

## Information and information policy at the core of digitalisation

### 1. TRANSFORMATION AND POSSIBILITIES

Finland has succeeded in creating a stable and secure society based on trust. We benefit from a high-quality education system, a high average educational level, well-functioning public administration, extensive and good-quality public services, a comprehensive social-security safety net and the capacity to bear risks. This success has been brought about by a firm belief in the power of information and the right of everyone to access information. Examples include universal literacy, compulsory education and public libraries. Even more than now, in the future information will be the greatest and most productive resource for creating and maintaining wellbeing – more so than machines, devices or work performed by people.

In the past few years, artificial intelligence (AI) has rapidly become part of our modern society that seeks to benefit from digital technologies. The world is currently transitioning towards an *age of artificial intelligence*, when data processing will be intelligent and self-learning. Public administration has also benefited from the computation, analysis and repetition capabilities of AI. The use of information and rapidly evolving technologies will offer organisations better opportunities to update their operations, deliver savings and improve the availability, quality and customer experience of their services.

To support the efficient production of digital activities and services, we must ensure not only the availability of information but also its quality, as well as reliable and secure information systems. Our society must be able to solve significant challenges and ethical questions related to collecting, sharing

and combining data. *This requires an information policy, i.e. a set of measures for promoting and guiding good management and effective use of information on a long-term basis.*<sup>1</sup>

### Digitalisation goes hand in hand with the development of public administration

The development of public administration always involves making use of the benefits of digitalisation. This also requires policies and expertise concerning the technologies applicable in different subsectors. Effective information management in conjunction with performing public administration tasks and providing public services will enhance the efficiency of public authorities on the basis of good governance principles, and will strengthen citizens' trust. By building a consistent information policy, in which consideration is given to the roles, responsibilities and rights of different

#### CONCEPTS

**Digitalisation** refers to the utilisation of information technology to reform and develop activities.

**Artificial intelligence (AI)** is a collection of different technologies and applications from data analysis to machine learning and robotics. In fact, artificial intelligence refers to software or a computer programme that contains a learning mechanism. In a new situation, AI bases its decisions on what it has previously learned.

**Information policy** comprises a set of measures for promoting and guiding good management and effective use of information on a long-term basis.

parties, Finland can act as a pioneer in information use and enhance its own competitiveness in Europe and in the global economy.

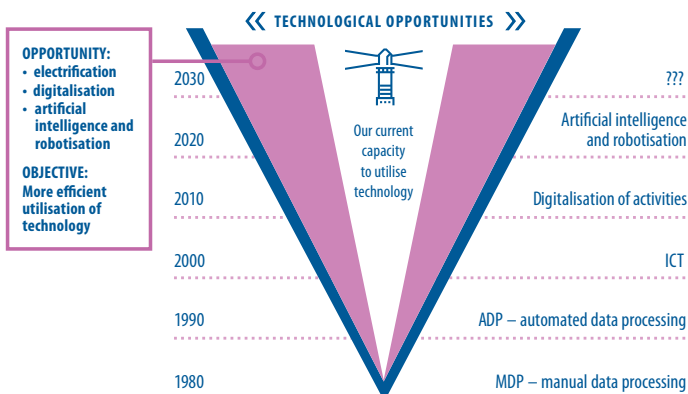
International comparison reveals that even today, in many different indicators, Finland features among the top countries in the extent of digitalisation in public administration. Finland's competitiveness is boosted by factors such as high-quality information resources, which is why Finland is considered to have the potential to become one of the leaders in the use of AI<sup>2</sup>. It is possible to make even more efficient use of information resources in managing and guiding public administration and in developing services in the public and private sectors. This requires an agreed set of ethical and legal principles and practices regarding the administration and release of information. Information produced by public administration can serve as a basis for significant business activity. By strengthening our existing top expertise and by investing in areas important to Finland, we can enhance our position in the global AI competition.

Public administration and its services should be continuously reformed to respond to the requirements of a changing society. *The objective of information policy is to provide information-based public services and activities more efficiently and with better results.* The Government report on information policy and artificial intelligence (VNS 7/2018)<sup>3</sup> provides a policy base and factual outline for the future. It allows a road map of prioritised measures to be put together to ensure the use of information is ethical, secure and efficient. In addition, it is important to create tools and regulations in order to enable individuals to utilise their personal data.

### Strong and long-term focus on development

Finland has built a strong foundation for the digitalisation of Finnish society and has engaged in long-term planning extending across government terms. The digitalisation and changes in practices within central government and the public sector as a whole began in the 1990s as more developed technologies became commonplace.

