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Citizen-centered future governance

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Terminology

- 1. Information Society is a society where [...] information is used as an economic resource, the community harnesses/exploits it, and behind it all an industry develops, which produces the necessary information ... (Nick Moore) (Karvalics)
- 2. Digitisation is creating a digital version of analog/physical things. (iScoop)
- **3. Digitalisation** (not to be confused with digitisation) is a process referring to the ongoing adoption of digital technologies across all possible societal and human activities. (iScoop)
- **4. eGovernment** is defined as a mere delivery of government services and information to the public using electronic means. (Palvia and Sharma)
- 5. eGovernance is beyond the scope of eGovernment. eGovernance allows citizen direct participation of constituents in political activities going beyond government and includes e-democracy, i-voting and participating in political activity online. (Palvia and Sharma)



Historical ideal-types of public management administration

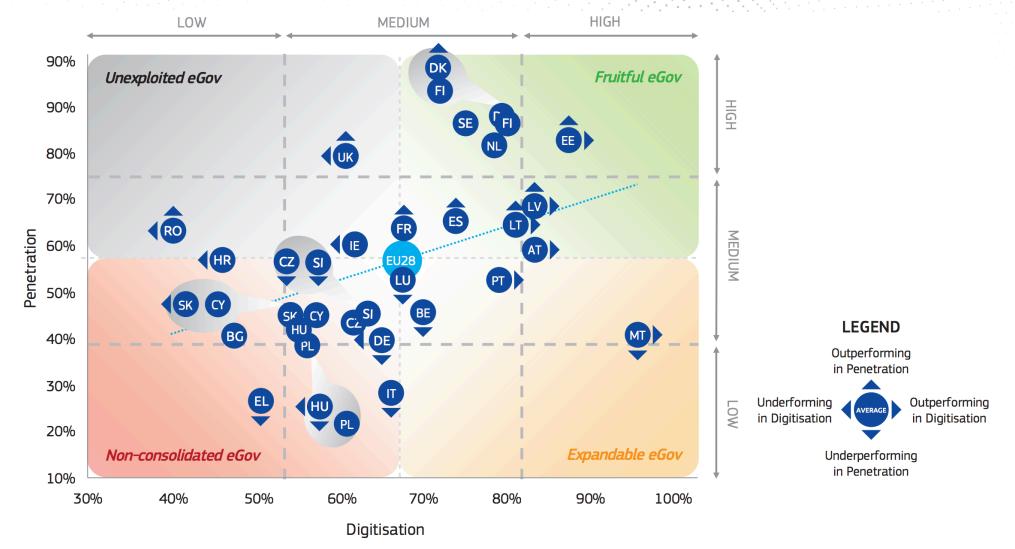
Weberian public administration (Max Weber, 1905)	New Public Management (NPM) (1970s-90s)	Neo-Weberian State (Pollitt, Bouckaert, 2000)
 Bureaucracy the most rational form of administration Hierarchy Chain of command Legality Merit/rules based selection (impersonality) Exclusive employment Rigid division of labor 	 Private sector management principles Separation of policy making and implementation marketization of public tasks introduce markets (price, contracts) 	 'Weberian' elements role of the state as main facilitator representative democracy as the legitimating element administrative law in preserving citizen-state relationship idea of a public service with a distinct status, culture
The written form	within public tasks, quasi-markets	 'Neo' elements Shift of bureaucratic rules from internal orientation towards
 Prefer stability over change Instrumental rationality and bureaucratic reductionism (files and categories) Rules over discretion 	 agencification, 	 external orientation to meet citizens' needs modernization of laws to encourage results based state professionalization of the public service, so that the 'bureaucrat' becomes a professional manager, oriented to meeting the needs of his

Source: Erkki Karo

or her citizen/users

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EU eGovernment Benchmark 2019

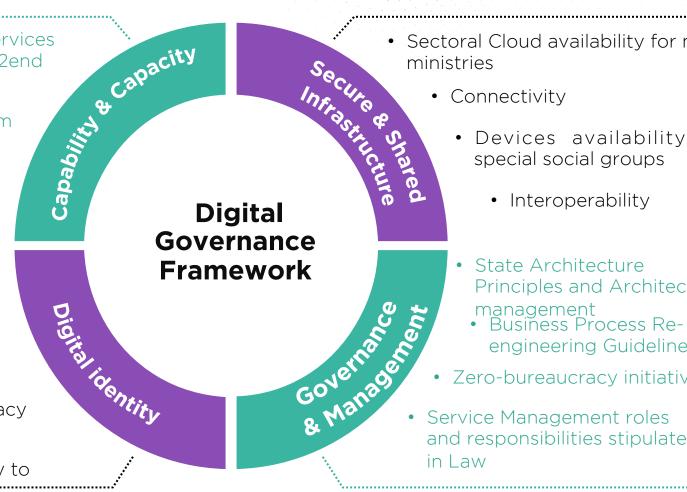


Source: EU eGovernment Benchmark Report 2019

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Estonian Digital Government Pillars

