

Background information on the study on ‘Resilience of democracies in the course of the digital transformation of the state’

The explicit aim of our study is to contrast the eGovernment benchmarks, indexes or surveys, for example from the EU, OECD or UN, with a different approach. The major well-known reports, for example, place particular emphasis on factors such as ‘user centricity’, ‘user experiences’ or ‘convenience’. They follow the ‘smart government’ logic inspired by the guiding principles of the economy.

While these types of reports primarily measure the progress of government digitalisation in terms of ‘higher, further, faster’, our novel approach attempts to focus more on the ‘how?’ of government digitalisation. Our goal is to understand the effects of the entire digitalisation measures, especially their consequences for the established democratic system. The focus is on the consequences for the separation of powers, federalistic structures, the prevention of the concentration of power and state sovereignty. In short, we are addressing the question of how the digital transformation can succeed in a way that preserves existing democratic structures and institutions in the digital space as well. As part of the study, we will also create a ranking with a cross-country comparison (Switzerland, Germany, Estonia, United Kingdom).

In the context of the resilience and longevity of democratic systems, the way in which the administration is digitally transforming plays a central role. This is because it is currently (in relation to the other powers, parliaments and courts) the pioneer and driving force behind state digitalisation.

Therefore, it is important for us to understand the guidelines and basic principles of administration’s digital transformation process. The developments in the economy over the last twenty years have clearly shown how the market concentration of technology and software providers is constantly progressing. At the same time, digital dynamics are driving actors towards ever greater centralisation. Centralised solutions are considered to be cheaper and more efficient (in the short term). Network effects ensure additional growth once certain IT solutions have been established. And the ‘silo mentality’ that is so typical for administrations can be more easily overcome with a ‘top down’ approach.

However, these developments threaten the current organisational principles of public administration over time. From our perspective, that’s a democratic risk, because an in principle decentralised administrative structure (e.g. division in local governments, as well as in ministerial departments and the like) is more resilient and less prone to interferences from the outside.

A way of digital transformation that combines the most important advantages of centralization and decentralization – i.e. usability and convenience with competitiveness and resilience – is a difficult task. Such a goal can only be achieved by means of open and harmonised standards as fundamental basis. We are therefore particularly interested in the development of data formats that describe the structure and presentation of the data, in interfaces that define how data formats are read or output by a system or application, and in protocols that determine the rules for the exchange process.

Another important aspect is the aforementioned market concentration and the growing dependence on a few private-sector IT solutions. This mainly concerns the areas of operating

systems, office applications, databases and – more recently – the particularly sensitive category of data storage in the cloud. Until now, a few IT companies have already controlled some important digital tools for a variety of government services. If, on top of that, a handful of companies are also hosting an increasing amount of the government's data in their private clouds, the dilemma takes on a whole new dimension and may become a serious threat to state sovereignty.

Questions

Therefore, we are trying to answer the following questions in the context of the digital transformation of public administrations through the study. From the perspective of our study's focus on democratic resilience, we are concentrating only on the aspects of IT standards, IT outsourcing and the cloud:

1. Digitalisation of public administration (fundamental orientation)

a) Internal administrative software solutions (administration <-> administration)

- *Are there trends towards more centralised/uniform software solutions for a specific task across the various organisational levels?*
 - o *For example, large-scale rollout of Office 365 as an office application?*
 - o *For example, central provision of AI models at federal level for subdivisions?*

b) Databases/data storage (administration <-> administration)

- *Did some databases/registers become more centralised as a result of the digitalization process? E.g. is responsibility migrated from the municipal level to federal level (are there examples?)?*
- *How is the digitalisation of the databases/registers implemented in principle from a technical and organisational perspective (based on examples)?*
- *Are there tendencies to shift responsibilities by adapting legal requirements in the wake of digital transformation?*
- *Have data standards been developed for data storage?*
- *If so, in which areas, at which level of public administration? How widespread are standards used in practice ('market penetration')?*

c) Data/information exchange/communication (administration <-> administration / administration <-> external)

- *Have standardised interfaces (reading or output of data by a system) or protocols (process of exchanging data) been defined for the public administration?*
- *If so, in which areas and at which level of the public administration? How widespread are the standards in practice ('market penetration')?*
- *Are privacy-enhancing technologies (PETs) being used or experimented with?*

d) Are the standardisation efforts institutionalised in any way? For example, are they bundled and coordinated in a competent institution or in an association?

- *Are there institutionalised efforts to identify gaps/needs?*
- *Is there a process for developing/finding compromises between the actors, for compatibility/harmonisation and/or for further developing/maintaining the standards?*
- *How is the enforceability of the standards regulated (is the adaptation voluntary, are there incentives for adaptation, is there the possibility to make standards mandatory?)?*

e) 'Government portals' (administration <-> population/companies)

- *How are digital government services 'offered' to the governed?*
 - *Are there many different solutions at the municipal/federal level in the form of apps or portals?*
 - *Or are there more standardised, centralised solutions as a 'one-stop shop'? If so, how are these set up in the background (e.g. as a central platform or rather as a portal network)?*
- *How is the e-ID implemented in technological and organisational terms as a fundamental building block of a digital public administration?*

2. Open government data

- *Is there a legal basis (and thus the possibility at all) for public institutions to make data publicly available?*
- *Is there an obligation to make data publicly available?*
- *What percentage of government data is made available as open government data (rough estimate)?*

3. IT outsourcing and the cloud

- *Are there strategies, legal regulations or special procurement rules to limit the trend towards ever-increasing IT outsourcing?*
- *Are there special restrictions on awarding contracts to Big Tech (the world's largest American or Chinese IT companies)?*
- *What does the national cloud strategy look like? How are national cloud projects implemented?*
- *Are there projects to develop or incentivise open-source solutions or in-house developments?*
- *Are there regulations of/incentives for software diversification (as an alternative to proprietary solutions of large IT companies) in education?*

Since the digital transformation of public administration is such a broad field, it is impossible to fully understand all measures and projects. Therefore, we are trying to understand just the general direction of developments and trends. In our study, we have so far considered or mentioned the following (publicly available) measures and projects for Estonia:

- Cloud-based working place first introduced by the Ministry of Economic Affairs and Communications
- Information System Authority (RIA) databases and data tracker
- Riigipilv (Cloud)
- Roadmap for Privacy enhancing technologies (PET) by Cybernetica
- X-Road /X-tee eco system, DHX
- Eesti.ee
- RIHA, RIHAKE
- Estonian eID
- Public Information Act
- Eesti Standardikeskus (EVS)
- Estonian Open Data Portal

Should we have overlooked any important/central projects or measures, or should you have any further or additional information regarding our questions, we kindly request that you send them to us so that we can take them into account in the study and the evaluation in the country comparison. Thank you very much!

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