Digital Public Administration factsheet 2020

Finland

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1 | Country Profile

1 Country Profile

1.1 Basic data

Population: 5 517 919 (2019)
GDP at market prices: 240 557 (2019)
GDP per inhabitant in PPS (Purchasing Power Standard EU 27=100): 111 (2019)
GDP growth rate: 1.1% (2019)
Inflation rate: 1.1% (2019)
Unemployment rate: 6.7% (2019)
General government gross debt (Percentage of GDP): 59.4% (2019)
General government deficit/surplus (Percentage of GDP): -1.1% (2019)
Area: 338 400 km²
Capital city: Helsinki
**Official EU language**: Finnish, Swedish
Currency: Euro

Source: Eurostat (last update: 26 June 2020)

1.2 Digital Public Administration Indicators

The following graphs present data for the latest Digital Public Administration Indicators for Finland compared to the EU average. Statistical indicators in this section reflect those of Eurostat at the time the Edition is being prepared.

Percentage of individuals using the internet for interacting with public authorities in Finland
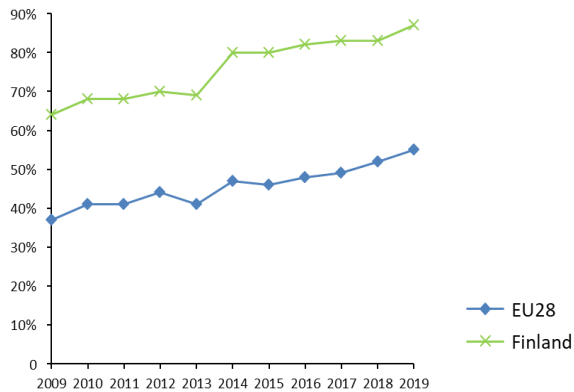
Source: Eurostat Information Society Indicators

Percentage of individuals using the internet for obtaining information from public authorities in Finland
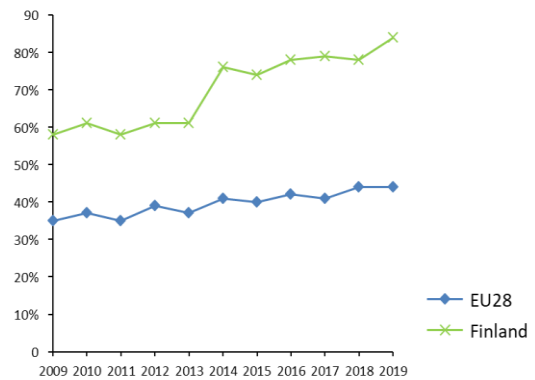
Source: Eurostat Information Society Indicators

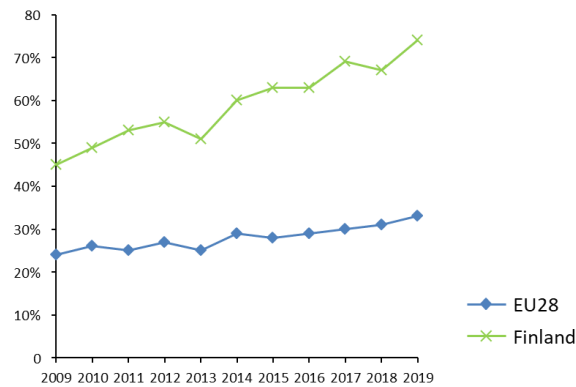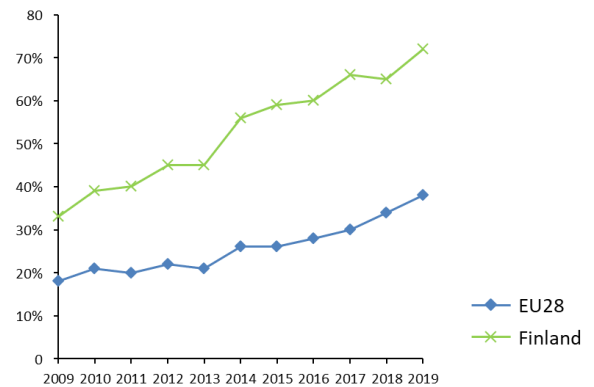Percentage of individuals using the internet for downloading official forms from public authorities in Finland

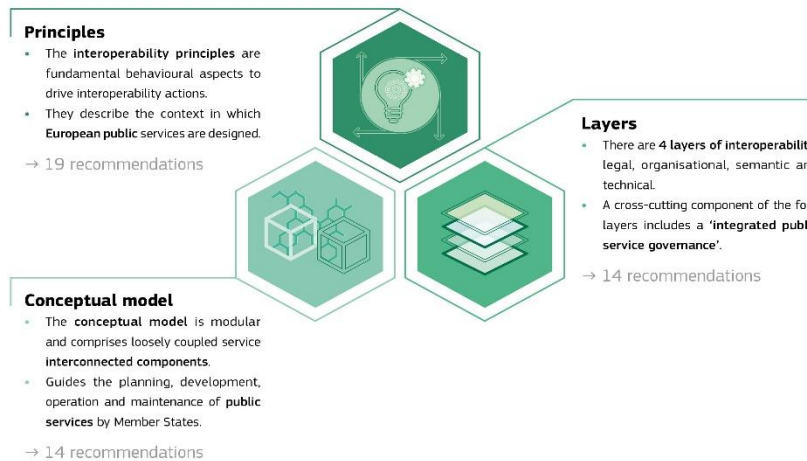Source: Eurostat Information Society Indicators

Percentage of individuals using the internet for sending filled forms to public authorities in Finland

Source: Eurostat Information Society Indicators

1.3 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. The picture below represents the three pillars of the EIF around which the EIF Monitoring Mechanism was built to evaluate the level of implementation of the EIF within the Member States. It is based on a set of 68 Key Performance Indicators (KPIs) clustered within the three main pillars of the EIF (Principles, Layers and Conceptual model), outlined below.

Principles
- The **interoperability principles** are fundamental behavioural aspects to drive interoperability actions.
- They describe the context in which **European public** services are designed.

→ 19 recommendations

Layers
- There are **4 layers of interoperability**: legal, organisational, semantic and technical.
- A cross-cutting component of the four layers includes a **'integrated public service governance'**.

→ 14 recommendations

Conceptual model
- The **conceptual model** is modular and comprises loosely coupled service **interconnected components**.
- Guides the planning, development, operation and maintenance of **public services** by Member States.

