Kommunikationsgesetz,* KomG; register number 784.10) came into force. This legal framework concerns the provision of broadcasting and information society services, i.e. online services.

Liechtenstein fully implemented the 2002 EU regulatory framework on electronic communications. Regulation (EU) 2018/1971 (BEREC) and Directive (EU) 2018/1972 (EECC) have been incorporated into the EEA Agreement by Joint Committee Decisions No. 274/2021 and 275/2021. Representatives from Liechtenstein participate fully in the work of the BEREC Board of Regulators, the BEREC working groups and the Management Board of the BEREC Office.

Payment Service

The ePayment enables users (natural persons and legal entities) of the services of the Liechtenstein National Administration to pay fees and charges electronically. ePayment was set up as a basic service and was made available to the entire administration for integration in spring 2022. Since November 2023, customers are also able to choose from a selection of different cryptocurrencies such as Bitcoin, ETH, USDT, and USDC and use them to pay for services.

LLV eGovernment eService Account

In 2022, a project (service account) was launched to offer all private individuals and companies the opportunity to obtain personalised accounts.

These accounts provide users with centralised, interactive access to personal or company-specific information, while allowing them to initiate and/or track official matters. Access to the accounts will be secure and easy with eID.li.

Digital Public Services for Businesses

Public Procurement

eProcurement Regulations

The public procurement sector is under the jurisdiction of the Office of Public Procurement (*Fachstelle Öffentliches Auftragswesen,* FAW). There is currently a full set of public procurement regulations supported by full online information and forms to be used for nearly all kinds of public contracts. Moreover, being an EEA Member State, Liechtenstein implemented the European public procurement Directives 2014/23/EU, 2014/24/EU and 2014/25/EU, which were incorporated into the EEA Agreement with Joint Committee Decision No. 97/2016, which entered into force on 1 January 2017.

E-procurement[+] - Procurement Portal Platform

The offices and departments of the Liechtenstein National Administration and Government carry out public procurement with the Procurement Portal Platform in accordance with legal requirements.

Digital Inclusion and Digital Skills

School ICT Project

The Liechtenstein Curriculum (LiLe) ensures that children and adolescents at school acquire sufficient computer science and media skills to operate successfully in an increasingly digitalised world. The School ICT Project lays the foundations for skill acquisition by providing all schools with modern IT resources (WLAN, mobile devices, software, etc.). In the framework of the School ICT Project students are equipped with digital end devices - tablets or laptops.

This general overhaul of school informatics opens up completely new possibilities for schools of methodological and didactic approach to teaching as well as individualised and independent learning. The new information and communication technologies should be seen as tools that will complement well-established forms of teaching in the future.

5. Trust and Cybersecurity

eID and Trust Services

Law on Electronic Signatures

On 1 July 2019, the Act on Electronic Signature and Electronic Transactions of 27 February 2019 (LGBl No. 2019.114) entered into force. Furthermore, the Regulation on Electronic Signature and Electronic Transactions of 9 July 2019 (LGBl No. 2019.180) entered into force on the same day.

The previous legislation on eSignatures (*Signaturgesetz*, SigG; register number 784.11) had been in force since September 2003. Among other things, the law transposed the European Directive 1999/93/EC on a Community framework for Electronic Signatures. It was then supplemented by the Regulation on Electronic Signatures of June 2004 (SigV; register number 784.111).

eIDAS Regulation

In April 2018, the government adopted the Consultation Report on the Adoption of a Law implementing the Regulation on electronic identification and trust services for electronic transactions in the internal market (eIDAS Regulation), thus laying the foundation to enable citizens and businesses to conduct secure transactions over the internet. The eIDAS Regulation creates a uniform framework for the cross-border use of electronic identification means and trust services across Europe. Trust services include electronic signatures, electronic seals, electronic time stamps, electronic registered mail, website authentication, as well as validation and preservation services.

