THE ESTONIAN E-GOVERNANCE MODEL
TO INCREASE “FUNCTIONAL SIZE” OF A SMALL STATE

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Estonia is the best choice for the case study, because its successful e-Governance model represents a ‘strategy for survival’ of a small state which is not replete with lucrative natural and human resources, high GDP and powerful position in the international arena, and moreover, is burdened by its communist past.

Regaining its independence in 1991, Estonia needed to find a way to build a new distinctive image and reputation as well as improve the situation inside the country. By general consensus among main parties in the Estonian society it was decided in favour of the extensive development of information and communication technologies (ICT). It was possible because of two reasons: (1) Estonia inherited a high-tech scientific environment descended from the Soviet Institute of Cybernetics; (2) the IT sector found a strong support from the group of progressive political leaders (together with the current President of Estonia Toomas Hendrik Ilves).

1993 can be considered as the starting point for e-Governance development in Estonia. At the early stages the Estonian state did not have an official e-governance strategy. It was so called “Project-based development” in ICT. Based on the achievements of different innovative projects, the first national strategy document was elaborated in 1998.

The implementation of E-Governance in Estonia was a result of tight collaboration between government, epistemic IT community, private sector (i.e. banks, mobile operators), E-Governance Academy, EU authorities, different international organizations and foreign investors.

The 4 components of E-Governance infrastructure in Estonia are: wide access to the Internet, the state web-portal, the X-Road technology and the unified system of electronic identification.

Providing wide access to Internet became a matter of the first concern. Internet access has been officially declared as a universal service and a human right just as dignity, equality or other fundamental rights. The Tiger Leap (providing all Estonian schools with computers and Internet connection; the year 1996) and the Village Road (computerization of municipalities; the year 1998) government programs have created a structure for data communication among the whole Estonian territory. First free Wireless Internet access hotspots were launched in 2001.

The first version of a state portal with digitalized content was launched in 1998 and improved in 2003. The current State portal is a common access point to 98% of public e-services in Estonia.

One of the cornerstones of the Estonian e-Governance infrastructure, known as X-Road technology, was launched in 2001. The X-Road is a data exchange layer, which enables secure and compatible Internet-based data exchange between all state’s information systems and the majority of private information systems. X-Road is based on distributed architecture which is a protection against a single point of failure.

The last component of e-Governance infrastructure is electronic identification. The Estonian model of e-Governance supports four methods of electronic identification of citizens in order to use e-services. These are: Internet banking identification package, identification with an ID-card, identification with a secure mobile phone SIM-card (so called “Mobile-ID”) and identification with a smart card “Digi-ID”.

Signing electronic documents with the help of digital signatures is a form of e-identity. Estonia has elaborated special legal acts devoted to digital signatures.

There are socially significant outcomes of the Estonian E-Governance model which can be outlined as follows:
- implementation of e-Governance concept has created additional jobs to maintain its infrastructure;
- Estonia has more than 3000 e-services and more than 200 million of valid digital signatures;
  - 100% of tax statements are submitted online;
  - 99% of medical prescriptions issued by doctors are in a digital form;
  - 90% of daily parking payments are paid with the help of mobile phones;
  - 30.5% of the population vote by Internet.

It should be noted that Estonia has reached the highest level of e-Governance development by encompassing “e-democracy” concept associated with Internet Voting and enhanced citizen participation in governance process with the help of ICT. Estonia is the 1st country in the world to make I-Voting legally binding in 2005. According to the latest data of the UNO, Estonia is one of the world’s top 15 countries in E-Government Readiness Index.