Figure: In the 2020s, we will be relying on automated systems and self-service to an increasing extent. We will make use of AI and robots not only in industry but also in our everyday lives.<sup>4</sup>



Important centrally funded and coordinated projects to develop electronic services within the entire public administration include:

- **eServices and eDemocracy Acceleration Programme (SADe)<sup>5</sup>** (2009-2015) aimed at reforming service processes in public administration by using information and communications technology. The purpose was to produce customer-oriented and compatible online service packages for citizens, companies and public authorities. In addition to this, the programme increased the skill level and created cross-administrative cooperation networks.
- **The National Architecture for Digital Services (KaPa)<sup>6</sup>** (2014-2017) focused on creating an infrastructure of interoperable digital services in order to facilitate data transfer between organisations and services. Suomi.fi services were launched during the programme<sup>7</sup>.
- Under the Government's key project on **digitalising public services** (2015-2019)<sup>8</sup>, 17 projects were launched to create services or a basis for new services in the future. Examples include a digital register of residential property ownership and a virtual hospital.

As digitalisation has gathered pace, society has increasingly relied on information, data and the knowledge and services derived from it. Digitalisation offers new possibilities to make people's everyday lives easier and simpler. The goal is that by 2025 Finland will have made a productivity leap in the public and private sectors by grasping the opportunities offered by digitalisation and dismantling overlapping and unnecessary regulation that slows development work. The agile reforms in Finland have been supported by a management culture based on interaction, experiments and trust.<sup>9</sup>

## 2. DIGITALISATION IS A COMMON CAUSE

Changes in service structures that are based on digitalisation and new technologies aim to make services more convenient for citizens and can save time and money. However, the public sector's role in digitalisation should not be limited to just digitalising the internal processes within organisations.

In the age of AI it will be important that public administration takes the initiative and enables new practices. A fertile business environment can be created, for example by reforming legislation to support the exchange of data between different entities and information resources<sup>10</sup>. The public sector has a considerable role in facilitating digital practices. In fact, true digitalisation of a society can be defined as the creation of new customer-driven services and service models that cross organisational boundaries and practices and that are created by the public and private sectors together. Both sectors must advance at about the same speed.

Implementing more efficient, human-centred practices and processes requires not only more skills and abilities<sup>11</sup> but also public investment. Promoting digitalisation necessitates strong management and comprehensive oversight of the investments made. Investment expenditure should be allocated across the entire public administration. A model for managing digitalisation investments is currently under preparation and can be used to help increase the effectiveness of investments and support significant development projects connected to the Government Programme's priority areas.

It is important for citizens that digitalisation enables their service needs to be taken into account more comprehensively and throughout their lives. This can be accomplished by organisations working together. People's lives are composed of many different stages and events, each requiring a particular set of services<sup>12</sup>.

#### DIVISION OF RESPONSIBILITIES BETWEEN CENTRAL AND LOCAL GOVERNMENT

- **The Ministry of Finance** oversees public sector information management, structural development, and joint services and service provision. It also manages the general criteria for information security, prepares information policy and administrative policies and develops digital administration. **The Public Sector ICT Department**<sup>13</sup> establishes the framework for the digitalisation of the public sector and leads the way in digitalisation. It does this by fostering the digitalisation of public sector services, promoting interoperability across government and enabling public authorities to operate securely. **The Department for Local Government and Regional Administration** promotes the development of municipal administration and activities through digitalisation (e.g. Digital municipalities experiment<sup>14</sup>).
- **Ministries** guide and direct the development of information management and projects in their sphere of operations.
- The **Population Register Centre** (from 1 January 2020: Digital and Population Data Services Agency) promotes digitalisation and the use of electronic services in Finland<sup>15</sup>. The Centre's work includes:
  - » development and production of suomi.fi services for citizens, public authorities and companies. The national service architecture creates the basic framework for implementing electronic services

in the public sector and for the digitalisation of Finnish society.

- » responsibility for Finland's most important information resource – the Population Information System – and the production of digital services that require electronic identification.

- **Government ICT Centre Valtori**<sup>16</sup> provides sector-independent ICT services for central government administration and ICT and integration services which meet the requirements for high-level preparedness and security. In its service production Valtori integrates its own services with those acquired from its partners.

- **Municipalities** – Municipal responsibilities include the organisation of services for their residents and democratic models which will translate the benefits of digitalisation into residents' wellbeing.

### 3. PUBLIC ADMINISTRATION IN THE AGE OF AI

The exponential speed of technological development in the next few years will bring not only remarkable new opportunities but also unforeseen developments. Societies will face new challenges as a result.

