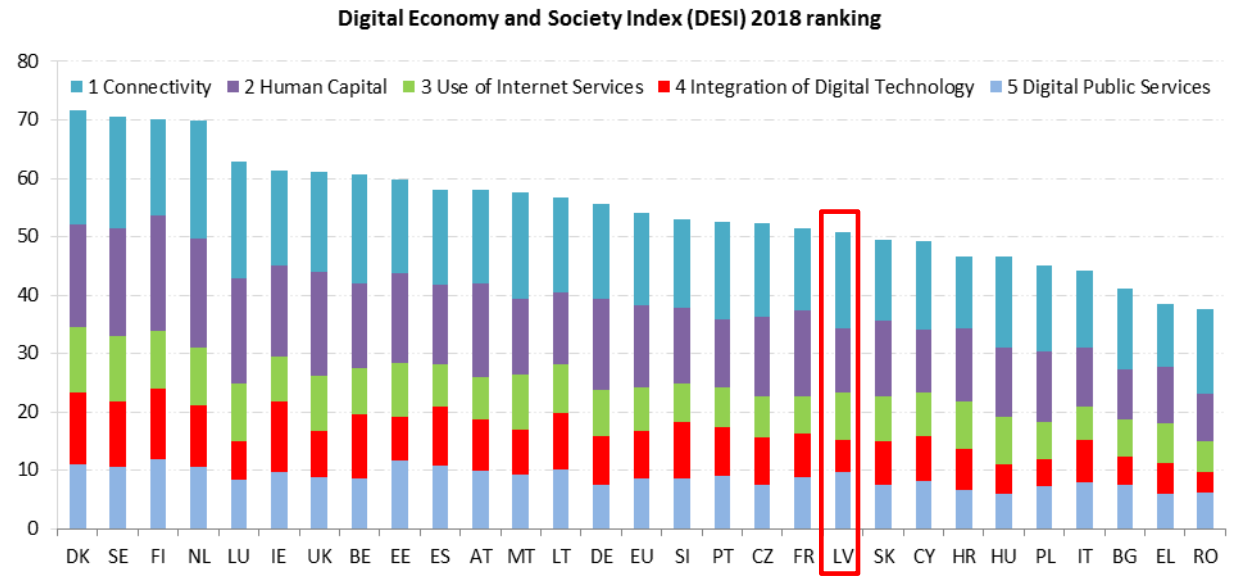
Digital Economy and Society Index (DESI)[1] 2018 Country Report Latvia

The DESI report tracks the progress made by Member States in terms of their digitisation. It is structured around five chapters:

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

The DESI was re-calculated for the previous years 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.



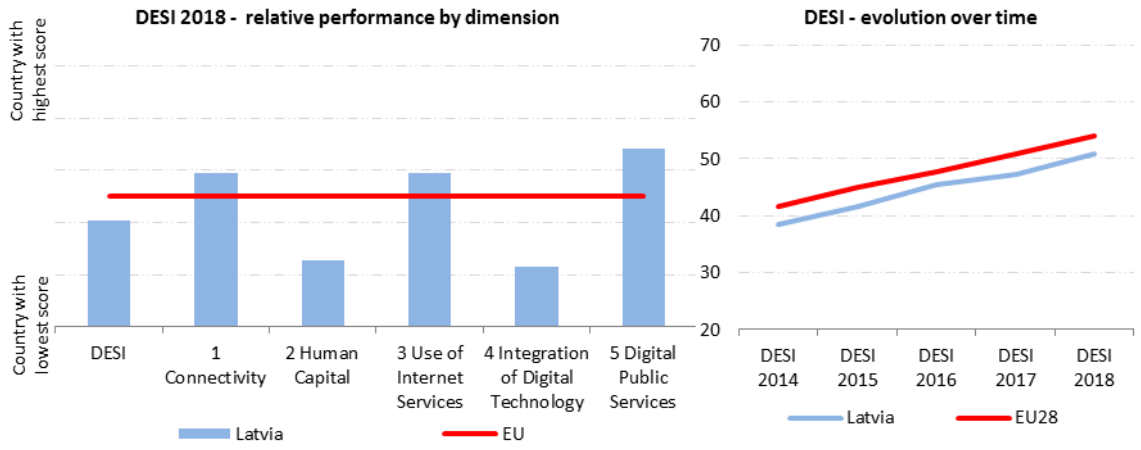
[1] https://ec.europa.eu/digital-single-market/en/desi.

