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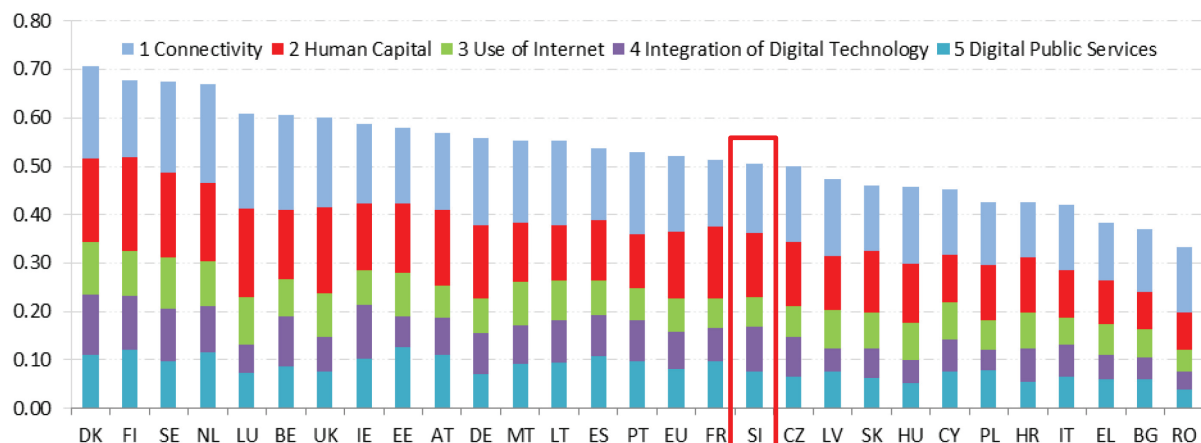
Europe's Digital Progress Report 2017

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

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

Digital Economy and Society Index (DESI) 2017 ranking



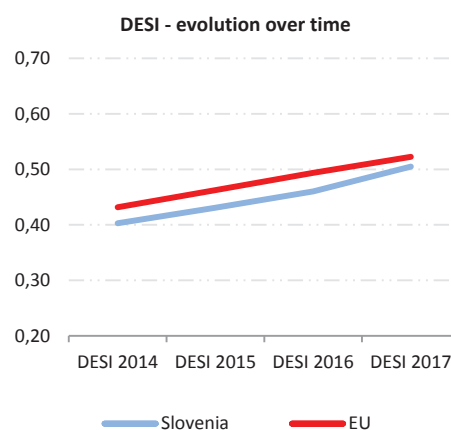
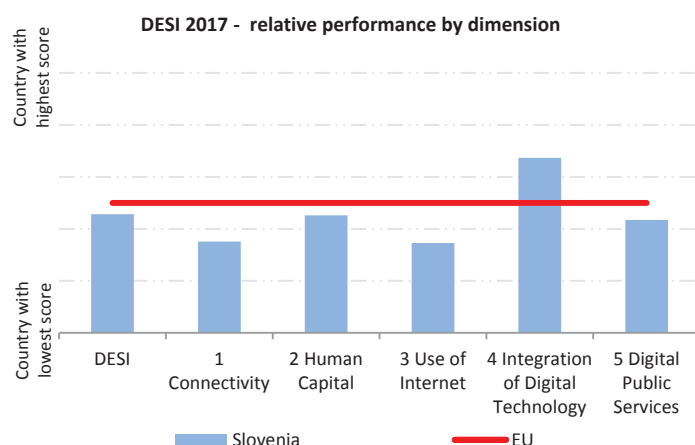
¹ <https://ec.europa.eu/digital-single-market/en/desi>

	Slovenia		Cluster	EU
	rank	score	score	score
DESI 2017	17	0.51	0.54	0.52
DESI 2016 ²	18	0.46	0.51	0.49

Slovenia ranks 17th in DESI 2017. Slovenia made significant progress in the integration of digital technologies by enterprises, where it now ranks above EU average. Digital skill levels have improved and Slovenians do engage in a variety of online activities. However, Connectivity remains below EU average, driven by the slow take-up of fast and mobile broadband. The delivery of online public services progresses thanks to efforts in open data; but there only 22% of connected citizens are eGovernment users and Slovenia ranks 22nd amongst the Member States.

