Lithuania ranks 13th out of the 28 EU Member States in the European Commission’s Digital Economy and Society Index (DESI) 2016. Lithuania is part of the lagging ahead cluster of countries, because its DESI score is above the EU average but overall the country has developed slower than the EU over the last year.

With the exception of Human Capital, Lithuania scores above the EU average and excels in Connectivity. Lithuania is below the EU average for Human Capital and is improving slower than the EU average as well. A sizeable part of the Lithuanian population therefore cannot or is not motivated to take full advantage of Lithuania’s excellent infrastructure, and, based on the relatively slower rate of improvement, this seems to be a difficult and complex problem to solve.

Lithuania seems fully aware of the problem and its complexity as reflected in its 2014-2020 digital agenda strategy, and adopted specific objectives to deal with it, based on concrete targets for 2020. The digital agenda strategy is funded from both national and EU Structural Funds. As always, effective implementation measures are key for overcoming challenges in this area. Information on the implementation of the agenda each year is included in the annual performance report of the Ministry of Transport and Communications.

1 – Connectivity

Lithuania is one of the European leaders in NGA deployment, with one of the best NGA coverages in Europe, significantly above the EU average (97% versus 71%). These excellent results have been achieved through broadband infrastructure investment projects RAIN I and RAIN II, financed with European funding, and now using the third phase of the RAIN project “Development of Rural Area

1 The Digital Economy and Society Index (DESI) is a composite index developed by the European Commission (DG CNECT) to assess the development of EU countries towards a digital economy and society. It aggregates a set of relevant indicators structured around 5 dimensions: Connectivity, Human Capital, Use of Internet, Integration of Digital Technology and Digital Public Services. It clusters countries in four groups: Running ahead, Lagging ahead, Catching up and Falling behind. For more information about the DESI please refer to https://ec.europa.eu/digital-single-market/en/desi

2 DESI Country Profile for Lithuania: https://ec.europa.eu/digital-single-market/scoreboard/lithuania

3 In the DESI 2016, Lithuania is part of the lagging ahead cluster of countries: countries who score above the EU average but whose score grew slower than that of the EU as a whole (in comparison to the DESI 2015). Other lagging ahead countries are Belgium, Finland, Denmark, Ireland, Luxembourg, Sweden and the UK.

Information Technology Network\textsuperscript{5}, focused on masts and further middle mile roll-out. Telecom operators focussed on FTTP deployments rather than upgrades to VDSL, supported by a policy of duct access, resulting in FTTP coverage being the highest in the EU (95%). LTE coverage is also slightly higher than the EU average in Lithuania, while mobile broadband take up, although improving, is still below the EU average (64 subscriptions each 100 people versus 75 EU average). Lithuanian consumers also benefit from the most affordable broadband in Europe, when compared with their income: an average EU consumer has to spend almost twice as much of their - on average, higher - income on broadband as a Lithuanian resident. However, take-up of broadband services (including fixed and mobile broadband) is significantly below the EU average (60% versus 72%). Lithuania still has to fully transpose the Cost Reduction Directive\textsuperscript{5} which could help to speed up broadband roll-out.

2 – Human capital

On Human capital, Lithuania ranks 19th among EU countries; this is below the EU average. Currently, the share of regular Internet users is also below the EU average and does not show any year-on-year growth. As a result, Lithuania has fallen even further behind in this dimension, ranking only 21st. Barely half of Lithuanians have basic digital skills. Furthermore, 25% of Lithuanians has never used the Internet, significantly worse than the EU average (16%). As in other countries, this figure is higher among for example older people and among people with a low general education. When it comes to the more specific section of the labour market of ICT specialists, the share of ICT Specialists as a fraction of employed individuals is also very low (1.9% compared with the 3.7% EU average). A positive sign for the future is that Lithuania has a relatively high share of STEM graduates.

As described in the European Semester Country Report for 2016, Lithuania faces the challenge of managing the transition from a low-cost, low-tech economy to a more skills- and innovation-intensive economy. The report concludes in general that skills shortages have emerged and are expected to become more acute in the future. In addition, the education and training on offer is not always relevant to the labour market and low rate of adult learning remains a weakness. Addressing the issue of digital skills would presumably help address the more general problems as these are critical skills for the labour market of an innovation-intensive economy.

The Lithuanian Digital Agenda recognises various issues relating to Human Capital. Regarding the digital divide, it recognises that some groups are more vulnerable and less able/motivated to benefit from the Internet. This digital divide for example seems to be apparent between senior and younger citizens, people living in rural areas versus urban areas and people with low versus high incomes. The specific difficulties disabled people may face when it comes to accessing and using the internet is also recognised. Lithuania therefore set the objective to reduce the digital divide by encouraging people to gain knowledge and skills required for the successful use of the ICT. The Digital Agenda Strategy sets concrete targets to achieve by 2020, for example, to decrease the percentage of people who never used the internet to 10% and to increase the use of internet among vulnerable groups to 74%. The strategy also sets the target to increase significantly to 95% the share of Internet users with higher and medium skills to use the Internet.

