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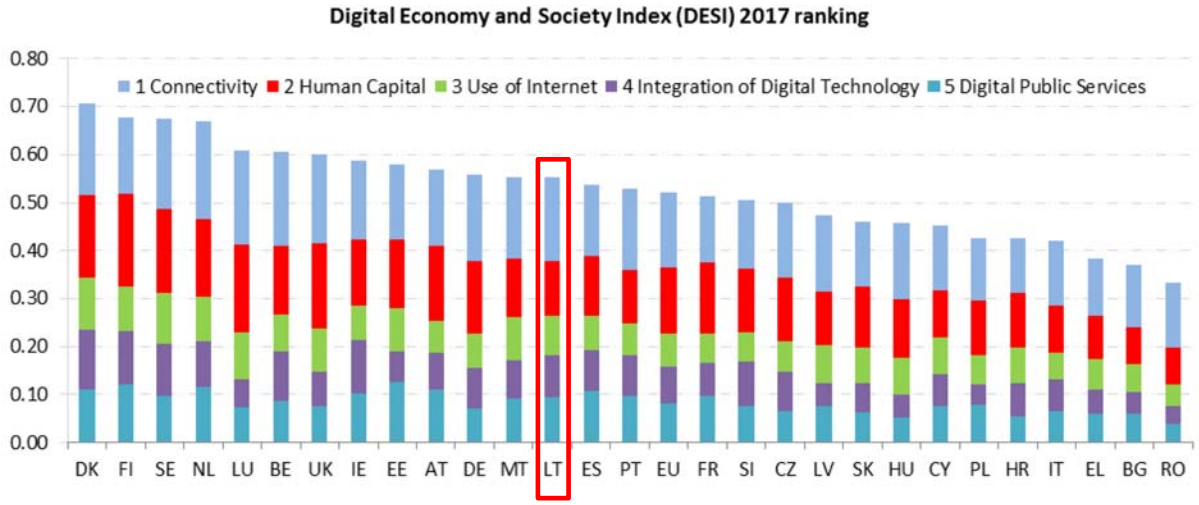
COMMISSION STAFF WORKING DOCUMENT

Europe's Digital Progress Report 2017

Europe's Digital Progress Report (EDPR) 2017 Country Profile Lithuania

Europe's Digital Progress Report (EDPR) tracks the progress made by Member States in terms of their digitisation, combining quantitative evidence from the Digital Economy and Society Index (DESI)[1] with qualitative information on country-specific policies. It is structured around five chapters:

1 Connectivity	Fixed broadband, mobile broadband, broadband speed and prices
2 Human Capital	Internet use, basic and advanced digital skills
3 Use of Internet	Citizens' use of content, communication and online transactions
4 Integration of Digital Technology	Business digitisation and eCommerce
5 Digital Public Services	eGovernment



[1] https://ec.europa.eu/digital-single-market/en/desi

	Lithuania		Cluster	EU
	rank	score	score	score
DESI 2017	**13**	**0.55**	**0.54**	**0.52**
DESI 2016[2]	12	0.53	0.51	0.49

Lithuania ranks 13th out of the 28 EU Member States in the European Commission Digital and Society Index (DESI) 2017.[3]

Lithuania's DESI score is above the EU average but overall the country has developed slower than the EU over the last year. Lithuania performs particularly well in Connectivity and Integration of Digital Technology. Lithuania is below the EU average for Human Capital, which is largely due to a drop in the share of STEM Graduates and the persisting low share of ICT specialists as a fraction of employed individuals.

Lithuanian internet users are very active online in using new services over mobile, e.g. payment instruments, mobile e-signature, car parking, banking services, etc.

Concerning Digital Public Services, Lithuania is above EU average and has made continuing progress towards increasing its uptake of eGovernment, compared with previous years.