Slovenia belongs to the Medium performing cluster of countries³.

In March 2016 Slovenia had adopted its Digital Agenda Slovenia 2020⁴.



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

⁴ DIGITALNA SLOVENIJA 2020 Strategija razvoja informacijske družbe do leta 2020 http://www.mju.gov.si/si/delovna_podrocja/informacijska_druzba/digitalna_slovenija_2020/

1 Connectivity

1 Connectivity	Slovenia		Cluster	EU
	rank	score	score	score
DESI 2017	19	0.58	0.63	0.63
DESI 2016	18	0.55	0.60	0.59

	Slovenia				EU	
	DESI 2017 value	rank	DESI 2016 value	rank	DESI 2017 value	
1a1 Fixed Broadband Coverage % households	98% 2016	↑ 17	95% 2015	20	98% 2016	
1a2 Fixed Broadband Take-up % households	77% 2016	↑ 9	75% 2015	10	74% 2016	
1b1 Mobile Broadband Take-up Subscriptions per 100 people	57 June 2016	↑ 25	48 June 2015	26	84 June 2016	
1b2 4G coverage⁵ % households (average of operators)	94% 2016	11	NA		84% 2016	
1b3 Spectrum⁶ % of the target	57% 2016	↓ 23	60% 2015	22	68% 2016	
1c1 NGA Coverage % households	82% 2016	↑ 14	81% 2015	13	76% 2016	
1c2 Subscriptions to Fast Broadband % subscriptions >= 30Mbps	24% June 2016	↑ 22	13% June 2015	24	37% June 2016	
1d1 Fixed Broadband Price⁷ % income	2.5% price 2016, income 2015	↓ 26	1.7% price 2015, income 2015	20	1.2% price 2016, income 2015	

While overall performance is still below the EU average, Slovenia made some progress over 2016 in terms of connectivity. Slovenia made good progress on fixed broadband coverage, now in line with the EU average, at 98%. In terms of NGA coverage Slovenia continues to perform significantly better than the EU average (82% vs 76%). 4G coverage is significantly higher than the EU average (94% vs 84%). However, Slovenia is still well below EU average as regards the take-up of mobile broadband (57% of subscribers against 84% EU average); and of fixed fast broadband above 30 Mbps (24% against 37% EU average).

Different aspects can be seen as factors which contribute to the low take-up, including low internet use, and relatively high prices for (fast) broadband. In terms of fast internet use, Slovenia has among the highest price for standalone fixed broadband.

In March 2016, Slovenia adopted a new National Broadband Plan. It sets new coverage targets to be achieved by 2020, with a planned 96% of households to be connected with

⁵ This is a new DESI indicator measuring the average coverage of telecom operators' 4G networks.

⁶ There is a decrease in most of the Member States due to the additional EU harmonisation of the 700 MHz band in April 2016.

⁷ Due to a slight methodological change, historical data was re-calculated.

broadband speeds of at least 100 Mb/s and the remaining 4% of households connected with speeds of at least 30 Mb/s. Slovenia will test market interest to provide access to broadband speeds of at least 100 Mb/s and should then establish a list of planned investments along with a description of the prioritisation of investments in areas affected by market failure. According to the National Broadband Plan, 355 million EUR should be invested to reach the broadband targets that the plan sets. The plan foresees public funding, mostly European, amounting to € 72,5 Million, and private funding of € 292,5 Million.

Slovenia still has to fully transpose the Cost Reduction Directive, which could help to speed up broadband roll-out. On 24 November 2016 Slovenia launched the Digital Coalition, which features representatives of business, the civil society, R&D and government services. Together they will discuss future development, digitalisation, and new technologies in line with the country's smart specialisation strategy until 2020 that was adopted in March. The strategy sets the key strategic development guidelines and is complemented by the cyber security strategy and the plan for the development of networks of the next generation by 2020.