→ 14 recommendations

Source: European Interoperability Framework Monitoring Mechanism 2019

For each of the three pillars, a different scoreboard was created to breakdown the results into their main components (i.e. the 12 principles of interoperability, the interoperability layers and the components of the conceptual model). The components are evaluated on a scale from one to four, where one means a lower level of implementation, while 4 means a higher level of implementation. The graph below shows the result of the first EIF Monitoring Mechanism data collection for Finland in 2019. It is possible to notice an overall good performance of the country, with particularly positive results within the third scoreboard (Interoperability principles). The areas of improvements are concentrated within the second scoreboard and are related to the principle of technical interoperability.
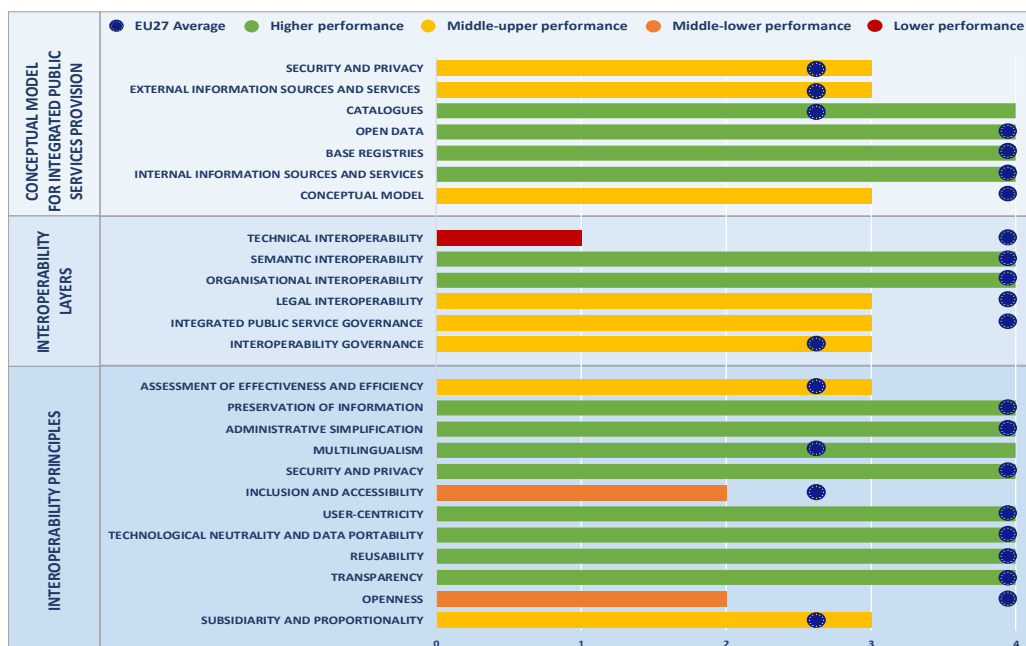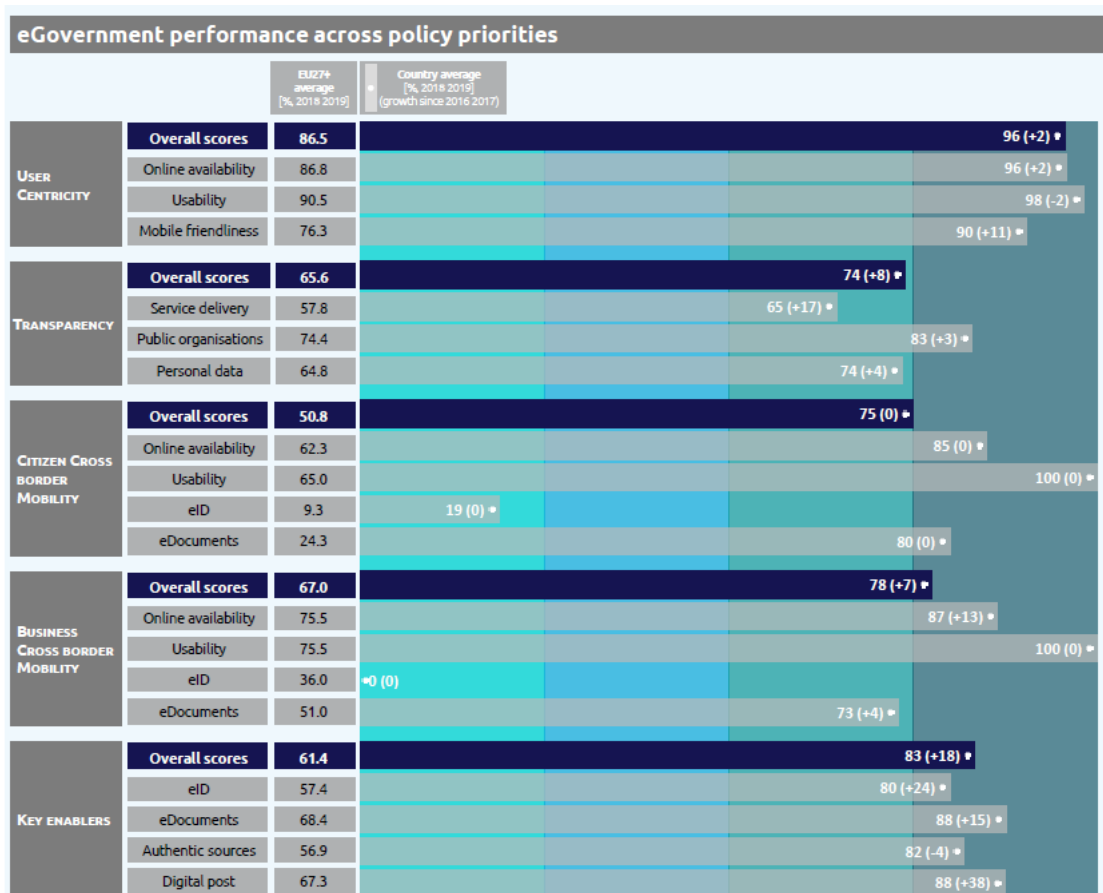

Source: European Interoperability Framework Monitoring Mechanism 2019

1.4 eGovernment State of Play

The graph below is the result of the latest eGovernment Benchmark report, which evaluates the priority areas of the eGovernment Action Plan 2016-2020, based on specific indicators. These indicators are clustered within four main top-level benchmarks:

- **User Centricity** – indicates the extent to which a service is provided online, its mobile friendliness and usability of the service (in terms of available online support and feedback mechanisms).
- **Transparency** – indicates the extent to which governments are transparent about (i) the process of service delivery, (ii) the responsibilities and performance of public organisations and (iii) the personal data processed in public services.
- **Cross-Border Mobility** – indicates the extent to which users of public services from another European country can use the online services.
- **Key Enablers** – indicates the extent to which technical and organisational pre-conditions for eGovernment service provision are in place, such as electronic identification and authentic sources.

The 2020 report presents the biennial results, achieved over the past two years of measurement of all eight life events used to measure the above-mentioned top-level benchmarks. More specifically, these life events are divided between six 'Citizen life events' (*Losing and finding a job*, *Studying*, *Family life*, all measured in 2012, 2014, 2016 and 2018, and *Starting a small claim procedure*, *Moving*, *Owning a car*, all measured in 2013, 2015, 2017 and 2019) and two 'Business life events' (*Business start-up*, measured in 2012, 2014, 2016 and 2018, and *Regular business operations*, measured in 2013, 2015, 2017 and 2019).

eGovernment performance across policy priorities	EU27+ average [%, 2018 2019]	Country average [%, 2018 2019] (growth since 2016 2017)				
USER CENTRICITY	**Overall scores**	**86.5**				96 (+2)
	Online availability	86.8				96 (+2)
	Usability	90.5				98 (-2)
	Mobile friendliness	76.3				90 (+11)
TRANSPARENCY	**Overall scores**	**65.6**			74 (+8)	
	Service delivery	57.8			65 (+17)	
	Public organisations	74.4				83 (+3)
	Personal data	64.8			74 (+4)	
CITIZEN CROSS BORDER MOBILITY	**Overall scores**	**50.8**			75 (0)	
	Online availability	62.3				85 (0)
	Usability	65.0				100 (0)
	eID	9.3	19 (0)			
	eDocuments	24.3			80 (0)	
BUSINESS CROSS BORDER MOBILITY	**Overall scores**	**67.0**			78 (+7)	
	Online availability	75.5				87 (+13)
	Usability	75.5				100 (0)
	eID	36.0	0 (0)			
	eDocuments	51.0			73 (+4)	
KEY ENABLERS	**Overall scores**	**61.4**				83 (+18)
	eID	57.4			80 (+24)	
	eDocuments	68.4				88 (+15)
	Authentic sources	56.9			82 (-4)	
	Digital post	67.3				88 (+38)

Source: eGovernment Benchmark Report 2020 Country Factsheet

2 | Digital Public Administration Highlights

2 Digital Public Administration Highlights

Digital Public Administration Political Communications

In the Programme of Prime Minister Sanna Marin's Government, digitalisation is identified as one of the main objectives. According to the Programme, public services are to be made available digitally to individuals and businesses by the year 2023. Key measures for increasing the digitalisation of both the public and private sectors include opening up public information resources, supporting new solutions to identify and manage digital identity and developing cyber security capabilities, for example. The AuroraAI national artificial intelligence programme was launched on 6 February 2020 with the aim of bringing people and services together in a better way. Further measures will be announced later in spring.