Lithuania belongs to the Medium performing cluster of countries.[4]

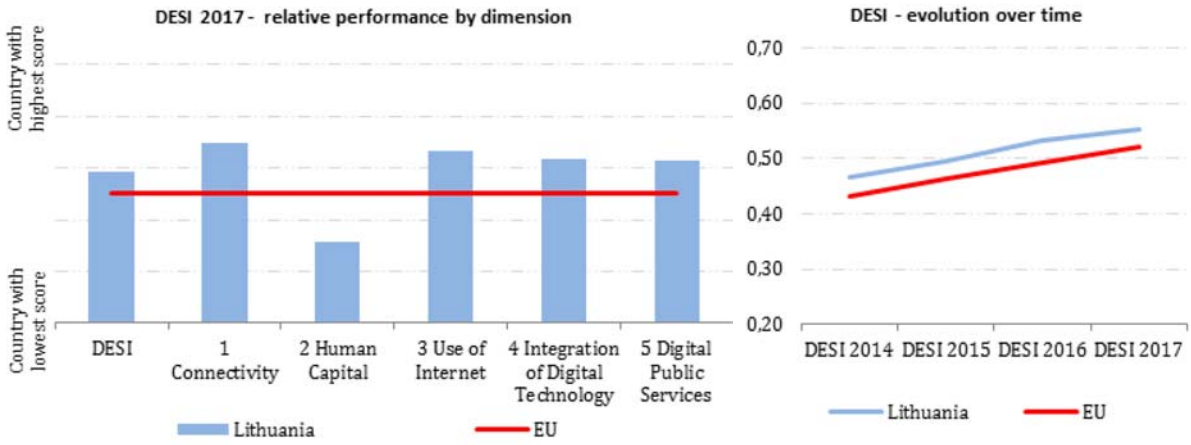
The Information Society Development Programme 2014 – 2020 Digital Agenda strategy for Lithuania, which replaced the former Lithuanian Information Society Development Programme 2011 – 2019, was adopted in March 2014 and amended in September 2015[5.]

[2] The DESI 2016 was re-calculated for all countries to reflect slight changes in the choice of indicators and corrections to the underlying indicator data. As a result, country scores and rankings may have changed from the previous publication. For further information please consult the DESI methodological note at https://ec.europa.eu/digital-single-market/en/desi.

[3] DESI Country Profile for Lithuania: https://ec.europa.eu/digital-single-market/en/scoreboard/lithuania

4 Medium performing countries are Latvia, Czech Republic, Slovenia, France, Portugal, Spain, Lithuania, Malta, Germany and Austria

[5] https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/a66c0760b04011e3bf53dc70cf7669d9



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1 Connectivity	Lithuania		Cluster	EU
	rank	score	score	score
DESI 2017	**8**	**0.70**	**0.63**	**0.63**
DESI 2016	8	0.69	0.60	0.59

Connectivity

	Lithuania					EU
	DESI 2017			DESI 2016		DESI 2017
	value		rank	value	rank	value
1a1 Fixed Broadband Coverage % households	**99%** 2016	↑	**16**	**98%** 2015	**15**	**98%** 2016
1a2 Fixed Broadband Take-up % households	**63%** 2016	↑	**22**	**60%** 2015	**24**	**74%** 2016
1b1 Mobile Broadband Take-up Subscriptions per 100 people	**75** June 2016	↑	**19**	**64** June 2015	**20**	**84** June 2016
1b2 4G coverage[6] % households (average of operators)	**96%** 2016		**4**	**NA**		**84%** 2016
1b3 Spectrum[7] % of the target	**84%** 2016	↓	**5**	**89%** 2015	**4**	**68%** 2016
1c1 NGA Coverage % households	**NA** 2016			**NA** 2015	**4**	**76%** 2016
1c2 Subscriptions to Fast Broadband % subscriptions >= 30Mbps	**61%** June 2016	↑	**7**	**58%** June 2015	**4**	**37%** June 2016
1d1 Fixed Broadband Price[8] % income	**1.0%** price 2016, income 2015	↓	**6**	**0.7%** price 2015, income 2015	**1**	**1.2%** price 2016, income 2015

Lithuania performs well and is making progress in the Connectivity dimension, keeping its 8th place in the EU ranking. While Lithuania is still performing below EU average in the take-up of fixed broadband, possibly due to relatively low internet skills, subscriptions to fast broadband are increasing. Demand for these services is almost the double the EU average

[6] This is a new DESI indicator measuring the average coverage of telecom operators' 4G networks.

[7] There is a decrease in most of the Member States due to the additional EU harmonisation of the 700 MHz band in April 2016.

[8] Due to a slight methodological change, historical data was re-calculated.

and demonstrates year-on-year growth. Lithuania has one of the highest levels of 4G coverage, and is well above the EU average. Even though mobile broadband take-up has considerably improved, it has not risen enough to catch up with the EU average.