Increasing the digital skills of the general population is bound to have a positive effect on general competences needed in labour markets. This is complemented by a 2015 action plan on non-formal adult education with the aim of helping adults to acquire or improve basic competences. In a digital world, digital skills should count as basic competences. In addition, the Digital Agenda strategy recognises a significant shortage of ICT professionals and sets an objective to encourage young people to apply for an ICT study programme. Finally, Lithuania has a National Coalition for Digital

Jobs, which should also help to address the Human Capital problems faced by Lithuania and complement centralised government initiatives.

The Digital Agenda strategy shows that these issues are important for Lithuania and the detailed targets also suggest a commitment to deal with these issues. On 8 September 2014, a multi-fund operational programme for Lithuania, financed by the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Social Fund (ESF), was adopted to address the country's goals within the EU 2020 strategy. One of the objectives is to enhance access to, use of and quality of ICT technologies (ICT). Since the digital agenda strategy was adopted already two years ago, the monitoring and interim evaluation of the different follow-up initiatives is important for the success of the strategy.

3. Use of internet services

Lithuanian Internet users are particularly keen on consuming online news content, and interacting via video calls. They are comparable or above the EU average in exploiting most other typical Internet services, such as banking, social networks, music, videos and games. Although Lithuanians still seem relatively reluctant to shop online as compared with other Europeans (44% of Internet users shop online as compared to the 65% EU average), there has been a significant increase among Internet users who shop online relative to last year.

4 – Integration of digital technologies by business

In Integration of Digital Technology by businesses, Lithuania progressed somewhat relative to last year and places 8th in the ranking of EU Member States. In 2015 Lithuanian enterprises were embracing the opportunities offered by various digital technologies. There seems to be a steady, though not striking increase in the number of enterprises which make use of several specific applications of digital technology in business activities. Although only 11% of SMEs sell online, this is already slightly above the EU average. For an SME in a relatively small EU Member State, e-commerce offers access to a much larger market. 10% of SMEs sell online to other EU countries, also slightly above the EU average. There is therefore scope to convince more and more SMEs of the benefit of selling online to other EU markets.

As evidenced by the Digital Agenda strategy, Lithuania is aware of the potential benefits of increased online sales and the adoption of digital technologies by businesses in general. One of the main goals of the strategy is to promote the application of ICT in the development of e-business and sets concrete targets to this effect. On the supply side this includes the goal to increase the share of companies selling online to 45% by 2020. As for SMEs the target is roughly to double the share of online sales in the overall turnover of SMEs (20% by 2020). On the demand side, the target set by the Digital Agenda strategy is that at least 70% of the population should have bought or ordered goods via the Internet. Again, monitoring and evaluation of individual follow-up measures is important for successful implementation.

5. Digital Public services

Digital Public Services is the dimension where Lithuania ranks 12th among EU countries in DESI. With the exception of Open Data, Lithuania is above the EU average for the relevant DESI indicators. The use of eGovernment services was facilitated by the introduction of eID cards in 2009.

This overall performance is consistent with the latest eGovernment Benchmark Report, which places Lithuania above the EU average for the main dimensions relating to the domestic provision and use of eGovernment services. However, Lithuania places below average in cross-border access and use.
Lithuania joined a European STORK project in 2010, which aims to implement EU-wide interoperable eIDs. Interconnection activity has already been completed with 8 member states; Lithuania’s participation in this pilot project signals an interest in increasing cross-border mobility when it comes to accessing and using eGovernment services.

Despite its relatively good performance so far in this dimension, Lithuania aims to develop eGovernment services further. The Digital Agenda strategy contains concrete measures and aims to further improve eGovernment within Lithuania by bringing additional services online and by encouraging even more people to use these services. On the supply side, this scheme promotes interoperability between the information systems of different state and municipal authorities and agencies and emphasises information security. The Digital Agenda strategy also recognises the potential benefit of providing accessible and usable public data both in general and in the specific area of transport and spatial data management.

Highlight: Network of Public Internet Access Points (PIAPs)

In 2008, the project 'Development of Public Internet Access Points' (PIAPs) was completed. It was financed by the EU Structural funds and the Lithuanian Government, and implemented by the Ministry of the Interior. This brought the total of such access points to 875 throughout the country, making Lithuania a European leader in this respect. The PIAPs were mostly established in regions with poor communication infrastructure. The centres operate in the most frequently visited institutions in rural areas, such as schools, libraries and, community centres, providing access to the Internet and electronic content to all societal groups. They also serve as the ICT education, consultation and knowledge centre. The network of PIAPs is integrated as a single administrative system.