Digital Public Administration Legislation

The Act on Information Management in Public Administration (906/2019) entered into force on 1 January 2020, defining the entire lifecycle of information in Finnish public administration. The Act was part of a reform replacing the Act on Information Management Governance in Public Administration (634/2011) and over thirty other legislative acts. As part of the reform, an Information Management Board of Public Administration was set up in the Ministry of Finance as an independent authority.

Digital Public Administration Governance

The Digital and Population Data Services Agency (the Finnish Digital Agency) was established on 1 January 2020 with the merging of the Population Register Centre, the Local Register Offices and the Steering and Development Unit for the Local Register Offices operating under the Regional State Administrative Agency for Eastern Finland. The Agency belongs to the Ministry of Finance's branch of government and is responsible for the development of eGovernment services as well as promoting the overall digitalisation of society, securing the availability of data, and providing services for the life events of its customers.

The Government ICT Centre Valtori is an agency operating in the administrative branch of the Ministry of Finance. Valtori provides sector-independent basic ICT services for the central government as well as information and data communications technology services and integration services that meet the requirements of high preparedness and security. The Ministry of Finance has given a government proposal for removing Valtori's board of directors with the intention of streamlining the steering of Valtori to correspond with customer needs and governance.

Digital Public Administration Infrastructure

The situational awareness and collaboration tool Virve, the administrative security radio network based on Tetra technology, is used by authorities and security operators for efficient and secure communications. Virve is an essential part of the daily cooperation between authorities as well as in crisis situations, also across organisational boundaries. The Next Generation Virve 2.0 is a means of ensuring communication and cooperation between authorities and other partners across organisational borders into the future. It also entails the introduction of a higher service standard, as the transfer to broadband, estimated to take place in 2022, will make it possible to transfer video material, images and data.

Other developments in 2020–2021 include the next version of the X-Road data exchange between Finland and Estonia, called X-Road 7. X-Road technology provides the main data exchange solution for Finnish public sector organisations. It is managed by the Nordic Institute for Interoperability Solutions (NIIS).

3

Digital Public Administration Political Communications

3 Digital Public Administration Political Communications

3.1 Specific political communications on digital public administration

Government Programme of Prime Minister Marin

On 10 December 2019, a new government led by Prime Minister Sanna Marin was appointed by the President of the Republic of Finland. Prime Minister Sanna Marin's Government adopted Prime Minister Rinne's Government Programme 'Inclusive and competent Finland – a socially, economically and ecologically sustainable society' as its Government Programme. This will be achieved by better cooperation between the public and the private sectors, with the final goal of improving technology and digitalisation capabilities. In addition, the government aims to make all public services available digitally to individuals and businesses by 2023.

2018 Government Report to Parliament on Information Policy and Artificial Intelligence

In December 2018, the government submitted a report to Parliament on Information Policy and Artificial Intelligence, which highlighted several policy issues, with a particular focus on the ethics of information policy and artificial intelligence; it marked the beginning of a new and more cohesive policy response to Digital Public Administration . The Parliament approved the report in March 2019 with four statements. In addition, the Parliament obliged the government to continue its work on ethical information policy and artificial intelligence and to formulate them in more concrete terms. It also required the government to take necessary actions to increase citizens' understanding of digitalisation and artificial intelligence and strengthen the human competence in these matters at different educational levels and in different scientific branches.

Open Government Action Plan

The IV Finnish Open Government Action Plan (2019–2023) emphasises openness and inclusion in three different dimensions: openness as a shared value, a strong legal foundation to openness and the continuous development of openness. These three themes encompassed the following commitments for the implementation phase:
- lasting openness by pervading all government actions and development measures;
- the implementation of the Open Government Strategy, which will determine the long-term direction and the objectives to be used as the basis for building future action plans;
- creation of a Transparency Register that will offer citizens information on the parties that seek to influence decision-making;
- commitment and measures on open data.

The realisation of these commitments will be monitored and evaluated during the implementation of the plan and after its finalisation.

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

3.3 Key enablers

3.3.1 Access to public information

Act on the Openness of Government Activities

Besides the above-mentioned opening up of public resources, the government will examine the need to update the Openness of Government Activities Act to extend its application to data and information more broadly. The principles of this Act will be extended, if possible, to publicly held companies, while the government will also assess whether the scope of its application should be broadened to cover legal entities owned or controlled by the public sector.

3.3.2 eID and Trust Services

Government Programme of Prime Minister Marin

The Government Programme aims to increase the digitalisation ability of both public and private sectors, which includes the support of new solutions to identify and manage the digital identity. The government will carry out a reform of personal identity codes, which in their current form were introduced in the 1960s and contain the holder's date of birth and gender. As part of the reform, gender will no longer be specified in the personal identity code, and other identification solutions will be examined, including the role of the State.

3.3.3 Security aspects related to digital public administration

Cyber Security Strategy

The Finnish Government published the updated national Cyber Security Strategy as a Government Resolution in October 2019. The strategy was prepared by the Security Committee of Finland. The Security Committee assists the Finnish Government and ministries in comprehensive security matters. The Committee monitors the Finnish security environment and the development of society, addition to proactively coordinating the preparation of comprehensive security initiatives.
The 2019 Cyber Security Strategy is based on the general principles of Finland's 2013 Cyber Security Strategy. The strategy and its implementation are also part of the implementation of the EU Cyber Security Strategy. The strategy defines key national objectives for the development of the cyber environment and the safeguarding of related vital functions.
The strategy focuses on three areas: international cooperation, better coordination of cyber security management, planning and preparedness, and development of cyber security competence. In addition, the government will create a cyber security development programme extending beyond its term of office, with the goal of improving the allocation of resources and the cooperation for cyber security. The programme will materialise national cyber security policies and clarify the overall picture of cyber security projects, research and development programmes.

3.3.4 Interconnection of base registries

Next steps in the Government Programme of Prime Minister Marin

The Government Programme contains policies devised to strengthen the interconnections of base registries. The Incomes Register will continue to exist and a new positive credit register will be introduced during the government term of office. There will be a deeper interconnection among base registries related to the built

environment and a national digital system designed to facilitate the transfer of contact and identification data to promote youth employment.

3.3.5 eProcurement

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

3.4 Domain-specific political communications

Government Report to Parliament on Spatial Data Policy

The Finnish Parliament approved the Government's Report on Spatial Data Policy in November 2018. The Spatial Data Policy report explains what kind of spatial information is needed in society and how to develop, manage and distribute it, and promote its use. The aim of the report is to compel all actors in the public sector to see to the interoperability of spatial data and access it in a way that it can be used by the public authorities and companies as efficiently as possible. At the same time a high standard of information security and personal data protection must be ensured.

Government Programme of Prime Minister Marin

The Government seeks to advance the transition to real-time economy and make Finland a lead market in this domain. To this end, substantial measures, such as the wide adoption of eInvoices and receipts, will be undertaken. The public sector will take the lead in introducing these practices.

3.5 Emerging technologies

Artificial Intelligence Programme (2017–2019)

The government of Prime Minister Juha Sipilä (2015–2019) made artificial intelligence one of its key priorities. The Minister of Economic Affairs Mika Lintilä launched the Artificial Intelligence Programme on 18 May 2017. In October of the same year, the programme presented the first eight key actions for making Finland one of the leaders in the application of artificial intelligence. The work was later supplemented with separate analyses and recommendations for measures on the future of work, ethics and security. The final report of the programme, submitted on 14 March 2019, included eleven themes in total as key factors with recommended guidelines on how to utilise artificial intelligence in Finland in an ethical manner. The report describes the results achieved during the programme period and provides a basis for the next stage in the years to come.