- All G2G, G2B and G2C services available online with end2end service delivery model
- Government as a Platform
- Training & Learning environment with local content with MOOC deliverv model
- PKI based authentication and digital signature
- Trust services without dependencies from hardware
- Data Protection and Privacy assurance
- Delivery of digital identity to foreign investors





• Devices availability for

- **Principles and Architecture**
- engineering Guidelines
- Zero-bureaucracy initiative
- and responsibilities stipulated



Prerequisites for eGovernance

• Legislation

Interoperability Infrastructure and Enablers

- Access to the Internet
- Electronic identity (biometric, ID Card, Mobile eID, Split Key (mobile device is the secure authentication device))
- Digitised information
- Population register
- Secure Data Exchange Layer (peer-to-peer data exchange over encrypted and mutually authenticated channels, based on a decentralised architecture where each peer has an information system that will be connected with other peers' systems)
- Cybersecurity

Societal Enablers

• Educational programmes



Benefits of eGovernment

- 1. Countries digitise their public administrations
- 2. Make their public services available online
- 3. Integrate public services end-to-end
- 4. Manage information sources
- 5. Deal with security and data protection rules
- 6. Public administrations can **save time, reduce costs, increase transparency, and improve the quality of services** that they offer to citizens and businesses.



The case of the first eState Estonia

- eEstonia
- The only digital state in the world, but still not digital era state
- Building blocks:
 - <u>e-identity</u> (ID-card, Mobile ID; eResidency, SplitKey)
 - <u>interoperability services</u> (XRoad, e-Land Register, population register)
 - <u>security and safety</u> (blockchain based security, eLaw, eJustice, ePolice)
 - <u>Healthcare</u> (eHealth records, eAmbulance, ePrescription)
 - <u>e-governance</u> / participation (government cloud 24/7, iVoting, portal, eCabinet)
 - <u>mobility services</u> (intelligent transport systems, mobile parking,

border queue management)

- business and finance (eTax, eBanking, e-Business Register)
- <u>Education</u> (education info system, eSchool, eSchoolbag / MOOCs (online courses))

https://e-estonia.com/ & https://e-estoniax.com/





eGovernment Public Services in Estonia

• <u>Eesti.ee</u> (based on X-Road)

Economic affairs – doing business

- <u>e-Tax/Customs</u>
- <u>e-Business</u> (company registration, data)
- Public finance (budget, procurement) (used by state)

Interior affairs

- Population register (via <u>eesti.ee</u>)
- <u>e-Residency</u>
- e-Police (used by police)
- e-Border Guard (used by state)
- e-Migration (used by state)
- e-Voters register = population register (via <u>eesti.ee</u>)



eGovernment Public Services in Estonia

Education

- <u>e-School</u>
- e-Health
 - e-Hospital, interoperability and state health registries (for medical personnel)
 - Patient portal
 - e-Prescription (via <u>Patient portal</u>)
 - e-Booking every hospital still separate, e.g. <u>Tartu University Clinic</u>

Legal affairs

- e-Justice <u>e-File</u>, Court Information System (<u>KIS</u>) (courts and citizens)
- e-Notary (only notaries)



eGovernment Public Services

Rural economy

- e-Agriculture (via <u>eesti.ee</u>)
- <u>e-Geoportal</u>

Construction and real estate

- <u>e-Cadastre</u> (property, land)
- Building information modelling (BIM) (being developed)

Transport

- Public transport on-demand (rural areas) (being developed)
- <u>e-Ticket</u>
- m-Parking (download in AppStore app <u>Pargi</u>)
- e-Drivers license (in ePolice)



eGovernment Public Services

Tourism

- <u>e-Tourism</u>
- <u>e-Visa</u> (forms only)
- <u>Consular services</u> (for citizens)

One-stop-shop (all of the above)

• <u>Eesti.ee</u>





Civic engagement

- <u>Tartu city budget</u>
- <u>i-Voting</u>



E-Government as **Ecosystem**

Ecosystem – global alignment of many different domains and actors into a new technology platform

