

Securing Data in Public Sector ICT Infrastructure

Valtori Government
ICT Centre

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Public sector employers: Government ICT Centre
Valtori, City of Vantaa, Finnish Customs

Private sector employers: logistic companies, large
corporation (mainly health sector)

Master of Business Administration, Specialist
Vocational Qualification in Leadership and
Business Management

Key interests: architecture development, product
management, data analysis, social phenomena

Valtori provides sector-independent ICT services for the central government as well as information and communications technology services that meet the requirements of high preparedness and security

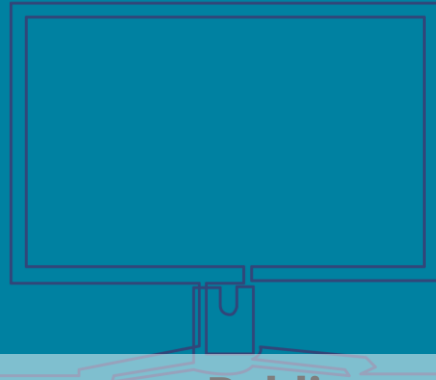
- One of the ICT service providers for ~100 governmental agencies
- One of the service centres steered by the Ministry of Finance (The Public Sector ICT Department)
- Operations started 1.3.2014, 'Haltik' government safety network affiliated in 2016 => two business areas
- 1300 persons in 30 locations (HQ in Jyväskylä)
- Turnover in 2021 ca. 406.1 M euros
- CEO Paula Kujansivu

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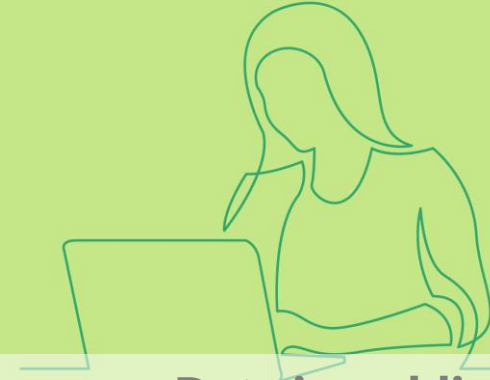
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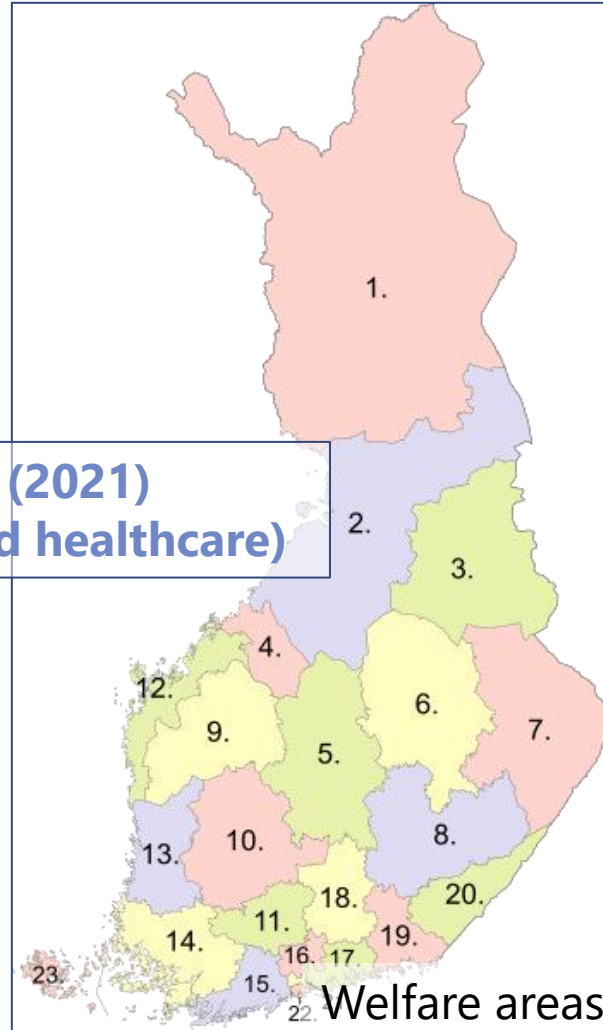
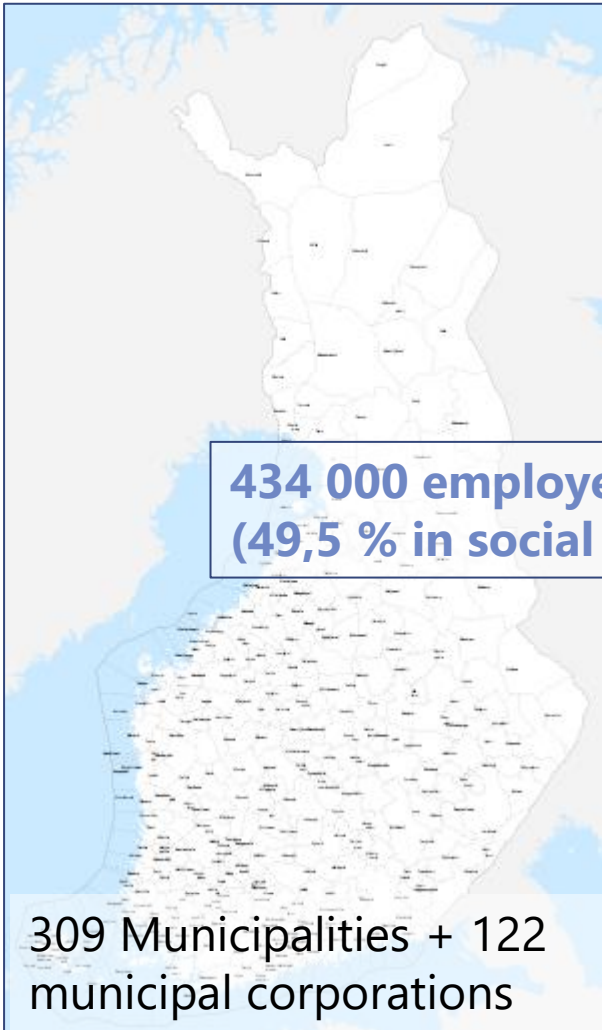