	Latvia		Cluster	EU
	rank	score	score	score
DESI 2018	**19**	**50.8**	**54.7**	**54.0**
DESI 2017	19	47.2	51.5	50.8

Latvia ranks 19th in the DESI 2018, its position has remained unchanged over the last two years. The country has progressed in line with the EU average. Progress has been driven by improvements in connectivity — both coverage and take-up of ultrafast broadband are relatively high — and in digital public services — due to the launch of the national data portal as well as the life events approach being adopted in the provision of public services. More and more Latvians are using internet banking and eGovernment services, but half of the population has no or low digital skills. Improving citizens' digital skills is necessary for Latvia to benefit from an inclusive labour market, as well as for improving the productivity of businesses, which make only limited use of digital.

Latvia belongs to the Medium performing cluster of countries.[2]

In 2013, the Latvian government approved Information Society Development Guidelines for 2014-2020; this is Latvia's current national strategy for digitisation.[3] The Guidelines are built on seven pillars — ICT education and skills; widely available access to the internet; modern and efficient public administration; e-services and digital content for society; cross-border cooperation for the digital single market; ICT research and innovation; trust and security.



[2] Medium-performing countries are Latvia, Czech Republic, Slovenia, France, Portugal, Spain, Lithuania, Malta, Germany and Austria.

[3] http://www.varam.gov.lv/eng/darbibas_veidi/e_gov/?doc=13317.

1 Connectivity

1 Connectivity	Latvia		Cluster	EU
	rank	score	score	score
DESI 2018	**10**	**65.9**	**62.4**	**62.6**
DESI 2017	12	61.7	58.8	58.5

	Latvia				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
1a1 Fixed Broadband Coverage →	**93 %**	**24**	**93 %**	**24**	**97 %**
% households	2017		2016		2017
1a2 Fixed Broadband Take-up ↑	**64 %**	**24**	**61 %**	**24**	**75 %**
% households	2017		2016		2017
1b1 4G Coverage ↑	**98 %**	**8**	**91 %**	**15**	**91 %**
% households (average of operators)	2017		2016		2017
1b2 Mobile Broadband Take-up ↑	**91**	**12**	**78**	**16**	**90**
Subscriptions per 100 people	2017		2016		2017
1c1 Fast Broadband (NGA) Coverage →	**91 %**	**8**	**91 %**	**8**	**80 %**
% households covered by VDSL, FTTP or Docsis 3.0	2017		2016		2017
1c2 Fast Broadband Take-up ↑	**42 %**	**14**	**38 %**	**12**	**33 %**
% homes subscribing to >= 30Mbps	2017		2016		2017
1d1 Ultrafast Broadband Coverage	**88 %**	**5**	**NA**		**58 %**
% households covered by FTTP or Docsis 3.0	2017				2017
1d2 Ultrafast Broadband Take-up ↑	**35.0 %**	**5**	**29.5 %**	**5**	**15.4 %**
% homes subscribing to >= 100Mbps	2017		2016		2017
1e1 Broadband Price Index ↑	**87**	**14**	**86**	**14**	**87**
Score (0 to 100)	2017		2016		2017

In 2017, Latvia made good progress in the connectivity dimension at a pace similar to the EU average. The country is stagnating as regards fixed broadband coverage of households, still lagging behind the EU average (ranked 24th, with 93 % household coverage). Remarkably, almost all coverage is NGA (91 % of households covered), and a large part is even ultrafast broadband (88 % of households covered), where Latvia stands among the leading Member States, far above the EU average. 4G coverage in Latvia is also very high (98 % of households). Take-up of fast and ultrafast broadband are also well above the EU average: 42 % and 35 % of homes subscribe to fast and ultrafast broadband respectively, as opposed to 33 % and 15.4 % on average in the EU. However, overall fixed broadband take-up in Latvia remains below the EU average, despite a small increase in 2017. This is to some extent compensated by a much more rapid increase in mobile broadband, thanks to data bundles being widely available at affordable prices.

The ‘middle mile project’,[4] launched in 2012 and co-financed by EU structural funds to connect rural areas to the national backbone infrastructure, has entered its second phase. The actual construction work of the second phase is planned to start in spring 2018. It will focus on the remaining 221 white areas identified in 2014-2015. It is envisaged that, by 2020, 2 800 km of optical cable and 220 optical network access points will be built. Telecoms operators will then have the opportunity to create a local loop with a data transmission speed of at least 30 Mbits/sec (the ‘last mile’), using the new network to offer retail services to end users. However, it seems that there is no private investment in the last mile in some places. Further efforts are necessary to assess the situation and propose solutions to close the last mile gap where needed, including further state aid schemes and regulatory measures. Mobile operators’ delivery of fixed services to homes using mobile technology contributes to closing the gap in some rural areas where there is no investment in the last mile.

