How Estonia became an e-government powerhouse

by **Nick Heath** in **CXO** on February 19, 2019, 11:27 AM PST

Estonia's bold digital initiatives earned it a spot in the highest echelons of the UN's E-Government Development Index. Find out what other countries can learn from Estonia's e-government success.

Estonia
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The European country of Estonia is steeped in history--it's home to the best-preserved medieval capital in Northern Europe. But in the 21st century, Estonia is perhaps most famous for looking to the future, thanks to building an impressive system of e-government.

Estonia is among the elite group of countries in the highest echelons of the UN's E-Government Development Index (EDGI), with its citizens and public servants able to

access a wide range of services online using secure digital IDs, including making payments, accessing full health records, and internet voting.

Estonia has been building out its e-government since the mid-90s, not long after declaring independence from the Soviet Union. The program continues to make headlines with bold new digital initiatives, such as its e-residency program, which gives anyone living anywhere in the world the ability to receive a government-issued digital ID and full access to Estonia's public e-services.

Today, 99% of the public services are available online 24/7, 30% of Estonians use i-Voting, and the country estimates the reduced bureaucracy has saved 800 years of working time.

Estonia's success in reinventing itself as an e-government powerhouse is testament to the work it did putting the building blocks in place in the late 1990s and early 2000s, says Arthur Mickoleit, senior principal analyst at Gartner who specializes in digital government.

"Estonia really got the foundations right quite early in the process," says Mickoleit. "Whenever you look at modernizing an administration, providing digital government services, or just providing better services to citizens, you need to put several things in place, which they did early on."

According to Mickoleit, there were three key foundational projects:

- Digitizing registers held by public bodies to provide the necessary information to support e-services;
- building the X-Road platform that connects the wealth of different systems used in the public and private sector and allows them to share information; and
- giving citizens the means to securely access online services by providing digital ID cards and making digital signatures equivalent to handwritten signatures.

The early success of e-commerce and e-banking in the country also helped popularize and foster acceptance for the idea of using services online.

"People were familiar with doing very important things online, identifying themselves online, and on that basis it was then possible to also branch out into the government world," says Wolfgang Drechsler, professor of governance at Tallinn University of Technology in Estonia.

Estonia's reputation as something of a trailblazer can, in part, be explained by its small size and trust in government, says Gartner's Mickoleit. "Smaller countries that are more advanced can spearhead certain types of projects. Estonia is experimenting with a digital embassy, e-residency, trying Blockchain in different areas."

While this success is sometimes attributed to Estonia having a clean slate to work with after declaring independence from the Soviet Union in the early 1990s, Gartner's Mickoleit

says this is not the case, pointing out that Latvia and Lithuania were in a similar position but haven't achieved similar success.

Estonia may have been at the vanguard of e-government, and its programs may still be prestigious, but in the intervening years other countries have surpassed it in certain areas, and in 2018 it dropped to number 16 in the UN's EDGI rankings.

"The public service position is not the best in Europe, let alone the best in the world," says Drechsler. "In Estonia you don't have mobile payments, you don't pay with an app, you pay with a card, some people would say that's archaic in 2019," he says, giving the example of how widespread paying with your mobile phone is in countries like China.

Despite the country's e-services being superseded in some respects, Drechsler stressed that Estonia's offerings as a whole are still "very good, there's no question about that". Drechsler says it's also important not to discount the role Estonia's e-government program has played in bolstering the country's global reputation. He says certain initiatives, such as the much-vaunted e-residency program, are more important from a PR perspective, to reinforce the idea that Estonia is a digital powerhouse, than as practical projects.

"What you have in Estonia is a prioritization of e-governance, this was very quickly seen as the main USP of Estonia as a country, to put it on the map in a positive way. "The priority of the e-governance trajectory was to look good. It's not just smoke and mirrors, there is something there and it works, but it has also gotten extreme mileage PR-wise for Estonia."

What can other countries learn from Estonia's approach?

Countries should be careful not to emulate Estonia's approach too closely, says Drechsler, due to the country's unique nature, with its small size and trusting relationship between the citizens and government.

"It's very interesting for European countries to look at Estonia, but it's very hard to transfer things from Estonia because Estonia is a very specific environment. You can learn a lot from Estonia on a very technical level, how to do certain things, but it's just not feasible to just take the same approach of [government] doing what the engineers tell them to do."

Rather than trying to follow the Estonian model wholesale, Mickoleit says European countries are instead pursuing "really impressive digital change" inspired by Estonia, Denmark, and also the [UK's Government Digital Service](), citing recent initiatives in France and Italy. "Estonia is a smaller country with less administrative complexities, that helps. But at the same time it would be too easy an excuse for a bigger government to say 'Well we can't change'," he says.

"Countries like France and Italy were inspired by what the UK and the Nordics have been doing in bringing design thinking into the public sector."

Mickoleit describes this design thinking as "inviting users to give their views on how a service is functioning", combined with experimentation and iterating on prototypes to improve that service.

"It's about embracing the data culture of innovation and experimentation, that's a big thing in public administrations at the moment and it's showing good results," he says, referring to Germany recently launching its government portal in beta.

Estonia also offers an object lesson in how to handle setbacks in e-government. Public sector IT projects are famously prone to not running smoothly, and Estonia has had its share of issues--most recently, the discovery in 2017 that hardware underpinning the country's mandatory ID cards was vulnerable to attack. The government moved quickly to convene a press conference to inform the country of the risk and the need for citizens to quickly renew the certificates of their ID cards to eliminate the risk of identity theft.

"When the ID card problems became public, critics were invited to Tallinn in order to talk about them publicly and to see what could be done, and that really alleviated a lot of concerns both inside and outside of Estonia," said Drechsler. "This is a good model from Estonia, and this is a positive case from which other governments can learn very well."

Ultimately, Estonia's reinvention as a leader in e-government demonstrates to the rest of the world the importance of identifying new and more efficient ways to deliver public services, and how the benefits of doing so will generally outweigh the risks, says Gartner's Mickoleit.

"One of the big lessons to learn in other countries is that there may be a few mistakes and failures along the way, but it's even more risky not to embrace digital change because you will be outpaced by developments happening outside of the administration," he says.