Public sector in Finland

An overall picture of the playing ground

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Public sector in Finland



The Parliament

12 Ministries and the Prime Minister's Office
Governmental Agencies (Offices and Institutes)

78 230 employees (2021)
(40,6 % security;
6.6 % administration, registers, ICT)

- + Governmental Establishments
- + Funds outside government budget
- + State-owned subsidiaries

+ Municipal-owned subsidiaries

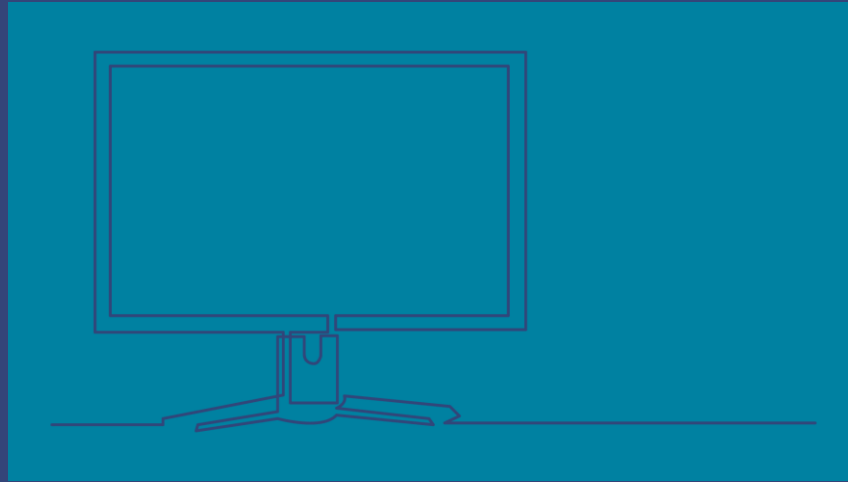
- + Other Public Authorities
- + Companies and organizations with public administration service responsibilities

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Examples of the Finnish public sector service areas

Emergency response, maritime search and rescue	Prehospital care	Healthcare in University hospitals	Rescue services	Healthcare in other hospitals and healthcare centers
Leadership of the state	Government cash and loan management	The police and prisons	Border security	The Customs services
Area supervision and protection	Taxation and government payment transfers	Financial stability, deposit guarantee substitutions	Handling and payment of benefits	Handling and payment of gov. grants
Food production control & safety, water services	Justice services and operations	Foreign affairs	Help to other agencies by the Defence Forces	Unemployment services
Traffic management services	Flood control services	Environment protection	Immigration services	Security deposit control
Operations related to national education	Military defence	Government financial and personnel adm.	Government properties	Others