Latvia has been among the EU front-runners in terms of fibre and 4G deployment. However, bridging the digital divide remains a real challenge for the country; the recent rules transposing the Broadband Cost Reduction Directive may help the situation. In addition, in order to keep up with the fast pace of connectivity developments, market players need appropriate spectrum blocks to be available to them for early 5G trials and deployment.

[4] Project *‘State aid SA.33324 — Latvia Next generation network for rural areas’ (C (2011)7699),* also known as the SAP project. During the first phase of this project (2012-2015), 1418 km of cable ducts and 1813 km of optical cable were laid and 177 access points were built in white areas.

2 Human Capital

2 Human Capital	Latvia		Cluster	EU
	rank	score	score	score
DESI 2018	**23**	**43.8**	**58.6**	**56.5**
DESI 2017	22	44.1	56.5	54.6

	Latvia				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
2a1 Internet Users	**78 %** ↑	**18**	**77 %**	**16**	**81 %**
% individuals	2017		2016		2017
2a2 At Least Basic Digital Skills	**48 %** ↓	**22**	**50 %**	**19**	**57 %**
% individuals	2017		2016		2017
2b1 ICT Specialists	**2.2 %** →	**25**	**2.2 %**	**24**	**3.7 %**
% individuals	2016		2015		2016
2b2 STEM Graduates[5]	**12.7** ↓	**26**	**13.1**	**26**	**19.1**
Per 1000 individuals (aged 20-29)	2016		2014		2015

In the Human Capital area, Latvia performs below the EU average, having made no progress in the last year. Although the percentage of internet users in the population is almost in line with the EU average, 52 % of Latvian citizens do not have the basic digital skills needed to function effectively online, with 19 % having no digital skills at all (2 points higher than the EU average).

In Latvia, women's digital skills are slightly higher than those of men. While 50 % of women have at least basic digital skills, for men this figure is only 46 %. Differences in digital skills also exist between employed and unemployed people. While 57 % of employed people have basic digital skills or more, for the unemployed this figure is only 33 %. The education level is also an important determining factor for digital skills. While 76 % of highly educated people have at least basic digital skills (against 84 % at EU level), for those with only low or medium levels of education this figure is only 35 %. If for low educated people the figure is 5 % above the EU average, for medium educated people it implies a distance of 20 points from the EU average. The number of ICT specialists is stable but well below the EU average. The proportion of STEM graduations has been decreasing in recent years (from 14.1 per 1000 in 2013 to 12.7 in 2016).

The Education Development Guidelines for 2014-2020 include actions that address the use of ICT for learning and developing digital skills. The 'ICT Education and E-skills' pillar of the Information Society Development Guidelines for 2014-2020 envisages education actions on: public awareness and readiness to use e-opportunities; development of inhabitant and entrepreneur e-skills; increasing ICT competences in public administration; preparing ICT

[5] The most recent data was used in DESI 2018. It may refer to 2016 or 2015 depending on the Member State. This is reflected in the 2018 DESI ranking. Historical data has been updated by Eurostat.

practitioners and professionals based on labour market requirements; increasing the proportion of algorithmic thinking and information literacy in educational programmes. These actions would be supported by state funding, as well as EU financial support.

Moreover, Latvia has a National Coalition' for digital skills and jobs that involves several ministries, ICT industry associations and companies, as well as the Chamber of Commerce and Industry of Latvia. The coalition is coordinated by the Latvian Information and Communications Technology Association (LIKTA). Its work is based on the priorities defined in the documents mentioned above, and aims to provide ICT training tailored to labour market needs, involve more youth in ICT, develop modern and interactive learning processes, and raise awareness of the importance of digital literacy and ICT skills.

A number of steps have been taken towards implementing these strategies over the past year. They include the 'SMEs trainings for digital technologies and innovations in Latvia' and 'ICT professional trainings for ICT industry development and innovations' projects. These projects aim to support young peoples' employability and personal development by equipping them with the right ICT skills for future digital jobs. The goal is to provide high quality digital skills courses to 7 000 SME employees and 1 500 ICT professionals over the 2017-2020 period. At the end of October 2017, over 400 companies were already involved in the first project and more than 900 training courses had been provided (out of the 7000 envisioned). By this time, 55 ICT companies had joined the second project and 780 ICT professionals had updated their skills and qualifications thanks to 196 high-level specialised ICT training courses.

