

# Estonia's digital future: how to go from e-government to e-business?

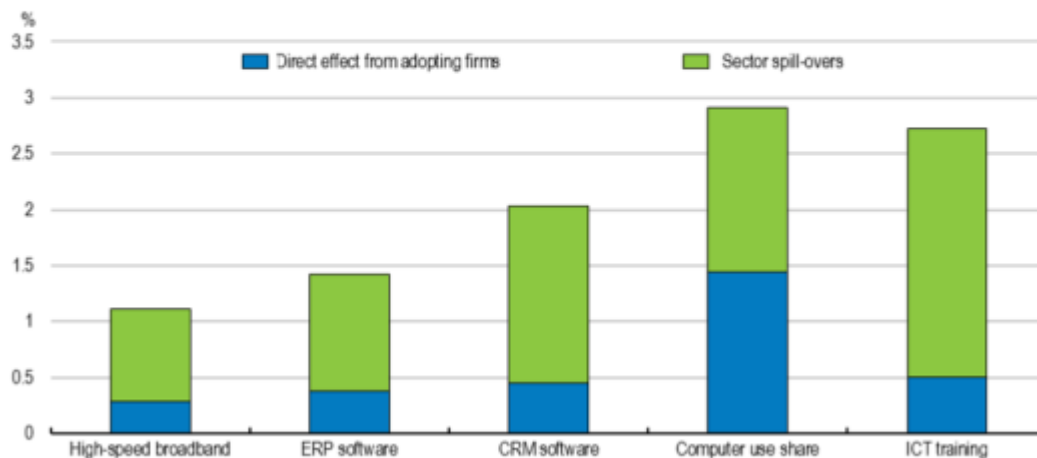
by Margit Molnar and Jon Pareliussen, Estonia Desk, Economics Department

Estonia ranks already among the top countries in e-government. Citizens can do basically anything online except for a very few things like getting married or divorced and selling or buying real estate. The X-road, the secure communication protocol underlying e-government services, was built on the same principles as the block chain, even before the word block chain was invented.

However, despite a number of successful unicorns, digitalisation, is yet to be fully embraced by the business sector, which uses fewer robots, back-office functions and customer-oriented services than in other countries. Automation with proven digital technologies can bring about considerable efficiency gains. Since the technology frontier is shifting constantly, Estonia should seize the opportunity to leapfrog and invest in digital infrastructure. The benefits could be significant. New OECD research shows that the potential to boost productivity by intensifying digitalisation in the private sector is considerable (Figure 1). An Estonian firm increasing the share of employees using computers for work purposes by 10 percentage points could for example see 1.5 percentage points higher annual productivity growth and create positive externalities of a similar magnitude to other firms in the sector.

**Figure 1. Boosting digital diffusion is a way to catch up with productivity growth at the frontier**

Percentage points annual productivity growth premium associated with a 10 percentage points higher digital adoption at the sector level



Source: Pareliussen and Mosiashvili (2020).

Such a boost to productivity would come at the right time given the sluggish recovery of productivity growth following the Global Financial Crisis, in Estonia and many other OECD countries. Several factors hinder digital adoption at the enterprise level, including the lack of awareness, small scale, lack of the necessary skills that could be complementary to technologies, lack of access to high-quality infrastructure and to financing. The 2020 Economic Survey of Estonia highlights the following policy priorities:

- To raise awareness, success stories should be better advertised and access to digital diagnostics, a government-co-sponsored exercise should be streamlined to help firms determine their needs.
- To address the issue of small scale of most Estonian firms, the government could support industrial associations in providing platforms and smart digital solutions in areas such as joint marketing, supplier interactions and customer support.
- To acquire the necessary skills, the drive to strengthen teachers' performance in teaching digital skills should be

reinforced and cooperation between the public sector, labour unions and employers to boost vocational education and training and continuous learning enhanced. In the same vein, implementing a programme to increase the use of high-performing managerial and organisational practices with a strong element of network-building to disseminate good practice and mutual learning could underpin skill use and innovations.

- To enhance access to high-quality infrastructure, better coverage of ultra-fast broadband should be provided at an affordable cost, including subsidising last-mile rollout for smaller enterprises.
- To improve access to financing, alternative sources should be promoted.

#### **Sources:**

OECD (2019), [Economic Survey of Estonia](#). OECD Publishing, Paris.

Pareliusson, J. and N. Mosiashvili (2020), “Digital technology adoption, productivity gains in adopting firms and sectoral spill-overs – Firm-level evidence from Estonia”, OECD Economics Department Working Papers, OECD Publishing, Paris, forthcoming.