An extensive group of influencers and experts from different sectors of society, including business and industry, took part in formulating the Artificial Intelligence Programme. The approach adopted was called a network of networks; the idea was to quickly and flexibly include many different interest groups in the preparation work. The programme and its networks have taken Finland towards the age of artificial intelligence through the following key actions:

- enhance business competitiveness through the use of AI;
- effectively utilise data in all sectors;
- ensure that AI can be adopted more quickly and easily;
- ensure top-level expertise and attract top experts;
- make bold decisions and investments;
- build the world's best public services;
- establish new models for collaboration;
- make Finland a forerunner in the age of artificial intelligence;
- prepare for artificial intelligence to change the nature of work;
- steer AI development into a trust-based, human-centric direction;
- prepare for security challenges.

Based on the achievements and lessons learned, the final report presented key measures to be introduced during the next 12 months concerning, for example, clarifying the rules of how data is used, continuing of AI accelerator style operations and ensuring a human-centric adoption of AI in the public sector. In addition, the programme provided a vision of Finland in the age of artificial intelligence in 2025, a vision of a country that is competitive, able to attract talent and with highly-educated population consisting of well-informed and independent citizens.

National AuroraAI Programme

Based on the Artificial Intelligence Programme's key action, i.e. building the world's best public services, the Ministry of Finance launched a preliminary study entitled National AuroraAI Programme for the period between 15 September 2018 and 28 February 2019. The preliminary study examined what kinds of changes the harnessing of AI-based services necessitate in service provision and management and produced the first trial version of the AuroraAI network. The AuroraAI network aims to enable smooth interaction and communication between different services and platforms as the AI Programme's report of 2017 suggested.

The Government Programme of Prime Minister Sanna Marin states that the secure and ethically sustainable development of the AuroraAI network will be continued in order to make everyday life and business easier. On 6 February 2020, the Ministry of Finance launched the AuroraAI programme. Scheduled until the end of 2022, the programme lays the foundation for using artificial intelligence to bring services and people together in a better way. The AuroraAI programme aims to create a service model where, by using artificial intelligence, public services are arranged so that they support people in their life-events and in the way they organise their business activities in collaboration with service providers in other sectors.

The National AuroraAI Programme is based on cross-sectoral, open networking. This means that all public, private and third-sector operators interested in building a human-centric society in the age of artificial intelligence are openly invited to join the programme. The Ministry of Finance is responsible for guidance, funding and programme coordination. The Digital and Population Data Services Agency is responsible for the development of the AuroraAI network, which forms the basis for the programme.

4

Digital Public Administration Legislation

4 Digital Public Administration Legislation

4.1 Specific legislation on digital public administration

Information Management in Public Administration Act

The new Information Management in Public Administration Act (906/2019) was drafted in 2019 and entered into force on 1 January 2020. The new general law (lex generalis) defined the entire lifecycle of information in public administration. Initially, the areas covered were: design and imaging duties, information security requirements, the basics of case and service management registration, as well as provisions for the retention and archiving of data. As the project progressed, the archiving chapter was omitted.

The reform intended to ensure consistent management of the authorities' data sets as well as secure data processing. The purpose was to improve information management so that the authorities could provide their services in accordance with good administration and perform their duties effectively. In addition, the goal was also to promote interoperability between information systems and data resources.

The new Act replaces the Information Management Governance in Public Administration Act (634/2011) and in total over thirty legislative acts were modified in the reform process. The Information Management Board of Public Administration was set up as a part of the reform. The Board works within the Ministry of Finance as an independent authority.

Shared Support Services for eGovernment Act

The Shared Support Services for eGovernment Act (571/2016) along with the Ministry of Finance's Decree on the Provision of Certain Shared Support Services for eGovernment (607/2016) entered into force on 15 July 2016. In the Shared Support Services for eGovernment Act, the current responsibilities for providing support services for eGovernment were specified and in accordance with the national architecture for digital services.

The National Architecture for Digital Service Programme was completed in December 2017. The programme resulted in a new, major eService, which provides services to citizens, businesses and government organisations. The programme provided a new Data Exchange Layer (*Palveluväylä*) which was based on Estonian X-Road technology. The programme also produced, among other things, a new messaging service to citizens, a new eID-service, and an eAuthorisation service.

The purpose of the Act was to improve the availability, quality, data security, interoperability and delivery of public services, while promoting the effectiveness and productivity of public administration. The Act provided:

- for shared support services for eGovernment;
- the requirements that apply to them;
- the tasks related to providing them;
- the processing of personal and other data related to their provision;
- for the right and obligation to use the shared support services for eGovernment;
- the prerequisites for using the support services.

Provision of Digital Services Act

The purpose of the Provision of Digital Services Act (306/2019) is to promote the accessibility of digital services, thus improving everyone's access to digital services on an equal basis. Furthermore, the purpose is to promote the quality of public administration digital services. This law implements the Directive (EU) 2016/2102 of the European Parliament and of the Council on the accessibility of websites and mobile applications of public sector bodies, referred to as the Accessibility Directive.

4.2 Interoperability

Information Management in Public Administration Act

The Information Management in Public Administration Act (906/2019) includes a requirement for government agencies to utilise datasets of other government agencies whenever possible, if they by law have access to such data via electronic interfaces. Regular exchange of data between agencies has to be organised via electronic interfaces. The Act also prescribes to the Ministry of Finance a general coordination task of interoperability of public sector data sets. The Act entered into force on 1 January 2020.

4.3 Key enablers

4.3.1 Access to public information

Openness of Government Activities Act

The Openness of Government Activities Act (with amendments up to 1060/2002 included) provided for the general right to access any official document (including electronic records) in the public domain held by public authorities and private bodies that exercise public authority. Applicants are not required to provide reasons for their request or to verify their identity unless they are requesting personal or other confidential information. Replies have to be made within 14 days.
Restrictions apply also to non-official documents, documents relating to foreign affairs, criminal investigations, police matters, information concerning military intelligence and the armed forces, as well as confidential business activities.
Finland chose to implement Directive 2003/98/EC on the re-use of public sector information (PSI) by amending the Openness of Government Activities Act.
According to the Government Programme the need to update the Openness of Government Activities Act to extend its application to data and information more broadly will be examined.

4.3.2 eID and Trust Services

Strong Electronic Identification and Trust Services Act

The Strong Electronic Identification and Electronic Signatures Act entered into force on 1 September 2009. It was amended by including rules on the trust network of identification services and adapting national legislation to align with the requirements of the EU legislation on electronic identification and trust services. The amendments on the trust network of identification services became applicable in May 2017. The Strong Electronic Identification and Trust Services Act (2009) was founded on the principle that users must be able to rely on trustworthy information security and protection of privacy when using electronic identification services. The Act sets out to create common rules for the provision of sound electronic identification services, and to promote the provision of identification services and the use of trust services.

4.3.3 Security aspects

Information Management in Public Administration Act

Since the entry into force of the General Data Protection Regulation, the Personal Data Act (1999) has been repealed and several changes were made to the national legislation governing the processing of personal data. The new Information Management in Public

Administration Act (906/2019) set out the general regulations on information security requirements for handling public sector information.

Government Security Network Activities Act

The purpose of the Government Security Network Activities Act is to ensure, under normal circumstances, disruptive situations and exceptional circumstances, disruption-free functioning and continuity of communication between the State leadership and the key security authorities as well as other actors. In addition, it also aims to secure the availability, integrity and confidentiality of information required for decision-making and leadership.

The Act applies to the Government Security Network, the use of its services, and other security network activities. The security network is a state-owned and state-controlled public authority network – as referred to in the Information Society Code (917/2014) – that fulfils the requirements for high preparedness and security stipulated by legislative provisions or regulations implemented pursuant to legislation. The security network comprises the communications network and directly-related IT areas, hardware and other infrastructure, as well as the security network's shared services.