- 1. Nation-wide consolidation of similar processes into one function
- 2. Merge of two or more organisations into one organisation
- 3. Nationwide level complete automation of closely related processes between public and private sector









Future of Public Administration under Digital Era Governance

- 1. Waiting for 5th technological revolution deployment period?
- 2. Invention (idea) → Innovation (commercialisation)
- 3. Combustion engine 1859 → Ford Model-T 1908
- 4. 1st eService \rightarrow eGovernment innovation not deployed yet
- 5. Digital Era Governance is not an IT task, but a lifestyle change
- 6. Structured models are missing
- 7. Today's New-Weberian eGovernment getting too complex
- 8. Automation must be done in right sequence without skipping steps





- 1. Citizen centred government services (highly convenient usability)
- 2. Simple all complexity of supply side is hidden from users (state, federal, regional, municipal level)
- 3. One-stop-shop service end to end service at one place
- 4. Once-only-principle citizen givers one info once and government does not ask more than once (interoperability)
- 5. Upstreaming seamless integration of data (pre-filled tax returns, automatic subsidies without asking)
- 6. Cross border digital state platform designed from the beginning in a manner that allows it to be used and data to be shared anywhere in the world



Automation

- Simple automation recording business process events within one organisation and monitoring the agreed key performance indicators. (e.g. simple calendar)
- 2. Advanced algorithms one complex automated system, which brings totally new level of performance efficiency and/or effectiveness without entirely replacing an individual (automatic match of supply and demand, workload optimisation, risk assessment). (e.g. electronic tax declaration)
- 3. Automation of business processes improvement within existing organisational borders (e.g. self service, one-stop-shop, once-only, zero bureaucracy).
- 4. Ecosystem global alignment of many different domains and actors onto a new technology platform (e.g. government as a platform, smart grid, national public key infrastructure (PKI), e-ID with simultaneous access to many different functional areas)



Source: Aare Lapõnin

Example 1: Government as a platform

Existing services to be designed with a new functional structure:

- 1. Government as a platform all public administration business processes captured into one government cloud (think Uber, Taxify, Yandex) with open application programming interfaces (API)
- 2. Two-sided market whenever possible, the government platform opens both supply side (public services) and demand side (users) to market. Can give preference to local service providers.
- **3. Government remains as service provider -** if market does not work (public transport in rural areas, last mile internet, too complex municipal services)
- 4. No redundant business processes all middlemen (unnecessary civil servants) are cut.
- 5. Government's role ensure high quality user experience & manage risks.
- 6. Public servant's role policymaking.

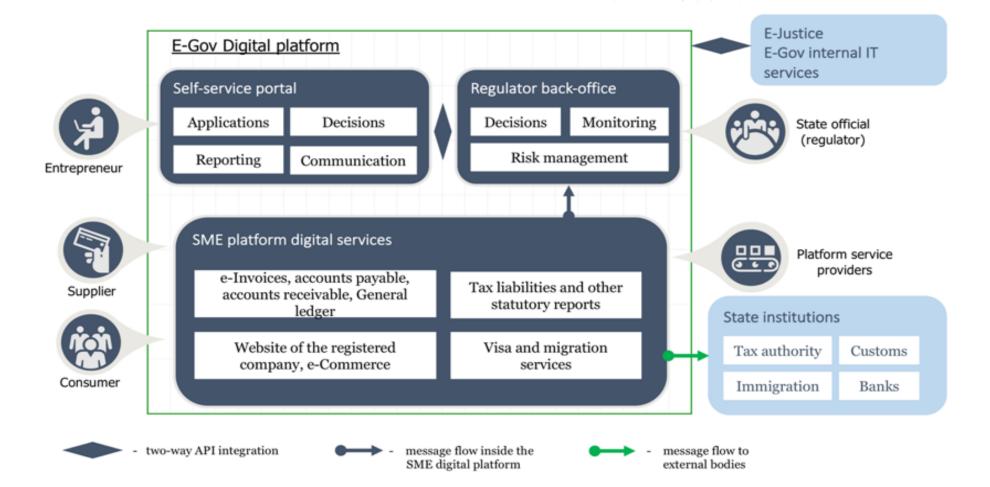


Example 2: One-Stop-Shop Business Ecosystem (SME)