In line with its 2014 Programme on the Information Society Development for 2014–2020 Digital Agenda for the Republic of Lithuania.[9] The Lithuanian government is planning to develop the high-speed broadband communication infrastructure in areas where the development of the infrastructure and the provision of electronic services cannot be ensured by the market, and to promote competition in the market for broadband communication as well as for the use of the broadband communication services. In order to achieve the objectives mentioned above, the following targets have been set by 2020: 50% of households in Lithuania should use 100 Mb/s or faster broadband communication, while 30 Mbps and faster broadband communication should be accessible, i.e. cover 100% of households throughout the territory of the country; 50% of total Lithuania's households users should have subscriptions for 100 Mbps and faster broadband connection; and 95% of Lithuania's enterprises should use the high-speed internet. High-speed mobile broadband communication is rolling out across the country thanks to increasing 4G network coverage.

Lithuania launched a public funded project based on the direct investment model in 2015. The model was chosen as the most effective approach to achieve open access, pricing and affordability. Prices of services provided by PE *Plačiajuostis Internetas*[10] are set by the Ministry of Transport and Communications. This scheme ensures that prices are set in transparent, non-discriminatory way, through draft legal acts made available for public consultation in the official Register of Legal Acts of the Republic of Lithuania. Lithuania has reported that over 2016 a public consultation with market players took place and as a result, a consultant was chosen to map the existing NGA infrastructure. The study will be ready in the 1st trimester of 2017. Selection of the most advantageous technologies to meet NGA goals in "white" areas will be carried out once the existing NGA infrastructure has been mapped. As a result, per the model, sustainable investments in NGA infrastructure are ongoing with an estimated cost of around 46 million Euros. The mobile operators plan to replace, at their own cost, current base stations in cities, district centres and areas where mobile communication network masts have been installed with Long Term Evolution technology

If Lithuania is really intending to develop the next generation access infrastructure in white areas, more state investment in fibre networks will be necessary alongside private investment. Moreover, demand-side measures might be necessary to support fixed and mobile broadband take-up and use of internet.

[9] Programme on the Information Society Development for 2014–2020 'Digital Agenda for the Republic of Lithuania' approved by Resolution of the Government of the Republic of Lithuania No 244 of 12 March 2014

[10] https://www.placiajuostis.lt/en/about-us

2 Human Capital

2 Human Capital	Lithuania		Cluster	EU
	rank	score	score	score
DESI 2017	**20**	**0.45**	**0.57**	**0.55**
DESI 2016	20	0.44	0.55	0.53

	Lithuania					EU
	DESI 2017			DESI 2016		DESI 2017
	value		rank	value	rank	value
2a1 Internet Users % individuals	**72%** 2016	↑	**21**	**69%** 2015	**21**	**79%** 2016
2a2 At Least Basic Digital Skills % individuals	**52%** 2016	↑	**17**	**51%** 2015	**16**	**56%** 2016
2b1 ICT Specialists[11] % employed individuals	**2.1%** 2015	↑	**26**	**1.7%** 2014	**26**	**3.5%** 2015
2b2 STEM Graduates Per 1000 individuals (aged 20-29)	**18** 2014	↓	**13**	**21** 2013	**6**	**19** 2014

On Human capital, Lithuania is below the EU average and has kept the same position compared with last year, ranking 20th among EU countries. The share of regular Internet users is also below the EU average but unlike in previous years, 2016 has seen an improvement. Barely half of Lithuanians have basic digital skills. On the positive side, the number of Lithuanians who have never used the Internet has decreased from 24.6% to 21.8%, although this level is still significantly worse than the EU average. As in other EU countries, this figure is higher among seniors and lower educated citizens.[12] The share of ICT specialists as a percentage of employed individuals is the second lowest in the EU. Although it is a positive sign that Lithuania has a relatively high share of STEM graduates, the numbers are significant lower than in the previous year.

A very high number of skilled people are leaving the country to be employed abroad and skills shortages continue to be high and risk becoming an important bottleneck for Lithuania's growth. The Digital Agenda Strategy recognises that addressing this remains crucial to support digital transformation and sets out some important steps to reinforce the investment in human capital, notably boosting the quality of teaching, labour market relevance of education, improving the employability of the low-skilled and promoting adult and work-based learning. The strategy sets an objective to attract more young people to choose ICT and

[11] Historical data have been revised by Eurostat.

[12] European Commission (2017), Digital Scoreboard 2017, European Commission, Brussels

other science studies and professions in order to ensure the acquisition of digital skills when learning other professions.