The Ministry of Finance is responsible for the steering and supervision of security network activities and the service provision with respect to general administration, strategy, finance, information and communications technology preparedness, readiness and security.

4.3.4 Interconnection of base registries

Information Management in Public Administration Act

The Information Management in Public Administration Act (906/2019) requires that government agencies utilise datasets, including base registries, of other government agencies whenever possible, if they by law have access to such data via electronic interfaces. The regular exchange of data between agencies has to be organised via electronic interfaces.

Population Information System and the Digital and Population Data Services Agency's Certificate Services Act

The Population Information System and the Digital and Population Data Services Agency's Certificate Services Act (661/2009) defines the Population Information System as a general, nationwide computerised basic register, which contains the information regarding persons, real estate, buildings and apartments, and defines also administrative and other similar regional divisions. Basic information related to the identification of people and buildings is registered in the Population Information System. Personal data recorded in the system include, for example, name, personal identification number, address, citizenship and native language, family relations and date of birth and death (if applicable). Building data registered include building code, location, owner, area, facilities and network connections, intended use and year of construction. Real estate data registered include real estate unit identifier, owner's name and address, and buildings located on the property.

The Digital and Population Data Services Agency and the State department of Åland maintain the Population Information System. At the beginning of 2020, the Population Register Centre and the network of local register offices were merged, and a new Digital and Population Data Services Agency started its operations as a national agency.

The registration of information is based on statutory notifications made by private individuals and public authorities. The information in the system is used for all information services and the management of Finnish society, including for the purposes of public administration, elections, taxation, judicial administration, research and

statistics. Businesses and other private organisations can also gain access to the information.

4.3.5 eProcurement

Public Procurement Act

The new acts on public procurement are the Public Procurement and Concession Contracts Act (1397/2016) and the Procurement and Concession Contracts by Entities operating in the Water, Energy, Transport and Postal Service Sectors Act (1398/2016). A new Public Procurement Act was approved in December 2016 and came into force on 1 January 2017. The new legislation was based on the EU public procurement directives replacing the previous national procurement legislation as of 2007. The new legislation provided contracting authorities with better opportunities to make procurement more innovative, sustainable, responsible, and of higher quality. Another objective for the new legislation was to reduce the administrative burden created by the tendering process for both contracting authorities and tenderers, by increasing the national threshold values and reducing the requirements of the procurement procedure.

eInvoicing Legislation

The public procurement process area is one of the key development areas in the 2014-2020 Government Financial Administration Strategy. The eInvoicing function is currently provided by the government free of charge.
The Electronic Invoicing for Contracting Entities and Traders Act (241/2019) implements Directive 2014/55/EU of the European Parliament and of the Council on electronic invoicing in public procurement, however, the law does not apply if the use of an electronic invoice could reveal confidential information or compromise the essential security interests of the state. The contracting entity and the trader shall be entitled, on request, to receive an invoice from another contracting entity or trader in the form of an electronic invoice. The latter is an extension of the scope of the directive.

4.4 Domain-specific legislation

Secondary Use of Health and Social Data Act

The purpose of the Secondary Use of Health and Social Data Act (552/2019) is to facilitate effective and safe processing and access the personal social and health data for steering, supervision, research, statistics and development purposes in the health and social sector. A second objective is to guarantee an individual's legitimate expectations as well as their rights and freedoms when processing personal data.
The Act facilitates the elimination of overlapping administrative burden related to the processing of permits, a smoother and faster processing thereof, a smoother collation of data from different registers, an efficient use of social and health materials in research and development activities and a clearer knowledge management by service providers.

4.5 Emerging technologies

Government Programme of Prime Minister Marin

The Finnish Government sees the use of new technologies as the key to success in the 2020s. To this end, legislation will be amended to promote the use of digitalisation and artificial intelligence when applying, handling and making decisions on social security benefits. A preliminary study on automated decision-making was completed by the Ministry of Justice on 14 February 2020.

5 | Digital Public Administration Governance

5 Digital Public Administration Governance

5.1 National

5.1.1 Policy

Ministry of Finance / Public Sector ICT Department

eGovernment is an integrated part of the government reform under the responsibility of the Ministry of Finance. The Ministry is tasked with policymaking and the development and guidance of state IT operations. In April 2011, a decree came into force which reinforced the Ministry's task in the steering of functions related to ICT. To this effect, the Public Sector ICT Department under the State Secretary of the Ministry of Finance was created by merging the three units existing at the time.

The Public Sector ICT Department is responsible for the overall development of eGovernment, public administration information management, corporate data and information management governance in the central government. This strategic unit also designs joint functional solutions and methods and is in charge of the overall development of information security in public administration, as well as data security governance in the central government. The Public Sector ICT Department is divided into three units: Digitalisation, Information Management and Policy, and Information Security and Cyber Security. In addition, the department takes active part in the work of international organisations, exerts its influence on their programmes and makes use of them in the development of administration in Finland.

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Source: https://vm.fi/en/public-sector-ICT

Ministry of Transport and Communications

The Ministry of Transport and Communications is responsible for the provision of safe and secure transport and communications connections and services. It also enables the use of new digital services. The aim is to create a favourable operating environment for services and new business models. The responsibilities of the Ministry of Transport and Communications include strategic development, steering and legislation related to infrastructure, i.e. communications networks as well as digital services, use of data and automation. It is also responsible for security and safety. The Ministry of Transport and Communications has four departments: the Ministerial Governance Department, the Services Department, the Data Department and the Networks Department. The Networks Department is divided in the Networks Regulation Unit, the Development Unit and the Climate and Environment Unit.

The Networks Regulation Unit is tasked with drafting laws and other strategic guidelines related to frequencies, network licenses and broadband connections. The Development Unit ensures that networks and network markets provide a sustainable growth platform for services. The Data Department is responsible for regulation related to the use of data, including security as well as automation in the transport sector. The Service

department is responsible, among other things, for the regulation of digital services. The Climate and Environment Unit is responsible for climate and environmental issues relating to the ICT sector.

5.1.2 Coordination

Information Management in Public Administration Act

In the beginning of 2020 the Information Management in Public Administration Act (906/2019) entered into force. The implementation of this act will change some of the existing coordinating structures. According to the act the Ministry of Finance is responsible for general governance of information management in public administration. The existing coordinating bodies are listed below. The Ministry of Finance is due to take further decisions concerning the other coordinating advisory bodies in autumn 2020 by the latest.

Advisory Committee on Government Security Network

The Ministry of Finance is supported in steering and supervision by the Advisory Board for Security Network activities established by the government for a fixed term. The Advisory Board is led by the Ministry of Finance with representation from at least the Ministry of Finance, the Prime Minister's Office, the Ministry for Foreign Affairs, the Ministry of the Interior, the Ministry of Defence, the Ministry of Transport and Communications, the Ministry of Social Affairs and Health, the Finnish Defence Forces, the National Emergency Supply Agency and the Association of Finnish Local and Regional Authorities. The Advisory Board's task is to participate in the drafting of decrees, orders and decisions issued based on the provisions contained in the Government Security Network Activities Act and other matters related to the steering and supervision of security network activities.

Public Sector Digital Security Management Board (VAHTI)

VAHTI was reappointed with some modifications for the 2017-2019 term in December 2016 by the Ministry of Finance. The new VAHTI structure identified five main areas of work: management and risk management, business continuity management, security in development, security maintenance, and monitoring and evaluation. VAHTI provides a forum for cooperation and coordination among government organisations in charge of the development and steering of information security and data protection. Different administrative branches and levels of administrations are represented in VAHTI. VAHTI issues information security instructions, policy guidelines, that are important reference materials for public authorities. VAHTI instructions are also utilised and referenced outside the government organisations in e.g. municipalities and the private sector.