Recognising the opportunities of AI and utilising these to good effect will be a significant contribution for the future. The development of public administration will require bold solutions and sufficient investments in the future. They will enable us to develop public administration in a human-centric manner and ensure everyone has access to the world's best public services.

Attention must be given first and foremost to ensuring that change is centred on people and their wellbeing and real service needs, and not on the technology itself. In addition, information sharing while also respecting people's rights over their data is an essential element in service provision in the digital age. When the necessary data is gathered together in an ethically sustainable way, services will become more logical and consistent, and customers will not need to provide the same information multiple times for different service providers.

#### AI – the new electricity

Many countries have identified AI as a key factor in their competitiveness strategies or have drafted a national AI strategy. Finland has also launched a national AI programme<sup>17</sup>, which aims to make AI one of the key success

factors for Finnish businesses and to turn Finland into a leading country in applications of AI. The programme considers AI to be the new electricity – a cross-sectional transformation which will be an ever more significant part of our everyday lives in the future.

It is clear that the full utilisation of digitalisation and new technologies is driven by the desire to considerably improve the efficiency of public administration. This will also benefit citizens. Using information, services could be targeted effectively, which would make the service chains smoother, tailored and more efficient for customers. In the future, it will be the services themselves that contact the people who need them, instead of people searching for the services they need. Running from one office to another will no longer be necessary, and people's everyday lives will become easier in all situations<sup>18</sup>. It may soon be possible for us to access health services on our mobile phones, which would free healthcare personnel to focus on their actual work, interaction with and treatment of patients.

### Digital security creates trust

The central ingredient of AI is data that different systems utilise in order to learn to operate independently in various situations. Information security and data protection must be guaranteed in the future too, and this cannot be achieved by categorically blocking or compartmentalising the flow of data. How do we ensure the safety of existing services and enable the implementation of new technologies?

Maintaining trust will be one of the central challenges of the 2020s. In order to maintain trust, we must pay attention to risk management, guarantee the continuity of activities and ensure the ability to observe and react. Information security should be considered part of a wider perspective on digital safety that highlights the importance of situational management.

We must make sure that technological development is seen as a positive phenomenon full of opportunities. It is therefore essential that people are given the possibility and the knowledge to keep up with technological developments. In addition to traditional thinking and measures, technological development will also require a new and innovative approach to maintaining and strengthening security. This is because rapid technological, social and cultural change poses a challenge to the traditional level of trust in Finland that is based on shared values and predictability.<sup>19</sup>

The power of AI in combining and predicting information will create a completely new set of ethical questions. The greatest challenges related to the use of information and artificial intelligence are not necessarily technical but ethical. Any ethical questions related to technologies like AI must therefore be considered in advance. In this way,

ethical questions can be taken into account in all future solutions – including those that now feel very remote.

Ethical standards must be taken into account comprehensively in processing of personal data for developing new services and operational models and international cooperation. In addition, risks and threats related to the digital operating environment must be acknowledged so that we can maintain trust and ensure people's privacy and data protection.

*AI can help us solve major social challenges, create wellbeing and promote economic growth. Serious problems of great complexity cannot be resolved without more systematic efforts to harness the opportunities offered by technological advances and digitalisation in order to promote people's wellbeing.*

*Whether the potential of AI will be fulfilled depends on us and the choices we make. We must make active decisions on how to develop AI technologies and how to apply them. In addition, we must start putting things into practice boldly and quickly.*

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- 4 [Glimpses of the future](#). Data policy, artificial intelligence and robotisation as enablers of wellbeing and economic success in Finland (2019), p. 15. Also available, in Finnish only: [online recording of the publication event \(on 19 March 2019\)](#) and an earlier publication [Glimpses of the future – possibilities of digitalisation and robotisation \(2017\)](#)
- 5 [SADE-ohjelma digitalisaation vauhdittajana](#) In Finnish only
- 6 [National Architecture for Digital Services](#) (vm.fi) In Finnish only
- 7 [Suomi.fi – information and services for your life events](#)
- 8 [Public services will be digitalised](#)
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- 10 The objective of the Government proposal for an Act on Public Administration Information Management ([HE 284/2018](#)) is to provide information-based public services and activities more efficiently and with better results. With regard to information policy, the law's objective is to improve the release and use of information between authorities, other entities and services in a secure way.
- 11 [Competence required by digitalisation](#) (2016, Innokylä) as well as e-learning material produced for civil servants on eOppiva.fi-service, in Finnish only (e.g. [Tietosuojan ABC](#), [Digiturvallinen työelämä](#) and [Tiedosta tekoihin](#))
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