Although promising measures have been undertaken in this area, their effects may take some time to materialise. Latvia still has some way to go in order to improve the digital skills of its citizens and labour force in preparation for the digital transformation of its economy and population.

3 Use of Internet Services

3 Use of Internet Services	Latvia		Cluster	EU
	rank	score	score	score
DESI 2018	**10**	**54.8**	**48.3**	**50.5**
DESI 2017	10	54.5	45.0	47.5

	Latvia				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
3a1 News % individuals who used Internet in the last 3 months	**84 %** → 2017	**11**	**84 %** 2016	**10**	**72 %** 2017
3a2 Music, Videos and Games % individuals who used Internet in the last 3 months	**77 %** 2016	**19**	**77 %** 2016	**19**	**78 %** 2016
3a3 Video on Demand % individuals who used Internet in the last 3 months	**15 %** 2016	**15**	**15 %** 2016	**15**	**21 %** 2016
3b1 Video Calls % individuals who used Internet in the last 3 months	**51 %** → 2017	**14**	**51 %** 2016	**9**	**46 %** 2017
3b2 Social Networks % individuals who used Internet in the last 3 months	**74 %** ↑ 2017	**10**	**71 %** 2016	**11**	**65 %** 2017
3c1 Banking % individuals who used Internet in the last 3 months	**75 %** ↓ 2017	**8**	**78 %** 2016	**6**	**61 %** 2017
3c2 Shopping % individuals who used Internet in the last 12 months	**55 %** → 2017	**19**	**55 %** 2016	**17**	**68 %** 2017

Latvians' use of internet services continues to be above the EU average. Latvians are in particular above-average users of internet banking (75 %, ranking 8th in the EU). However, other internet services are also popular, including reading the news (84 %), watching or listening to music, watching videos and playing games (77 %) and using social networks (74 %). Online shopping, on the other hand, is less popular: only slightly more than half (55 %) of people who used the internet in the last year declared that they had shopped online in 2017 (against 68 % at EU level).

4 Integration of Digital Technology

4 Integration of Digital Technology	Latvia		Cluster	EU
	rank	score	score	score
DESI 2018	**23**	**27.0**	**42.1**	**40.1**
DESI 2017	25	22.7	38.5	36.7

	Latvia					EU
	DESI 2018			DESI 2017		DESI 2018
	value		rank	value	rank	value
4a1 Electronic Information Sharing % enterprises	**25 %** 2017	↑	**24**	**16 %** 2015	**28**	**34 %** 2017
4a2 RFID % enterprises	**2.8 %** 2017	→	**22**	**2.8 %** 2014	**21**	**4.2 %** 2017
4a3 Social Media % enterprises	**13 %** 2017	↑	**25**	**11 %** 2016	**25**	**21 %** 2017
4a4 eInvoices % enterprises	**17.0 %** 2017	↓	**18**	**18.9 %** 2016	**10**	**NA** 2017
4a5 Cloud % enterprises	**9.4 %** 2017	↑	**24**	**5.8 %** 2016	**24**	**NA** 2017
4b1 SMEs Selling Online % SMEs	**10.6 %** 2017	↑	**23**	**8.1 %** 2016	**25**	**17.2 %** 2017
4b2 E-commerce Turnover % SME turnover	**8.6 %** 2017	↑	**19**	**8.2 %** 2016	**17**	**10.3 %** 2017
4b3 Selling Online Cross-border % SMEs	**4.7 %** 2017	↑	**25**	**3.9 %** 2015	**24**	**8.4 %** 2017

In the last year, Latvia has made good progress on Integration of Digital Technology by businesses, improving its rank from 25th in 2017 to 23rd. However, it still lags behind most of the EU in this area. Improvements have been driven by the proportion of enterprises purchasing cloud computing services, which has almost doubled in the last year (now at 9.4 %), and by the percentage of enterprises adopting electronic information sharing. The percentage of SMEs that make use of electronic sales channels has also increased by 2.5 percentage points to 10.6 %, reducing the gap with the EU average (17 %). The percentage of SME turnover coming from e-commerce has also increased somewhat (up 0.5 pp. to 8.6 %). Nevertheless, there is still room for further improvements as there are relatively few enterprises selling online across borders (4.7 %). High delivery costs are a major barrier encountered by firms wanting to sell online to customers in other EU countries.