Strategic Management Group for Digital Security in Public Administration

In December 2019, the Ministry of Finance appointed a Strategic Management Group for Digital Security in Public Administration. The group comprises various different governmental organisations, including the Prime Minister's Office, the Ministry for Foreign Affairs, the Ministry of the Interior, the Ministry of Defence, the Ministry of Transport and Communications, the Ministry of Social Affairs and Health, the Ministry of Employment and the Economy, the Security Committee, the Association of Finnish Municipalities, a representative of the municipalities, the National Emergency Supply Agency, a representative of the universities and, as an expert, the Digital and Population Data Services Agency. The Group coordinates the strategic risk assessment concerning digital security in public administration. It creates and coordinates a cooperation model for digital security and assesses the strategic digital security situation in public administration, as well as the key digital security services to be developed. In addition, the Group outlines policies on key digital security aspects and digital security objectives,

as well as oversees the delivery of an Implementation Plan for Digital Security, and a digital security road map for Finnish municipalities.

5.1.3 Implementation

Government ministries and agencies

Government ministries and agencies are responsible for the implementation of their own departmental eGovernment projects.

Digital and Population Data Services Agency

The Digital and Population Data Services Agency (The Finnish Digital Agency) was established by the Digital and Population Data Services Agency Act (304/2019) on 1 January 2020. The Agency was created by merging the Population Register Centre, the Local Register Offices and the Steering and Development Unit for the Local Register Offices operating under the Regional State Administrative Agency for Eastern Finland. The Agency belongs to the Ministry of Finance's branch of government and is responsible for the development of eGovernment services as well as promoting the overall digitalisation of society, securing the availability of data, and providing services for the life events of its customers.

Government ICT Centre Valtori

Government ICT Centre Valtori is a service centre operating under the administrative purview of the Ministry of Finance. It provides sector-independent ICT services for central government administration.

5.1.4 Support

Digital and Population Data Services Agency

The Digital and Population Data Services Agency formulates joint functional and technical solutions and methods.

5.1.5 Interoperability coordination

Ministry of Finance

The governmental body in charge of interoperability activities for Finland is the Ministry of Finance.

5.1.6 Base registry coordination

Ministry of Finance

According the Information Management in Public Administration Act (906/2019), the Ministry of Finance is responsible for the general governance of information management, including the overall governance of base registries.
There is only one public administration information system defined as a general nationwide computerised base register. The Population Information System and the Digital and Population Data Services Agency's Certificate Services Act (661/2009) defined the Population Information System as a general nationwide computerised basic register.

Digital and Population Data Services Agency

The Digital and Population Data Services Agency promotes the digitalisation of society, secures the availability of information and provides services related to customers' life

events. The Agency's information system is utilised throughout the information services and management of the Finnish society, including public administration, elections, taxation, judicial administration, research and statistics. Businesses and other private organisations can also gain access to Agency information.

5.1.7 Audit

National Audit Office (NAO)

The NAO is Finland's supreme audit institution and reports directly to the Parliament. It audits the State's finances and asset management in order to ensure that public funds comply with related legislation.

5.1.8 Data Protection

Office of the Data Protection Ombudsman

The Office of the Data Protection Ombudsman safeguards the rights and freedoms of individuals with regard to the processing of personal data. The Data Protection Ombudsman is a national supervisory authority which supervises the compliance with data protection legislation. Approximately 40 data protection specialists and two Deputy Data Protection Ombudsmen work in the Office of the Data Protection Ombudsman .

5.2 Subnational (federal, regional and local)

5.2.1 Policy

Regional Councils

Regional Councils are joint municipal authorities responsible for regional development. Each Regional Council is tasked with creating a development strategy for the relevant region. This scheme constitutes a region's fundamental strategy document.

5.2.2 Coordination

At the beginning of 2020, the Information Management in Public Administration Act (906/2019) entered into force. The implementation of this act will change some of the existing coordinating structures. Further decisions of the coordination structure will be made during the year 2020.

Advisory Committee on Information Management in Public Administration (JUHTA)

The Committee coordinated the development of information technology, information management and electronic services at central and local government level. The mandate of the committee was extended to the end of 2019.

5.2.3 Implementation

Regional Councils

Regional Councils, which are joint municipal authorities responsible for regional development, implement a general regional policy. There are 19 Regional Councils grouping together the country's 310 municipalities.

5.2.4 Support

Association of Finnish Local and Regional Authorities (AFLRA)

AFLRA's objective is to lay the ground for local authorities to operate and cooperate, while encouraging their vitality for the benefit of residents. The services provided span all areas of municipal operations, including local and regional government development, the information society and social and healthcare services.

5.2.5 Interoperability coordination

No responsible organisations have been reported to date.

5.2.6 Base registry coordination

No responsible organisations have been reported to date.

5.2.7 Audit

National Audit Office

The National Audit Office is tasked with auditing central government regional offices and the usage of central government subsidies at regional and local government levels (municipalities).

5.2.8 Data Protection

Office of the Data Protection Ombudsman

The mandate of the Office of the Data Protection Ombudsman covers also regional and local governments.

6 | Digital Public Administration Infrastructure

6 Digital Public Administration Infrastructure

6.1 Portals

6.1.1 National Portals

Suomi.fi Web Service for Citizens, Organisations and Companies

Suomi.fi Web Service is a national service for citizens and entrepreneurs. It brings together information and services relating to public services for citizens and businesses under a single roof. It gives, for example, access to eServices, eMessages and eAuthorisations, and provides information about service points and users register data. The web service offers the following content:

- Suomi.fi Web service contains information and services for different life events and situations in a company;
- Suomi.fi Finnish Service Catalogue is a national, centralised data resource where citizens and companies can find information about public services and service channels. It is mandatory for public organisations to update the information about their services in Service Catalogue, while private and 3rd sector organisations may do so at their own will;
- Suomi.fi eAuthorisations is a centralised authorization register. Citizens and companies can authorise another person or company to take care of things on their behalf e.g. file their income tax return;
- Suomi.fi Messages is a secure channel for electronic communications, decisions and messages between authorities and citizens or companies;
- Suomi.fi Myregisterdata contains compiled information from the registers of different authorities. After identification, citizens and companies can view their own data in e.g. population, real estate and vehicle registers;
- Suomi.fi Maps provides information for public sector service locations and enables routing to the service point. The service is easily integrated into different eServices;
- Suomi.fi Payments enables easy and secure payments in public services.

Demokratia.fi

Demokratia.fi is a portal that gathers together information from various democracy-related sites and news in the field of political decision-making. The site thereby makes it easier for citizens to find the best channels for participation and influence, while it increases government transparency and interaction. The portal summarises eDemocracy web services maintained by the Ministry of Justice, namely lausuntopalvelu.fi, otakantaa.fi, nuortenideat.fi, kuntalaisaloite.fi and kansalaisaloite.fi. Demokratia.fi also contains links to other public authorities' websites with information on current matters that are being planned or prepared. In addition, it highlights the latest news from, for example, the parliament and the government. The site includes links to public authorities providing services to citizens.

Paikkatietoikkuna.fi

Paikkatietoikkuna is a national portal containing the spatial data produced and used in Finnish society. It is based on open source software and it offers the opportunity, through a map window, to browse dozens of map levels, produced by different organisations and regarding different themes, such as terrain, soil and land use, as well as traffic network. The portal is used by citizens, business and the public administration, when needed.

Opendata.fi

Opendata.fi is a service for sharing open data and developing interoperability of public administration organisations. Opendata.fi is available for all users who want to make use of open public information resources. Companies and citizens are allowed to store open data into the service. The service contains metadata of open datasets and interoperability tools, descriptions and guidelines.