Moreover, the outstanding full transposition of the Cost Reduction Directive is expected to further facilitate the broadband roll-out. On the demand side, measures to stimulate the take-up of mobile broadband and fast broadband subscriptions could be taken. In particular, increasing affordability by stimulating price competition in the market could allow Slovenian citizens to fully enjoy the benefits of the digital economy.

2 Human Capital

2 Human Capital	Slovenia		Cluster	EU
	rank	score	score	score
DESI 2017	14	0.52	0.57	0.55
DESI 2016	15	0.50	0.55	0.53

	Slovenia				EU
	DESI 2017		DESI 2016		DESI 2017
	value	rank	value	rank	value
2a1 Internet Users % individuals	73% 2016	↑ 20	71% 2015	19	79% 2016
2a2 At Least Basic Digital Skills % individuals	53% 2016	↑ 16	51% 2015	18	56% 2016
2b1 ICT Specialists⁸ % employed individuals	3.6% 2015	↑ 13	3.5% 2014	12	3.5% 2015
2b2 STEM Graduates Per 1000 individuals (aged 20-29)	19 2014	→ 9	19 2013	9	19 2014

In the Human Capital dimension, Slovenia is performing well and making good progress. Slovenia still has a relatively low percentage of regular Internet users (73%, below the EU average of 79%). However, 64% of the 14 -74 year old cohorts use the internet daily⁹ and 53% of Slovenians reported having at least basic digital skills (56% EU average). Slovenia has a good position regarding the share of ICT specialists (3,6 %) in the workforce, just above the EU average of 3,5%. However, companies still can't find enough skilled labour.¹⁰ Slovenia continues to have a high share of STEM graduates, and ranks 9th.

Younger generations benefit from the inclusion of digital content and digital skills in formal education curricula from elementary school to university level. Several stakeholder and publicly financed bottom-up initiatives for lifelong learning of ICT skills complement the formal education process. Mechanisms for increased access to ICT include the establishment of the so-called "Bottom up" initiatives, such as the already established initiatives "Opening Up Slovenia" or the forum for political debate on matters within the scope of the Internet called the "Slovenian Internet Forum" (SIF) based on an open and inclusive dialogue between all stakeholders. In the context of the implementation of the European Cohesion Policy (2014 - 2020), Slovenia aims at enhancing equal access to lifelong learning, improving competencies, increasing employability and mobility, personal development and activities in modern society. In this context Slovenia is for example building-up competency centres for human resources for improving competences of staff with an emphasis on the digital transformation and jobs.

⁸ Historical data have been revised by Eurostat.

⁹⁹ <http://www.stat.si/StatWeb/pregled-podrocja?idp=2989&headerbar=8>

¹⁰ <http://www.delo.si/gospodarstvo/kariera/ze-vsako-tretje-podjetje-ne-dobi-ustreznih-delavcev.html>

In November 2016 the Slovenian Digital Coalition was launched,¹¹ signed by stakeholders from the business, research and public sector. Increasing digital competences and e-skills are key objectives. The development of digital skills and digital awareness are two cornerstones of Slovenia's Digital Strategy. Teaching digital skills is anchored in the existing formal education process. Lower levels of ICT skills and digital literacy among certain parts of the population - the older generation, people living in rural areas, less skilled workers - limit the use of internet, including for example e-government services.

The Digital Coalition addresses key issues to foster digital transformation in Slovenia, including digital awareness, literacy and skilled labour force.

¹¹ <http://www.digitalna.si/digitalna-koalicija.html>

3 Use of Internet

3 Use of Internet	Slovenia		Cluster	EU
	rank	score	score	score
DESI 2017	23	0.41	0.45	0.48
DESI 2016	24	0.39	0.42	0.45

	Slovenia				EU
	DESI 2017		DESI 2016		DESI 2017
	value	rank	value	rank	value
3a1 News % individuals who used Internet in the last 3 months	80% ↑	11	77%	15	70%
	2016		2015		2016
3a2 Music, Videos and Games¹² % individuals who used Internet in the last 3 months	78%	16	NA		78%
	2016				2016
3a3 Video on Demand¹³ % individuals who used Internet in the last 3 months	18%	12	NA		21%
	2016				2016
3b1 Video Calls % individuals who used Internet in the last 3 months	42% ↑	18	36%	20	39%
	2016		2015		2016
3b2 Social Networks % individuals who used Internet in the last 3 months	51% →	27	51%	26	63%
	2016		2015		2016
3c1 Banking % individuals who used Internet in the last 3 months	47% ↑	21	46%	21	59%
	2016		2015		2016
3c2 Shopping % internet users (last year)	53% ↑	19	52%	18	66%
	2016		2015		2016