- Decision in Finnish [Valtioneuvoston päätös valtion yhteisten tieto- ja viestintätekniisten palvelujen tuotannon ja käytön ensisijaisuus-, kiireellisyys- ja muussa tärkeysjärjestyksessä noudatettavista periaatteista ajalla 8.4.-15.5.2020 - Valtiovarainministeriö \(vm.fi\)](#)



Public Sector ICT

How to use ~3 200 000 000+ euros

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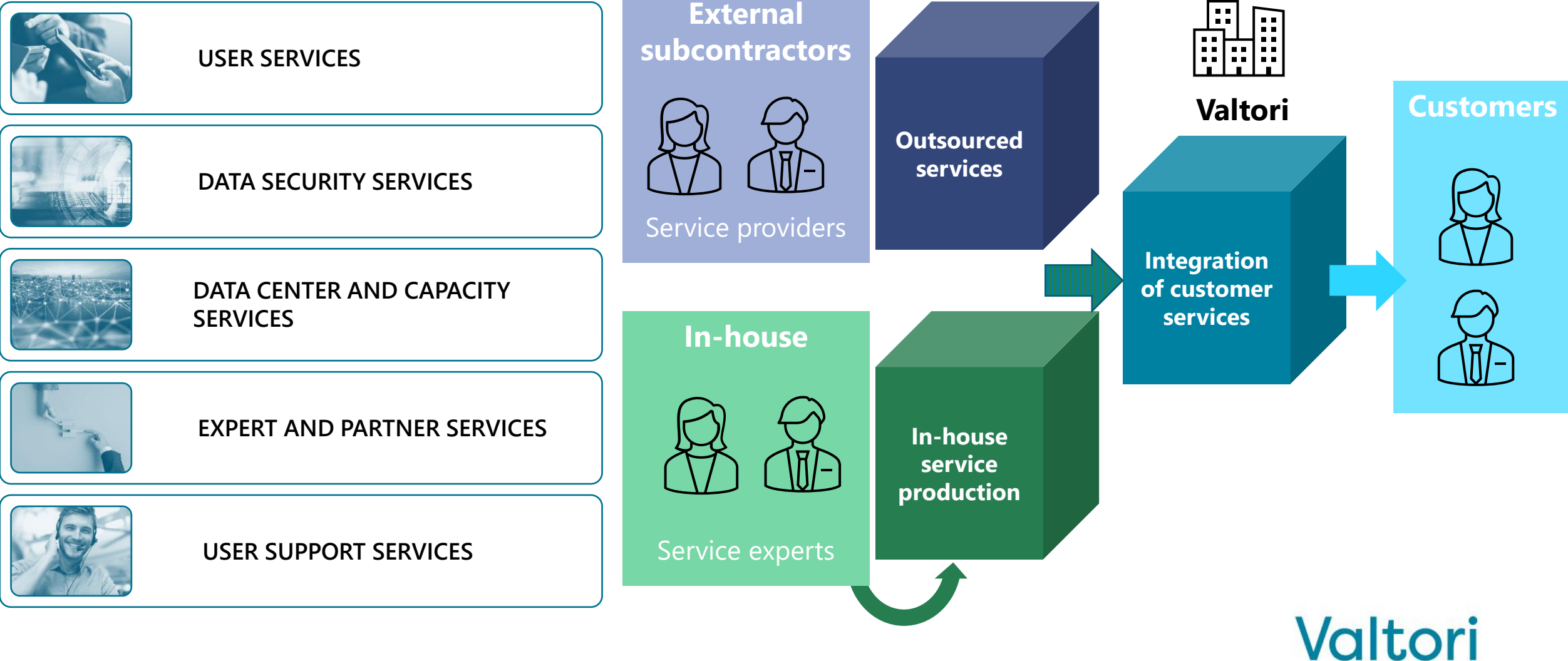
Service centres and joint ventures to reduce costs

Finland	Europe	Other countries
Istekki www.istekki.fi	Statens-IT www.statens-it.dk	Cenitex www.cenitex.vic.gov.au
2M-IT www.2m-it.fi	BRZ www.brz.gv.at	OSCIO https://www.oregon.gov/das/OSCIO
Meita www.meita.fi	APIS www.apis-it.hr	Canada Shared services https://www.canada.ca/en/shared-services.html
Kuntien Tiera www.tiera.fi	Dataport www.dataport.de	Office of Information Technology Services (ITS) https://its.ny.gov/
CSC www.csc.fi	Vitako https://vitako.berlin/	California Department of Technology (CDT) https://cdt.ca.gov/
LapIT www.lapit.fi	MITA https://mita.gov.mt/	
Valtori www.valtori.fi	Assinter https://www.assinteritalia.it/	
Digi Finland https://digifinland.fi/	Logius https://logius.nl/	