Semantic Interoperability Platform

The Interoperability Platform functions as a support service for the interoperability of shared information pools and information systems and for data exchange. It also supports the implementation of the Information Management in Public Administration Act (906/2019).
The platform is especially designed to create and maintain data contents, that is, terminologies, code lists, core vocabularies and application profiles for constructing shared semantics and data models for information systems, digital services and data flows. The platform is based on a method (the Interoperability Method) that guides the use of these semantic resources. Other objectives of the common platform include supporting collaboration and transparency in data management. There exists a decentralised governance model for the content.—The interoperability platform is primarily intended for public administration but there are no obstacles for the private sector to use it as well.

Job Market Finland

Job Market Finland (Työmarkkinatori) is an online service for the labour market. It is the Finnish national platform to bring together public and private job opportunities with job seekers. The platform helps to fill job vacancies and work opportunities based on the required skills. It also provides services and information about situations of work life.

6.1.2 Subnational Portals

Lounaistieto.fi

The Southwest Finland Regional Information Service provides access to open public information as texts, pictures and statistical data, offering this service to citizens and business.

Avoinsatakunta.fi

The portal Open Satakunta produces projects with a cross-cutting focus on open data and open education, reaching out to citizens and business.

6.2 Networks

Kampus: Government Intranet

Kampus is a common platform for information sharing among ministries. It also provides access to all internal services related to, among other things, human resource management, internal data sets and archives, government projects and also government travel services. As the government's intranet information directory, it provides access to internal and external government and parliament information.

Trans European Services for Telematics between Administrations

Finland uses the Trans European Services for Telematics between Administrations (TESTA) network as one of the main cross border infrastructure to communicate digitally among the EU agencies, institutions and Member States.

6.3 Data Exchange

Electronic Prescription

The possibility of using the Finnish electronic prescription to buy medications in other European countries is being introduced step by step. In January 2019, Estonia was the first country where it was possible. The Finnish personal identity code is mandatory for dispensing the prescription and for purchasing medication. In addition, the citizen must be given a permission to share prescription data with pharmacies in another European country. The consent can be issued for a single country or for all those countries that provide the service. The consent can also be withdrawn at any time.

Pilot projects

The data exchange pilot between the business registries of Finland and Estonia started in February 2020, focusing on the level of integration of the digital services in the two countries.
In addition, there have been MyData pilot projects in the areas of transport and education. At the local and regional government level, there have also been experiments on the usage of personal information in the social and healthcare sectors.

X-Road

Finland and Estonia have set up a joint institute to develop the X-Road technology (used in the Finnish Data Exchange Layer called *Palveluväylä*).

6.4 eID and Trust Services

The eID ecosystem in Finland

These are the main stakeholders related to the eID ecosystem in Finland:
- Ministry of Transport and Communication: legislation on eIDs and trust services;
- Transport and communications agency Traficom: supervision of eID-providers;
- Ministry of Finance: steering of Digital and Population Data Services Agency, eID policy guidelines for the public sector;
- Digital and Population Data Services Agency: management of the national eIDAS node, the public sector eID portal (Suomi.fi e-Identification) and the national ID card;
- Private sector identity providers: there are currently 15 private sector identity providers (banks and mobile operators).

In 2019, the authentication for public sector eGovernment services consisted of bank-issued eIDs (90%). The use of the national ID card for online authentication is limited to only 1%. The remaining 9% were eIDs issued by mobile operators.

Digital and Population Data Services Agency

The Finnish Digital Agency (Digital and Population Data Services Agency) is responsible for issuing electronic identities and certificates. It creates an electronic identity (eID) for Finnish citizens when providing them with a personal identity code. The electronic client identifier is used for electronic user identification in secure online transactions. It is a dataset consisting of a series of numbers and a check character that helps identify Finnish citizens and foreign citizens permanently residing in Finland who are registered

in the Population Information System. The Finnish Digital Agency is currently the only certificate authority for qualified certificates in Finland able to issue Pan-European certificates that provide high levels of information security and contain the correct identity.

The Finnish Digital Agency is the responsible eIDAS node operator in Finland. Finnish national eIDs exist on two levels of assurance; eIDAS high and eIDAS substantial. However, only the eID cards issued by the Finnish Digital Agency have been evaluated as being eIDAS High-compliant. The Finnish Digital Agency acts as a central actor for bankID and mobile certificates contracts for the public sector.

FINeID

FINeID is the Population Register Centre's certificate system, which is based on Public Key Infrastructure and provides the PRC's certificate products and services. The system enables privacy protection and information security, which are two basic citizens' rights and an absolute requirement for online service providers. FINeID offers an array of Certification Authority Services, including the citizen certificate, organisation certificate and server certificate described below.

Citizen Certificate

A Citizen Certificate is an eID used for safe online services, containing a citizen's first name, surname and an electronic client identifier, among other information. It identifies and encrypts emails and documents. In addition, it provides eSignatures and can be attached to the ID card. Electronic transactions made using the certificate are secure. Electronically signed documents are equal in all legal respects to traditional signatures. Every personal certificate is issued by the Finnish Digital Agency.

Organisation Certificate

Organisation Certificates are used to verify a given person's identity as a representative of a business, organisation or associated group. These certificates also make it possible to provide an undisputed electronic signature as defined by law and to provide authentication of network users and their access rights. They can also include an organisation's valid email address.

Server Certificate

The Finnish Digital Agency issues server certificates that can be used for identifying public sector services. Utilising a server certificate enables the user of a service to verify the authenticity of the service provider.

Civil Servant Identity Card

Chip ID cards for public sector employees were adopted across the central government in October 2006. Photo ID cards contain a qualified certificate enabling identification in order to log into information networks, the authentication of network users and their usage rights, the encryption of emails and other documents, and the provision of a binding and undisputable electronic signature, as specified by Finnish legislation. These certificates can also be used for access control systems, teleworking, passage control and physical identification.

Public Sector eID Portal

The service (Suomi.fi eIdentification) offers all eID means via one technical interface for public sector eGovernment services. Suomi.fi e-Identification is connected to the eIDAS node and includes also eIDs of other member states. The service is run by the Digital and Population Data Services Agency. The agency also manages contracts with eID providers (banks and mobile operators).

eAuthorisations

eAuthorisations is a service for reliable verification of a person's or organisation's authorisation and right to use digital services on behalf of another person or organisation, regardless of time or place. The service provides mandates for all possible business cases and scenarios and their use cases, depending on which services the mandate is being used for. Possible uses of authorisation are for example when a parent acts on behalf of a minor child, or when a person with signature powers acts on behalf of a company. The Suomi.fi eAuthorisations service is run centrally by the Finnish Digital Agency and the service is available free of charge for public and private sector organisations.

Business Information System (BIS)

The Business Information System (BIS) is a service jointly provided by the National Board of Patents and Registration and the Tax Administration which allows users to submit information simultaneously to both organisations. Businesses and other organisations can lodge their details using a single notification form to both authorities, thus avoiding duplicates. It includes businesses and other organisations registered with the Trade Register, the Register for Foundations, the VAT Register, the Pre-payment Register, the Employers Register or the Tax Administration Client Register, as well as all businesses and organisations which have filed a start-up notification but have not yet been entered in the above-mentioned registers.

All businesses and organisations included in the BIS are assigned a Business Identity Code (Business ID) which has replaced all previous identifiers. The Business ID is provided as soon as the start-up notification has been submitted. The BIS also provides a real time, free-of-charge information service which enables users to access information on Finnish-registered businesses, organisations and foundations, including contact details and Business IDs. In addition to finding information on individual businesses, the BIS service is useful for those in the process of selecting a name for a new business or changing the name of an existing business. Information is available on both current and dissolved businesses.

6.5 eProcurement

Current status

eProcurement is decentralised and the process sub phases are not provided on a single national platform. Privately-owned specialised platforms exist for the eInvoicing post-award phase. The visibility on the authorities websites is well above the EU27+ average, as demonstrated by the 9th Benchmark Measurement (Digitising Public Services in Europe: Putting ambition into action) by the European Commission in December 2010.