In order to improve the planning process and policy design in education, a national human resources monitoring framework to observe labour market outcomes for graduates and forecast future skills has been set up. There are also various programmes to support researchers' career development, promote top-performing international researchers, encourage researcher and student mobility, develop skills training and disseminate knowledge about science and technology among students. In addition, the Agency for Science, Innovation and Technology has implemented several new projects for the promotion of innovative startups and spin-offs to encourage the commercialisation of research results and to create opportunities for young researchers to develop their ideas and establish new technological businesses in Lithuania.

The timely implementation of the abovementioned strategy will help increase the digital skills of the general population and close the missing competencies gap in the Lithuanian labour market

3 Use of Internet

3 Use of Internet	Lithuania		Cluster	EU
	rank	score	score	score
DESI 2017	**9**	**0.56**	**0.45**	**0.48**
DESI 2016	10	0.54	0.42	0.45

	Lithuania					EU
	DESI 2017			DESI 2016		DESI 2017
	value		rank	value	rank	value
3a1 News % individuals who used Internet in the last 3 months	**93%** ↓ 2016		**1**	**94%** 2015	**1**	**70%** 2016
3a2 Music, Videos and Games[13] % individuals who used Internet in the last 3 months	**77%** 2016		**18**	**NA**		**78%** 2016
3a3 Video on Demand[14] % individuals who used Internet in the last 3 months	**11%** 2016		**21**	**NA**		**21%** 2016
3b1 Video Calls % individuals who used Internet in the last 3 months	**69%** ↓ 2016		**3**	**71%** 2015	**2**	**39%** 2016
3b2 Social Networks % individuals who used Internet in the last 3 months	**68%** ↑ 2016		**16**	**65%** 2015	**16**	**63%** 2016
3c1 Banking % individuals who used Internet in the last 3 months	**73%** ↑ 2016		**8**	**70%** 2015	**8**	**59%** 2016
3c2 Shopping % internet users (last year)	**44%** → 2016		**23**	**44%** 2015	**24**	**66%** 2016

In terms of the propensity of individuals to use Internet services, Lithuania has made progress and moved up one positon in the ranking. Lithuanian Internet users are the EU leading EU consumers of online news content and in 3rd position for interaction via Video Calls over the internet. They are comparable or above the EU average in exploiting most other Internet services, such as banking, social networks, music, videos and games. However, Lithuanian internet users barely consume any Video on Demand despite an offer of VoD services similar to that of the country ranking first (Denmark).[15] Lithuanians continue to be relatively reluctant to shop online as compared with other Europeans.

[13] Break in series due to a change in the Eurostat survey.

[14] Break in series due to a change of data source. New source is Eurostat.

[15] MAVISE (Database on TV and on-demand audio-visual services and companies in Europe, February 2016

4 Integration of Digital Technology

4 Integration of Digital Technology	Lithuania rank	Lithuania score	Cluster score	EU score
DESI 2017	**8**	**0.44**	**0.40**	**0.37**
DESI 2016	8	0.41	0.37	0.35

	Lithuania DESI 2017 value		Lithuania DESI 2017 rank	Lithuania DESI 2016 value	Lithuania DESI 2016 rank	EU DESI 2017 value
4a1 Electronic Information Sharing % enterprises	**40%** 2015		**9**	**40%** 2015	**9**	**36%** 2015
4a2 RFID % enterprises	**6.4%** 2014		**4**	**6.4%** 2014	**4**	**3.9%** 2014
4a3 Social Media % enterprises	**19%** 2016	↑	**13**	**17%** 2015	**12**	**20%** 2016
4a4 eInvoices % enterprises	**24%** 2016	↑	**8**	**20%** 2015	**5**	**18%** 2016
4a5 Cloud % enterprises	**13%** 2016	↑	**13**	**12%** 2015	**12**	**13%** 2016
4b1 SMEs Selling Online % SMEs	**18%** 2016	→	**10**	**18%** 2015	**10**	**17%** 2016
4b2 eCommerce Turnover % SME turnover	**12.2%** 2016	↑	**6**	**11.0%** 2015	**7**	**9.4%** 2016
4b3 Selling Online Cross-border % SMEs	**9.7%** 2015		**9**	**9.7%** 2015	**9**	**7.5%** 2015

In Integration of Digital Technology by businesses, Lithuania continues to perform well-above the EU average. Lithuanian enterprises have been steadily embracing the opportunities offered by various digital technologies. Even though the progress has been slower than in previous years, there has been overall an increase for most of the indicators. This improvement is most evident in the number of companies using eInvoices, up by 4%. Turnover resulting from SMEs selling online has also improved.