Examples

Valtori as a Service Provider

www.valtori.fi



Managed workstations ~ 92 000, servers ~ 17 000



Data in Public Sector

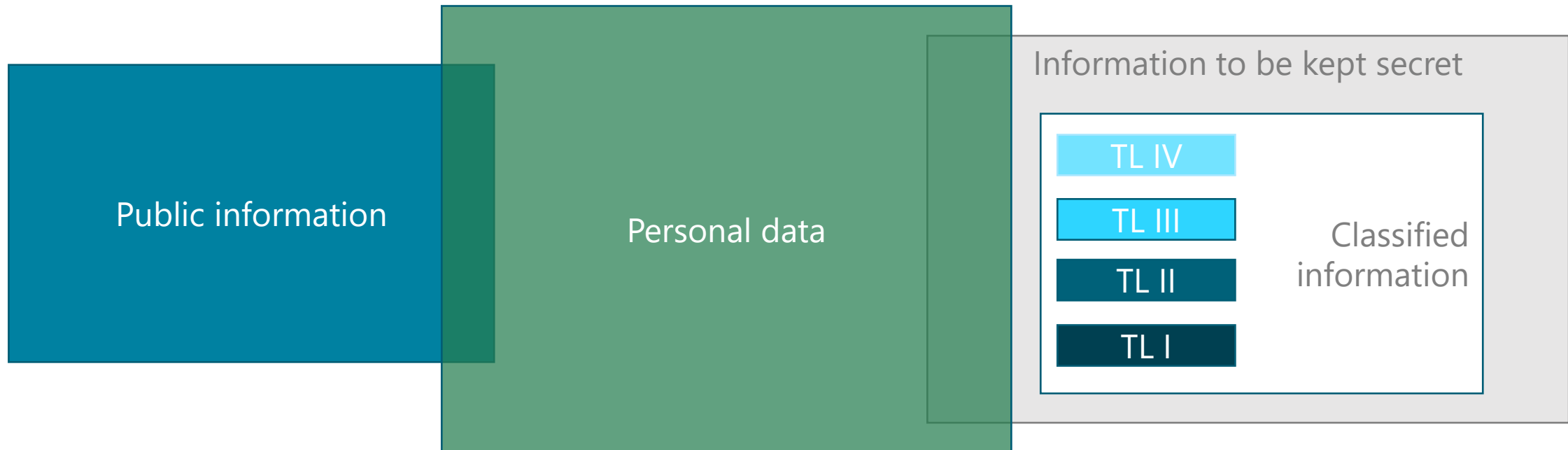
Security first, but when?

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Overall picture and types of information

Overall picture [Information management map of public administration - Exploreadministration.fi](https://www.exploreadministration.fi)

- At this point a collection of high level information reserves

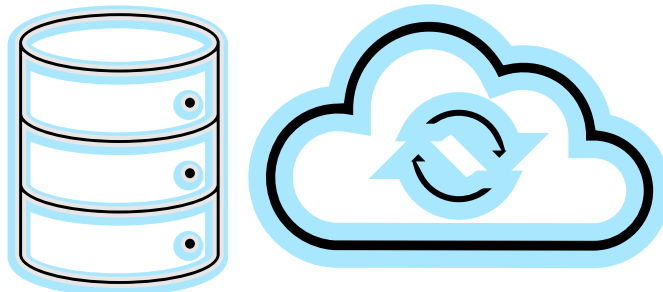


Once Only Principle

[egovernment-tallinn-declaration](https://digital-strategy.ec.europa.eu/en/news/ministerial-declaration-egovernment-tallinn-declaration)

<https://digital-strategy.ec.europa.eu/en/news/ministerial-declaration-egovernment-tallinn-declaration>

- Concept aims at reducing administrative burden on citizens and businesses by re-using and exchange data among public administration
- Partly included in the Finnish [Act on Information Management in Public Administration](#) (906/2019; 20 §)
 - ~ Authorities must aim at utilizing other authorities' data if it has the right to use that data from another authority via electronic data exchange or viewing connection, taking person's rights into account. If an authority uses this possibility, there is an obligation to use this method and no double certificates or extracts can be required.
- Widely used: population, company/community, property, street/road, building/apartment, terrain, other location data bases



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Examples to improve Knowledge Management

- **Exploreadministration.fi** is a service maintained by the State Treasury, which collects information regarding municipal finances and central government
 - Data related e.g. to finance, profitability, personnel
- [Data Room](#) is a piloting independent unit 2023-2025 within the VATT Institute for Economic Research, uses expertise of the Statistics Finland as well as Helsinki GSE (allience of three universities)
 - The aim of the cross-administrative Data Room is producing information rapidly to support decision-making in changing situations.