- 1. Enter a new market (register, business licenses, register with tax administration, obtain digital residency, apply for visas, open a bank account, legislation)
- 2. Set up a business (brand identity; web; human resources; customer relationship management (CRM); accounting, procurement, contracting, invoicing, payments, tax reporting, financial reporting; business management training, personalisation of software environment, business transactions monitoring for the sake of statutory reporting; customer service platform)
- 3. Everyday operations (lead management and sales, human resources, labor costs, acquisition of materials and other business-related investments and costs, export and import of goods, financial and business reporting, tax reporting, access to procurement, litigation)



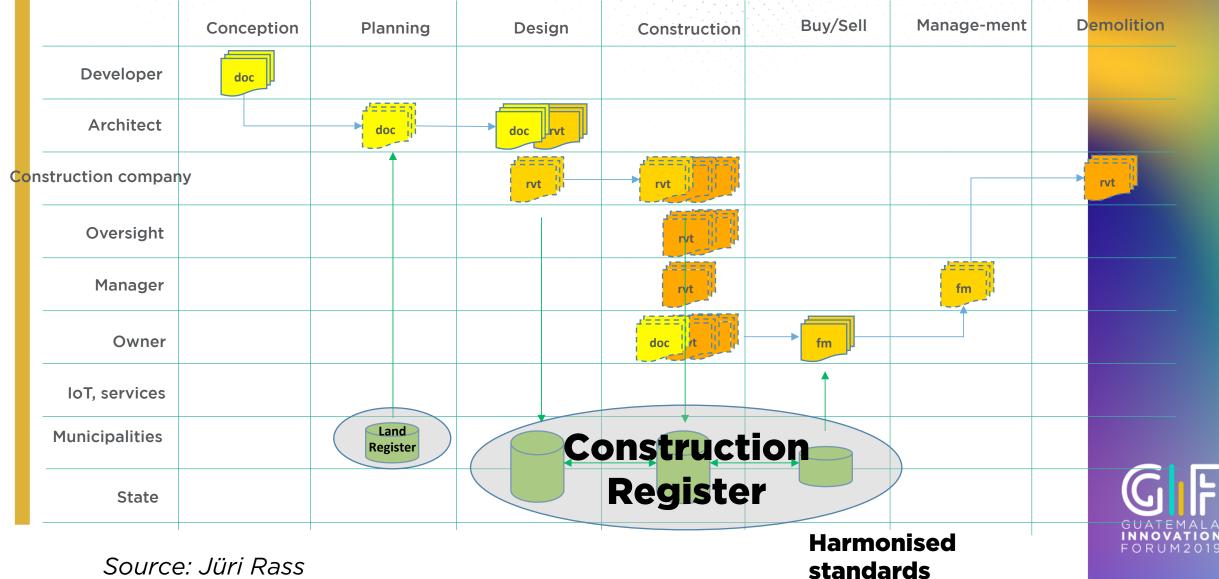
Architecture of the SME digital environment





Source: Aare Lapõnin

Example 3: Construction ecosystem



Planning for Digital Government and Implementing Digital Transformation

1. Current situation

- 1.1 National Policy Priorities & Vision
- 1.2 Back Office Automation Plan
- 1.3 Interoperability
- 1.4 Digital Identity
- 1.5 Enterprise Architecture &
- IT management
- 1.6 Digital Inclusion
- 1.7 Digital Literacy: Gov,
- Citizens, Business, Civil
- Society
- 1.8 Institutional Knowledge Management

2. Principles

2.1 User centricity
2.2 Once-only
2.3 End-to-end services
2.4 Inclusive & Affordable
2.5 eGovernance as
investment, not as an expense

3. Plan for Digital Government

3.1 Objectives & Strategic approach
3.2 Digital Government Architecture
3.3 Back-end Systems
3.4 Service Delivery Channels

4. Digital Enablers

4.1 Enterprise Architecture
4.2 Interoperability
4.3 User Experience
4.4 Trust and Security

4.4.1 Data Protection
4.4.2 Digital Identity
4.4.3 Security & Trust
Services

4.5 Development Tools

5. Institutional Enablers

- 5.1 Capacity Building Model
 5.1.1 Longer-term Strategic
 Planning
 5.1.2 Managers
 5.1.3 IT Units
 - 5.1.4 Administrative Staff
- 5.2 Coordination Mechanism for Implementation
- 5.3 Progress monitoring & Performance management

6. Change Management

6.1 User Centricity & Citizen
Satisfaction
6.2 Building Data-driven culture
6.3 Responsive & Accountable
Administration
6.4 Participatory Mechanisms

7. Government as a Platform

7.1 Operational model7.3 Stimulation & adoption of Innovation



Thank you!

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