Latvia does not have an overarching strategy in place for the digitisation of businesses. Nevertheless, there are several initiatives that address the development of Industry 4.0, including: a pilot project in the engineering sector promoting awareness of Industry 4.0; participation in the Interreg DIGINNO project about speeding up industry digitisation in the Baltic Sea region; participation in the Interreg SKILLS+ project that aims to advance public policies promoting ICT skills among SMEs in rural areas.

Support for innovation vouchers is also envisaged, within the framework of the Technology Transfer Programme. Innovation vouchers would support SMEs' innovation activities by providing support for outsourcing R&D.

The adoption of an overarching strategy may contribute to improving the economy's digital transformation by, for example, giving SMEs and citizens access to a much larger market.

Highlight 2018: Latvian IT Cluster

The Latvian IT Cluster (http://www.itbaltic.com/en/home/) is a non-governmental organisation that initiates and leads cooperation between the Latvian IT industry and educational and public sector institutions. Its main priority is to seek out new cooperation and development opportunities for member companies and institutions. The cluster includes over 30 top IT companies and a number of partner universities, research institutions and other scientific bodies. In the last 10 years, it has provided a national collaboration platform for the development of innovative IT solutions and products, for example in the health and welfare sectors.

5 Digital Public Services

5 Digital Public Services	Latvia		Cluster	EU
	rank	score	score	score
DESI 2018	**9**	**65.2**	**58.5**	**57.5**
DESI 2017	14	53.7	54.9	53.7

	Latvia				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
5a1 eGovernment Users[6] % internet users needing to submit forms	**77 %** ↑ 2017	**10**	**69 %** 2016	**10**	**58 %** 2017
5a2 Pre-filled Forms Score (0 to 100)	**71** ↑ 2017	**11**	**58** 2016	**12**	**53** 2017
5a3 Online Service Completion Score (0 to 100)	**90** ↓ 2017	**10**	**91** 2016	**8**	**84** 2017
5a4 Digital Public Services for Businesses Score (0 to 100) — including domestic and cross-border	**93** → 2017	**6**	**93** 2016	**6**	**83** 2017
5a5 Open Data % of maximum score	**68 %** ↑ 2017	**18**	**15 %** 2016	**28**	**73 %** 2017
5b1 eHealth Services % individuals	**14 %** 2017	**17**	**NA**		**18 %**

In the Digital Public Services, Latvia has made a substantial improvement in its score (+13 pp.) and its rank (from 14th to 9th in the EU) in the last year. This progress has been driven by improvements in eGovernment use (+8 pp.), the availability of pre-filled forms (+13 pp.) and, in particular, the availability of Open Data (+53 pp.). The latter has been influenced by the opening of the national data portal,[7] which makes it possible to access public administration data sets and metadata directly and to link to other data sets published in other public administration portals. This has substantially improved Latvia's performance in the Open Data area compared to the previous year; the country now ranks 18th in the EU.

Latvia's eGovernment policy is mainly set out in the Information Society Development Guidelines for 2014-2020,[8] where special attention is devoted to implementing open data principles in the public administration and simplifying the delivery of public services, by means of efficient and effective eServices and interoperable information systems. The 'E-Services and Digital Content for Public' pillar includes: making public administration data and transaction services openly available to other users; shared platforms and service

[6] The new indicator measures eGovernment users as a percentage of those internet users needing to submit forms to the public administration.

[7] https://data.gov.lv/.

[8] http://www.varam.gov.lv/eng/darbibas_veidi/e_gov/?doc=13317.

development for the provision of public services; adopt official email address to allow inhabitants and entrepreneurs to communicate with the services; digitalisation of public services; automated issue and acceptance of electronic invoices; digitisation and accessibility of cultural heritage; stimulation of Latvian language use online; e-health solutions for efficient, safe and patient-oriented health care. Activities undertaken under the 'Advanced and Effective Public administration' pillar include: the modernisation of basic public administration activities; public e-participation and e-democracy; development of a single public administration data space and optimisation of ICT infrastructure.

In February 2018, the Cabinet of Ministers adopted 'The informative statement on the use of Cloud Computing services in public administration',[9] drawing attention to the potential of cloud computing services (CCS) to increase the effectiveness of public administration. The Statement proposes a series of actions that aim to prepare for the efficient use of CCS in public administration, including proposals for centralising certain CCS management functions.

By reducing the administrative burden, it is expected that Latvia will create a more favourable business environment and increase the number of entrepreneurs (especially SMEs), who until now have been deterred from starting a businesses or officially registering it due to the complexity and unwieldiness of bureaucratic procedures.

[9] (http://tap.mk.gov.lv/lv/mk/tap/?pid=40441825&mode=mk&date=2018-02-20).