The Digital Agenda recognises the benefits of increased online sales and the adoption of digital technologies by businesses in general and has set ambitious targets. Measures to support digital businesses include the e-Business LT, *e-Verslas LT*, which supports investment in e-business solutions and innovative ICT solutions to enhance a number of business processes. Another important goal of the strategy is to promote the application of ICT in the development of e-business. The strategy aims to increase the share of companies selling online to 45% by 2020. SMEs should roughly double their eCommerce turnover to 20%. On the demand side, by 2020 a minimum 70% of the population should have purchased goods via the Internet.

Successful implementation of the strategy will contribute to improving the digital transformation of the economy by for example, offering SMEs and citizens the access to a much larger market.

5 Digital Public Services

5 Digital Public Services	Lithuania		Cluster	EU
	rank	score	score	score
DESI 2017	**11**	**0.62**	**0.59**	**0.55**
DESI 2016	11	0.58	0.56	0.51

	Lithuania					EU
	DESI 2017			DESI 2016		DESI 2017
	value		rank	value	rank	value
5a1 eGovernment Users	**43%**	↑	**8**	**42%**	**8**	**34%**
% internet users (last year)	2016			2015		2016
5a2 Pre-filled Forms	**69**	↓	**9**	**74**	**8**	**49**
Score (0 to 100)	2016			2015		2016
5a3 Online Service Completion	**92**	↑	**7**	**88**	**11**	**82**
Score (0 to 100)	2016			2015		2016
5a4 Open Data[16]	**40%**	↑	**26**	**24%**	**24**	**59%**
% of maximum score	2016			2015		2016

Lithuania further improved its online public services and kept performing above the EU average in this chapter. The share of businesses and citizens that use e-government services remains solidly above the EU average. Lithuania has further enhanced the availability and sophistication of existing online services and has made continuing progress towards increasing its uptake of eGovernment. The latest EU survey on eGovernment reflects this improvement, placing Lithuania among the accelerator Member States with growth and an absolute score above the EU average (European Commission, 2016i). However, it is still lagging behind in promoting open data and performs below the EU average despite its significant increase compared with last year.

Lithuania is implementing the Programme for the Improvement of Public Administration 2012-2020 with the objective of increasing the availability of e-services provided to the public and enhancing their quality.[17] Besides the priorities and tasks defined in terms of Human Capital, the programme envisages the extensive digitisation of the administrative services through a unique access point and the development of e-services on international level and the promotion of more active participation. Additional tasks to meet the objective include the creation and development of health-related e-services and ICT products and the installation of ICT solutions which increase the openness of public management processes.[18]

Lithuania has effective tools for digital service transformation, such as a catalogue of public services, a register of information systems or standards for project management. However, the country lacks a more strategic vision of how these individual and mostly uncoordinated

[16] Change of data source. The historical data have also been restated. The new source is the European Data Portal.

[17] Support for developing better country knowledge on public administration and institutional capacity building, 2016

[18] eGovernment Factsheets 2016

elements can work together to create a modern, open, responsive and data-driven public sector.[19] In order to further improve the performance, public sector institutions could work more closely with each other and develop more advanced and fully interactive services.

Highlight 2017:[20] Development of the interoperability of state information systems

The State Information Resources Interoperability Platform (SIRIP) is an advanced IT solution that allows service providers to place and create e-services flexibly and easily. SIRIP was launched in 2009, and as of 2015 it was used by 191 government institutions. The system offered 511 e-government services, 130 of which were built on the platform itself.

Small organizational structure state and municipal institutions are now also able to store and track their documents thanks to a new document management solution (DMS) integrated in SIRIP. This is expected to produce an increase in the use of e-documents, boosting electronic government services.

The SIRIP system is particularly useful because it allows the creation of common solutions for the entire public sector, allowing thus other state or municipal institutions in creating their own online services easier, faster and cheaper. The SIRIP solution for identification, which has been used by institutions providing various e-services, has alone saved LTL 4.8 million (About EUR 1.4 million).

[19] OECD, 2015

[20] Highlight 2016: Network of Public Internet Access Points (PIAPs): The project 'Development of Public Internet Access Points' (PIAPs) 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.