The Joint Committee Decision No. 22/2018, incorporating Regulation (EU) No. 910/2014 (eIDAS Regulation) into the EEA Agreement, entered into force on 1 June 2019. Since then, Regulation (EU) No. 910/2014 applies in Liechtenstein.

eID.li and eIDAS-Notification

On 29 April 2020, the Liechtenstein government introduced the new digital identity - the eID.li. eID.li represents a core element for the secure use of electronic services and, thus, a milestone on the path to digitisation, allowing natural persons to securely identify and register for electronic services. This digital identity can be used by all citizens, residents of Liechtenstein and foreign nationals.

eID.li was designed from the outset to be interoperable with other European eID systems. It must therefore meet the technical, organisational and procedural security requirements in accordance with Regulation (EU) No. 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market. As proof of this, eID.li was subjected to a peer review by the competent EU body, the eIDAS Cooperation Network, in 2022. In December 2022, the peer review process was successfully completed and subsequently Liechtenstein notified two separate electronic identification schemes (eID.li Class A and eID.li Class B) to the European Commission. In April 2023, the notification of the eID.li was published by the European Commission in the Official Journal of the EU.

Cybersecurity

National Cybersecurity Unit

The National Cybersecurity Unit is the central office for all matters related to cyber risk in the Principality of Liechtenstein. Its tasks include:

- Raising awareness on cyber risks among the population and the economy;
- Advising and supporting authorities, companies and individuals on cybersecurity issues;
- Coordinating the activities of the various actors in the field of cybersecurity;
- Developing and implementing strategies and measures to improve cybersecurity in Liechtenstein;
- Cooperating with international organisations in the field of cybersecurity;
- Helping protect Liechtenstein from cyber-attacks; and
- Ensuring the country's digital security.

Data Protection Act

In October 2018, the government of Liechtenstein implemented a new Data Protection Act (*Datenschutzgesetz*). The purpose of this act is to establish equivalence between the legal situation in Liechtenstein and the European General Data Protection Regulation (GDPR), protecting citizens' fundamental rights with regard to the use of their personal data. Afterwards, Law No. 389 of 30 September 2020 amended Article 31(2)b of the Data Protection Act.

Data Protection Regulation

The Data Protection Regulation lays down common rules to implement the European General Data Protection Act and Regulation (EU) 2016/679. More specifically, the regulation governs, among other things, the data processing activities performed by public bodies by outsourcing to or on behalf of third parties, the notification of video surveillance and the accreditation procedures of certification bodies. On 1 December 2020, Law No. 455 amended the Data Protection Regulation by modifying the list of third countries and international organisations considered to have an adequate level of data protection.

Cybersecurity Law and Cybersecurity Regulation

The Cybersecurity Law (CSG) of May 2023, and later the Cybersecurity Regulation (CSV) of September 2023, establish measures to ensure a high level of security for the network and information systems of essential service operators in sectors such as energy, transport, banking, finance, healthcare, drinking water supply, distribution, and digital infrastructure. It also covers providers of digital services. However, certain security and notification requirements specified in the law do not apply to companies under the scope of Directive (EU) 2018/1972, Articles 40 and 41, or trust service providers subject to the requirements of Regulation (EU) No 910/2014, Article 19.

6. Innovative technologies

Artificial Intelligence (AI)

📢 Guideline on the Use of Artificial Intelligence for National Administration

In December 2023, upon government's request, a basic paper was drawn up on the use of artificial intelligence in the Liechtenstein national Administration and government. This paper is a guide for employees on the use of publicly available generative AI platforms. It guides employees to use these technical means in a responsible, compliant and safe manner and brings them closer to the functioning and limits of the generative AI. It also shows them how to increase their work productivity and quality by correctly applying AI platforms.

Distributed Ledger Technologies

📢 Blockchain Partnership

Since 1 February 2019, the Principality of Liechtenstein is a member of the European Blockchain Partnership. The main objective of the partnership is to support and improve the delivery of cross-border digital public services by deploying a common European Blockchain Services Infrastructure with a shared governance model.

📢 International Association for Trusted Blockchain Applications

Since 2020, Liechtenstein has been actively engaged in various working groups of the International Association for Trusted Blockchain Applications (INATBA). Launched in 2019 by the European Commission, INATBA advocates for blockchain and DLT adoption in Europe and globally. Recognized for its influence on regulatory frameworks such as MICA, TFOR, and eIDAS, INATBA plays a crucial role in shaping policy and promoting technology acceptance. In 2024, Liechtenstein has been appointed Chair of INATBA`s Governmental Advisory Board.