"For example, we will be able to access and combine data held by the Tax Administration, the Social Insurance Institution and the Customs with a broad scope and in a fast-track process. All data processing will be based on law and take place in Statistics Finland's secure and audited remote access environment. This means that the data can be used with extremely high levels of information security. The Data Room will produce its reports in the role of an authority", Director General Collan describes the activities. 1)

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1) <https://vatt.fi/en/-/newly-launched-data-room-produces-rapid-information-for-decision-making-director-s-position-now-open-for-applications-1>



Securing Public Sector Data

Criterion to Operate in a Secure Way & Auditing

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Auditing is a legal requirement

- The Ministry of Finance is responsible for steering and reconciling the development of public sector, and particularly central government, information security in Finland
- Authorities have connections and functions/processes with international agencies and organizations, additional requirements may apply (e.g. ISO 27001)
- The [act](#) requiring the audit of data security of data and telecommunication system
- Education and information, e.g. yearly [Digital Safety Week](#) (10-14.10.2022)



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- The Government Information Security Management Board (VAHTI) has been established by the Ministry of Finance
- Responsible for steering, developing and coordinating central government information security
- Objective is, by developing information security, to improve the reliability, continuity, quality, risk management and contingency planning of central government functions and to promote information security so that it becomes an integral part of central government activity, steering and performance guidance.
- [Collection of instructions](#) related to for example ICT Contingency Planning, and Information Security Instructions for Personnel were formed **1992-2019** and are no longer updated, however can be implemented to the extent applicable. Some legal requirements may still refer to Vahti-instructions.

Katakri Information Security Audit Tool for Authorities



- Original version produced by the Ministry of Defence, **4th edition 2020** by the National Security Authority (NSA) in the Ministry for Foreign Affairs. Steering group consisted of representatives of ministries (also agencies) as well as industry. Criteria (requirement header, explanation, source, additional information) for:

Security management (T01-T13) – administrative information and personnel security

- E.g. T01 support from the management, guidance, responsibilities – security principles

Physical security (F01-F08) – general, security areas, data security

- E.g. F04 handling and storage of information

Information assurance (I01–I21) – communications, systems and operations security

- E.g. I01 secure interconnection of CIS – security of the network architecture

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Annexes

PiTuKri (version 1.1. March 2020)

- Criteria to Assess the Information Security of Cloud Services are published and maintained by Finnish Transport and Communication Agency Traficom / National Cyber Security Centre
- An assesement tool to improve security of authorities's information to be kept secret in situations where the information is processed in cloud computing environments.
- Criteria for:

Security management

Personnel security

Physical security

Communications security

Identity and access management

Information system security

Encryption

Operations security

Transferability and compatibility

Change management and system development

+ Examples of application, assesement & accreditation processes



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Classified documents & Julkri criteria

- [The Information Management Board](#) is not a general authority for information management; its tasks are related to promoting the implementation of information management and data security procedures laid down in **the Act on Public Administration Information Management** and to ensure that the requirements of the Act are met. The Board publishes recommendations.
- [Recommendation on the handling of classified documents](#) : How to security classify documents and mark them with a security classification to indicate the information security measures to be complied with when handling the documents.
- Assessment criteria for information security in public administration ([Julkri](#)) provides instructions for using them. Version 1.0 in English soon to be published (please see the description sheet in the Finnish version). Subdivisions: 1) administrative, 2) physical and 3) technical security, 4) preparation and continuation management, 5) data protection
 - Over 200 main and subcriteria
 - Excel tool in Annex 2