In terms of the propensity of individuals to use Internet services, Slovenia made little progress over the last year and moved up from rank 24 to rank 23. Slovenian Internet users read news online (80%) and listen to music, watch videos and play games online (78%). Slovenians are watching fewer films on demand (18%) compared with the EU average of 21%. There has been an increase in Video Calls over the Internet (42%). There is only minor growth in the use of social networks (56%), use of online banking (59%) and online shopping (53%). Slovenia is performing below EU average in all three dimensions.

¹² Break in series due to a change in the Eurostat survey.

¹³ Break in series due to a change of data source. New source is Eurostat.

4 Integration of Digital Technology

4 Integration of Digital Technology	Slovenia		Cluster	EU
	rank	score	score	score
DESI 2017	7	0.46	0.40	0.37
DESI 2016	13	0.36	0.37	0.35

	Slovenia				EU
	DESI 2017		DESI 2016		DESI 2017
	value	rank	value	rank	value
4a1 Electronic Information Sharing % enterprises	33%	16	33%	16	36%
	2015		2015		2015
4a2 RFID % enterprises	4.9%	9	4.9%	9	3.9%
	2014		2014		2014
4a3 Social Media % enterprises	17% ↑	16	16%	13	20%
	2016		2015		2016
4a4 eInvoices % enterprises	57% ↑	3	16%	7	18%
	2016		2015		2016
4a5 Cloud % enterprises	15% ↑	10	11%	13	13%
	2016		2015		2016
4b1 SMEs Selling Online % SMEs	13% ↓	18	15%	15	17%
	2016		2015		2016
4b2 eCommerce Turnover % SME turnover	NA		8.4%	12	9.4%
	2016		2015		2016
4b3 Selling Online Cross-border % SMEs	10.5%	5	10.5%	5	7.5%
	2015		2015		2015

Slovenian enterprises have considerably stepped up their digitisation efforts.

Slovenia ranks 3rd in the use of eInvoices due to a generalised roll-out of eInvoice transactions by the public sector; the business sector now needs to use eInvoices in transactions with the public sector. In 2015 16% of companies were using eInvoices, compared with 57% in 2016. Slovenia ranks 9th in the use of RFID.

SMEs seem to be on right track towards integrating digital solutions rapidly into their production processes, business models and distribution channels, as selling online enables them to reach out to cross-border markets.

Strengthening and accelerating the digitisation of industry is a priority for Slovenia's Digital Strategy and the Digital coalition. This being said, Slovenia has no specific policies aimed at stimulating the digitisation of business in general or eCommerce in particular and has not introduced any specific and targeted fiscal breaks for investment in digital. However awareness of the need to integrate digital technologies into business processes is rising; and an increasing number of companies have appointed a Chief Information Officer¹⁴.

¹⁴ <http://cio.si/>

While in many sectors of the economy, awareness of digital technologies is rising, the degree of their actual integration differs considerably across the different sectors of the economy, with a higher degree of digitisation in services rather than manufacturing¹⁵.

Highlight 2017: roll-out of eInvoices¹⁶

In Slovenia eInvoices became mandatory in all transactions with the public administration in January 2015. According to data provided by the Slovenian Public Payment Administration,¹⁷ 4 million eInvoices were received and 500.000 eInvoices were issued in transactions involving the public administration during 2016.

As the average unit cost for a paper invoice (paper, envelope, postage) is 0,47 EUR, the total savings of the public sector were estimated to exceed 2 million EUR in 2016. This does not take into account additional savings caused by printing, processing, filing and archiving.

Through the spill-over effect of the use of eInvoices by firms, there are additional savings in the business sector.