Tutki Hankintoja

In 2017, a new service focused on government spending on procurement was opened, *Tutki Hankintoja.* The service offers citizens and companies information about government spending on procurement. Citizens are able to search information about state purchases and how public funds are spent.

Central Procurement Unit

Hansel Ltd. is a state-owned public procurement enterprise that acts as a central purchasing body for government entities, providing a full set of eProcurement tools and services to the public sector. The procurement online service it offers and manages consists of a notification database service for ongoing public tenders. This database service is mandatory for ongoing public tenders. A private eInvoicing platform offers value-added services for the notification database. The value-added services include the

registration of users for the permanent follow-up of incoming notifications and orders for tender.

HILMA notification service

The HILMA notification service is a platform for the eNotification of national calls for tenders. Since the entry into force of the new Public Procurement Act in 2007, the use of HILMA has become compulsory for contracting authorities in cases where national thresholds are exceeded

eInvoicing platforms

For several years, economic operators have been able to submit eInvoices to contracting authorities through their own accounting software or via the two following platforms:
  - The Basware Supplier Portal, a free-of-charge service for sending eInvoices to the Finnish contracting authorities; it was developed by service provider Basware;
  - The Post Network Service, developed by service provider Posti Group and designed especially for small businesses.

6.6 ePayment

Suomi.fi Maksut

All payments made by the Finnish government are electronic. The payment system has recently been changed to Suomi.fi *maksut* (payments). The responsible organisation is State Treasury. Company group Paytrail/Nets has agreement with the government. Charge cards from bank Nordea are widely used for travelling and small purchases. Cash in not used.

6.7 Knowledge Management

Government intranet portal

Kampus, the Finnish public authorities intranet, is a joint interactive tool for knowledge management, as well as a database that supports work processes, innovation, interaction, learning and cooperation. It is based on smooth technology and standardised solutions. In addition, it constitutes a coordinated whole with government and parliament web services (i.e. intranet, extranet, internet) and with joint internal systems.

6.8 Cross-border platforms

The Nordic Institute for Interoperability Solutions

Finland and Estonia formed in June 2017 a jointly managed special purpose organisation to manage the development of X-Road – the Nordic Institute for Interoperability Solutions (NIIS). The main data exchange solution for Finnish public sector organisations, *Suomi.fi-palveluväylä*, is based on X-Road technology.
Finland and Estonia's X-Road data exchange layers were connected to one another in February 2018, making it possible to easily transfer data over the Gulf of Finland between organisations that have joined the countries' national data exchange layers. In June 2018 the NIIS took over the X-Road core development and the management of the source code of the X-Road core from Finland's Population Register Centre and the Republic of Estonia's Information System Authority.
Iceland and the Faroe Islands have become partners of the NIIS. The next version, X-Road 7, is being developed and is scheduled for release in 2020–2021.

6.9 Base Registries

Population Information System

The Finnish Population Information System is a computerised national register containing basic information about Finnish citizens and foreign citizens residing permanently in Finland. Moreover, it stores information about buildings, construction projects, residences and real estate. The Population Information System is the most-used basic register in Finland.
The Population Information System is maintained by the Digital and Population Data Services Agency. Registration of information is based on statutory notifications made by private individuals and public authorities. The information in the system is used across Finnish society's information services and management, also for the purposes of public administration, elections, taxation, judicial administration, research and statistics. Businesses and other private organisations can also gain access to the information.

Register of Associations

The Register of Associations is maintained by the Finnish Patent and Registration Office. Freedom of association is one of the basic political rights guaranteed in the Finnish Constitution. Within the register, there are free search options for basic information as well as eService options such as basic notices, notices of statutory amendments, notices of dissolution, and changes of signatories of an association. Address changes can also be submitted online.

Trade Register

The Trade Register contains information on traders and businesses:
- the majority of businesses are limited liability companies and private traders;
- official details of businesses all over Finland;
- all businesses have to be registered with the trade register;
- most businesses must also submit their financial statements (annual accounts) to the register;
- joint notification procedure and an information service with the Finnish tax administration (BIS).

The Trade Register is maintained by the Finnish Patent and Registration Office.

The Register for Foundations

The Register for Foundations, maintained by the Finnish Patent and Registration Office, holds information about foundations, their by-laws and financial statements. Citizens can order copies of documents enclosed with applications or notifications to the Register of Foundations. Some documents, such as balance sheet specifications enclosed with financial statements, are not publicly available.

Land Information System

The Land Information System is maintained by the National Land Survey of Finland. It contains attribute data related to property and information about mortgages and registrations of property titles as well as other property information.

Business Information System (BIS or YTJ in Finnish)

The BIS is jointly maintained by the Finnish Patent and Registration Office (PRH) and the Finnish Tax Administration. Information reported through the BIS is forwarded when needed to the:
- Trade Register;
- Register of Foundations;

- VAT Register;
- Prepayment Register;
- Employer Register.

The most common user cases are:
- start or close down a business or an organisation;
- report changes;
- search for basic details of companies and organisations;
- some of the notifications are available as eServices, some must be filed using paper forms.

The Topographic Data System

The Topographic Data System is maintained by the National Land Survey of Finland. It describes the entire Finnish territory, and is used for other map products and in various optimisation tasks. Aerial photographs, scanning data and data provided by other providers are utilised in updating the topographic database. The updating is done in close cooperation with the municipalities. Field checks on the ground are also needed to some extent, mostly as regards the classification of features.

Digiroad

Digiroad is a national database that contains the geometry of the Finnish road and street network, including the most important road attribute data. It provides a comprehensive and up-to-date online description of the Finnish road and street network. The data enables and supports the development and commercialisation of services and applications for, among others, route planning, navigation, tourism, and intelligent transportation systems (ITS) purposes. Digiroad data have been open for everyone to use since 2004.

The service is maintained by the Finnish Transport Infrastructure Agency (FTIA) *Väylä.* Municipalities and the Regional centres for economic development, transport and environment (ELY) are in charge of data administration in co-operation with the Finnish Transport Infrastructure Agency.

The Incomes Register

The Incomes Register is a national online database that contains comprehensive information on individual wages, pensions and benefits. The Incomes Register replaces the annual payroll information returns previously submitted to the Finnish Tax Administration, earnings-related pension providers, the Employment Fund and occupational accident insurers. The information is submitted to the Incomes Register to meet the needs of different authorities.

The Incomes Register contains information on wages and earnings. Information on pensions and benefits will be added as of 2021. The obligation to report information to the Incomes Register apply to all wage payers as of 1 January 2019 and to all payers of benefits as of 1 January 2021.

Data can be submitted via an interface, by uploading files in the Incomes Register's e-service or by entering the information in an online form. Information can only be submitted on paper in special circumstances.

The Finnish Tax Administration's Incomes Register Unit will maintain the register and serve as the authority in charge.

Register of Property Management Company Shares

The electronic recording of ownership and mortgaging entries is a new governmental dataset and major new register. It started in the beginning of 2019, once the legislation entered into force. After that, all new property management companies were established digitally, and no share certificates could be printed on paper any more. The shares of new property management companies are automatically included in the Register of Property Management Company Shares.

7 | Cross-border Digital Public Administration Services

7 Cross-border Digital Public Administration Services for Citizens and Business

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.

7.1 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).

7.2 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 Mr. Waltteri Heino, Public Sector ICT Department, Ministry of Finance.

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

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ISA² is a EUR 131 million programme of the European Commission which develops digital solutions that enable interoperable cross-border and cross-sector public services, for the benefit of public administrations, businesses and citizens across the EU.

ISA² supports a wide range of activities and solutions, among which is the National Interoperability Framework Observatory (NIFO) action.

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