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Use of criterion

Preliminary information

Data confidentiality

Data integrity

Use case

- Public
- Secret
- TL IV
- TL III
- TL II
- TL I

- Personal
- Special personal

- Minimal
- Normal
- Important
- Critical

SUGGESTED CRITERIA

Administrative security

Physical security

Technical data security

Contingency planning and continuity management

Data protection

SUGGESTED CRITERIA

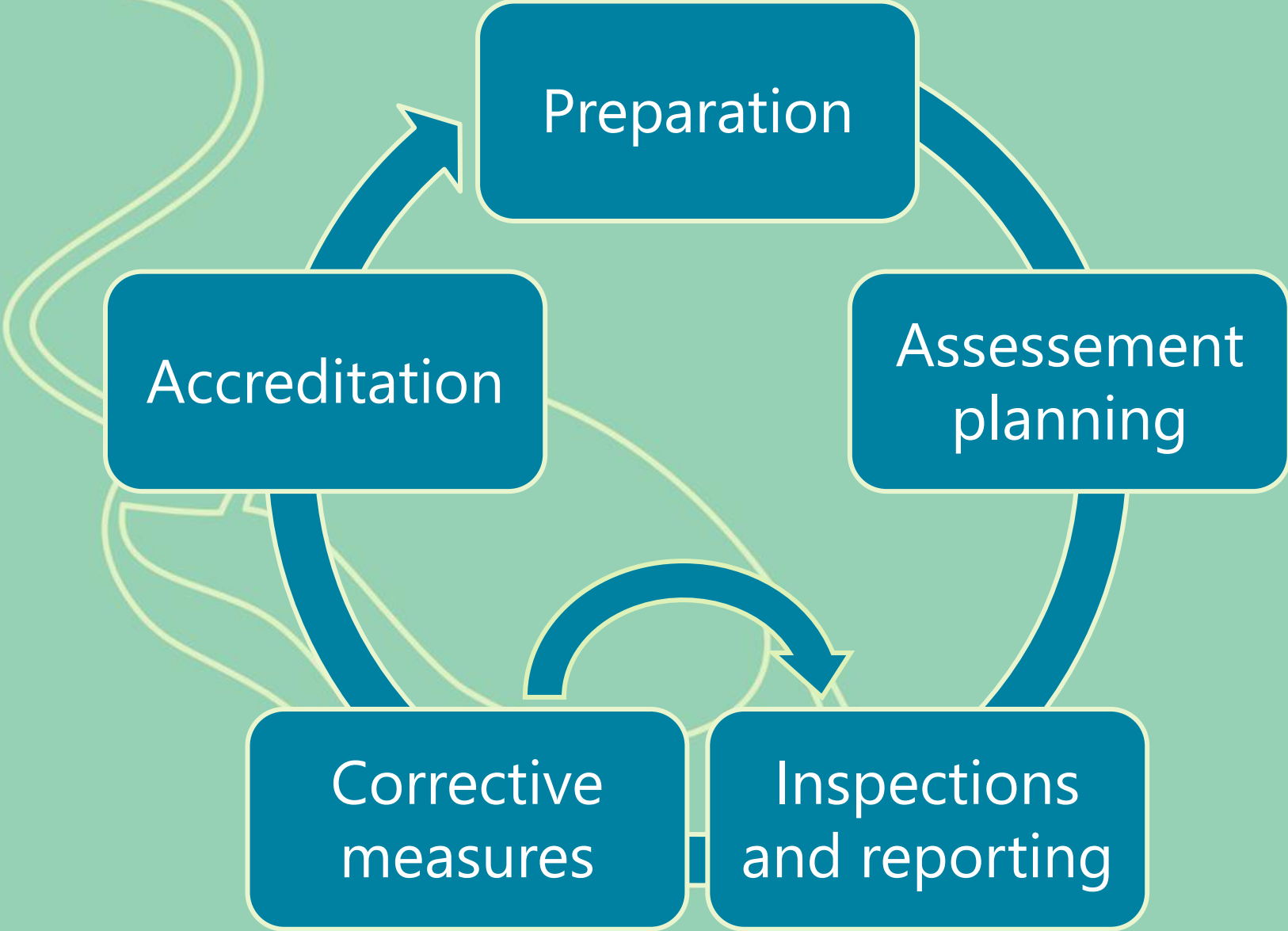
OPTIONAL CRITERIA

Organization risk analysis

LIST OF CRITERIA

alto

Accreditation process





Expectations

On the Agenda Today and Tomorrow

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Examples of Initiatives of Today and Future Expectations



- Parliamentary elections in April 2023
- Adaptations to new and changing situations
- Cooperation also on the international level



Thank you!



**Government ICT Centre
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**Valtion tieto- ja viestintä-
tekniikkakeskus Valtori**



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