⚖️ Blockchain Act

The Law on Tokens and Trustworthy Technology (TT) Service Providers (TVTG) entered into force on 1 January 2020. This law established the legal framework for all transaction systems based on TT. Particularly, the TVTG governs: (i) the basis in terms of civil law with regard to tokens; (ii) the representation of rights through tokens; (iii) the transfer of said rights; (iv) the supervision of TT service providers; and (v) the rights and obligations of TT service providers.
The objective of the law is twofold. First, the act aims to guarantee trust in digital legal communication while ensuring the protection of users in TT systems. Second, the law seeks to create excellent, innovation-friendly and technology-neutral framework conditions for rendering services concerning TT systems.
On 30 September 2020, Law No. 414/2020 amended the TVTG. This law includes amendments concerning the general reform of the insolvency law.
In 2023, the TVTG was revised in order to incorporate the experiences of the previous years and to implement the Regulation on Markets in Crypto-assets (MiCAR). The amending law came into force on 1 February 2024.
With the entry into force of MiCAR in the EEA, certain service providers currently registered under the TVTG will be regulated through MiCAR. The adjustments of the TVTG serve to prepare the market participants for MiCAR with the aim of ensuring legal certainty and a smooth transition.

Big Data

No particular initiatives have been reported in this field to date.

Cloud & Edge Computing

No particular initiatives have been reported in this field to date.

Internet-of-Things (IoT)

No particular initiatives have been reported in this field to date.

Quantum Computing

No particular initiatives have been reported in this field to date.

Gigabit and Wireless High-speed Networks

No particular initiatives have been reported in this field to date.

GovTech

No particular initiatives have been reported in this field to date.

7. Digital Public Administration Governance

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

National

Ministry of General Government Affairs and Finance

The policy and strategy on eGovernment are drawn up by the Prime Minister through the Ministry of General Government Affairs and Finance (*Ministerium für Präsidiales und Finanzen*), which has the constitutional and administrative responsibility for planning the public information strategy based on the principles of timeliness and balance.

Office of Information Technology

The Office of Information Technology is responsible for the coordination of all eGovernment activities, including the National Administration Portal of Liechtenstein (LLV eGovernment Portal). The Office is also in charge of the implementation of eGovernment activities and the use of modern information and communication technologies (ICTs) in public administration in order to offer easier and quicker services to citizens.
Furthermore, the Office provides information technology support to all government offices and departments with the broad mission to enable them to achieve their objectives in the most efficient and effective manner. It also supports more than 1 000 employees in public authorities, ensuring the efficient provision of user-centric services as well as the smooth flow of administrative activities.

Liechtenstein National Administration

The main body responsible for interoperability activities is the country's National Administration.

Data Protection Authority

The Data Protection Authority (*Datenschutzstelle*) is the authority responsible for the safeguard and the application of the provisions of the Data Protection Act and the accompanying legislative framework. It also monitors and provides registration of relevant data collections and data communications.

National Cybersecurity Unit

Between 2020 and 2021, the government of the Principality of Liechtenstein established a new National Cybersecurity Unit. The National Cybersecurity Unit is the central office for all matters related to cyber risks. It serves as a hub and intermediary for the general public, companies, operators of critical infrastructure and authorities.

Office for Financial Market Innovation and Digitalization

The Office for Financial Market Innovation and Digitalization (SFID) serves as contact point for all topics related to innovation and companies in the financial market environment. The SFID supports companies in their innovation process (entrepreneur service), works on the further development of the governmental and legal framework for innovation, monitors international developments and cultivates an innovation ecosystem and knowledge exchange between market participants, public authorities and the scientific community.
Since 2022, the SFID is responsible for the adoption of European legal acts in the field of digitalization which are to be incorporated into the EEA Agreement. In this context the SFID

participates in the corresponding EFTA and EU working groups and coordinates the necessary implementation measures in Liechtenstein.

Subnational (Federal, Regional and Local)

Municipalities

As the union of its two regions of Vaduz and Schellenberg, the Principality of Liechtenstein constitutes an indivisible and inalienable whole. The region of Vaduz (Oberland, Upper Country) consists of the municipalities of Vaduz, Balzers, Planken, Schaan, Triesen and Triesenberg; the region of Schellenberg (Unterland, Lower Country) consists of the municipalities of Eschen, Gamprin, Mauren, Ruggell and Schellenberg.

By means of a municipal code, the municipalities specify the rights and duties of their inhabitants, the organisation of the authorities and the procedure for interacting with the authorities. Since 1998, all municipalities have a municipal code tailored to their needs.

As far as eGovernment is concerned, the State and municipal levels are independent according to legislation.

8. 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.

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).

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 Digital Services (DG DIGIT) and the Directorate General for Communications Networks, Content & Technology (DG CONNECT).

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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