¹⁵ <http://www.stat.si/StatWeb/News/Index/6373>

¹⁶ Highlight 2016: ePrescriptions. Slovenia rolled out e-Prescription and e-Referrals in October 2015. By December 2015 all general practitioners in Slovenia were using e-Prescriptions, taking the country from 0% to 100% usage in just a few weeks. The Slovenian preference for big-bang changeovers compensates for delays that accumulate during the long process of consensus-building, decision-making, planning culminating with lengthy procurement procedures.

¹⁷ <http://www.ujp.gov.si/dokumenti/dokument.asp?id=295>

5 Digital Public Services

5 Digital Public Services	Slovenia		Cluster	EU
	rank	score	score	score
DESI 2017	16	0.51	0.59	0.55
DESI 2016	19	0.45	0.56	0.51

	Slovenia				EU
	DESI 2017 value	rank	DESI 2016 value	rank	DESI 2017 value
5a1 eGovernment Users % internet users (last year)	22% ↓	22	24%	19	34%
	2016		2015		2016
5a2 Pre-filled Forms Score (0 to 100)	43 →	16	43	15	49
	2016		2015		2016
5a3 Online Service Completion Score (0 to 100)	84 →	14	84	16	82
	2016		2015		2016
5a4 Open Data ¹⁸ % of maximum score	60% ↑	12	34%	22	59%
	2016		2015		2016

Slovenia has considerably improved its performance in this dimension due to a considerable increase of re-use of public sector data (from 34% to 60%). The re-use of Open Data increased considerably after the adoption of national legislative measures implementing the Directive on the re-use of public sector information (Directive 2003/98/EC).

At 22% the take-up of eGovernment remains low compared with the EU average. Even though the number of eGovernment users increased in nominal terms, the share of eGovernment users as a share of internet users decreased. This decrease occurred even though several new e-public service features were made available in 2016. The delivery of online public services has not therefore progressed.

In 2016 Slovenia adopted several measures in the field of eGovernment. At institutional level, the coordination between different governmental departments has been improved. The Ministry for Administration (MPA) has taken a clear lead in coordinating digital public services in Slovenia. The Directorate for information society has been transferred to the MPA, bringing departments responsible for telecom regulation, e-Government, access to public sector data and e-IDAS regulation implementation under one ministry.

In 2016 Slovenia completed its private eGovernment cloud in 2016. There is a clear timeline for deliverables concerning the hybrid eGovernment cloud and an eGovernment cloud for innovation in 2017. Once operative the three eGovernment clouds will serve as a central interoperable repository of data, which will lead to savings in IT resources.

¹⁸ Change of data source. The historical data have also been restated. The new source is the European Data Portal.

Slovenia supports the goals set by the EU's e-Government Action Plan and its principles. By centralising procurement of IT equipment and services and issuing of guidelines on editing standards at MPA, Slovenia is increasing interoperability of various e-Public services.

The central portal eUprava (launched in November 2015) allows citizens to have access to their personal data in public registries and evidences. They can access data of the central registry of residents, land property, car registration, etc. The One Stop Shop Business Portal e-VEM launched on 1st January 2016, allowing business to manage social security issues on line. According to Slovenian authorities some 900.000 electronic transactions were executed online instead of on paper in 2016. At the end of 2016, the new national Open Data Portal (OPSI) was introduced.

The Digital Slovenia 2020 Strategy foresees the roll out of e-government services by 2020 at all levels of government. The strategy introduces the "Digital by default" and "Once only" principles and encompasses the development of various key enablers for access and interoperability of eGovernment services, such as eIdentity, eAuthentication, eSignature and eDelivery.

Slovenia has in place a comprehensive digital portal in the area of taxes (eDavki)¹⁹, for both citizens and companies, as well a system of ePrescriptions, covering close to 100% of all practitioners. Finally several features of health insurance system are supported by digital solutions through the zVem portal.

Interoperability and the new features of ePublic services foreseen in the Digital Agenda will contribute to the take-up of digital public services in the future across different areas of public service provision.

¹⁹ <https://edavki.durs.si/OpenPortal/Pages/StartPage/StartPage.aspx>