

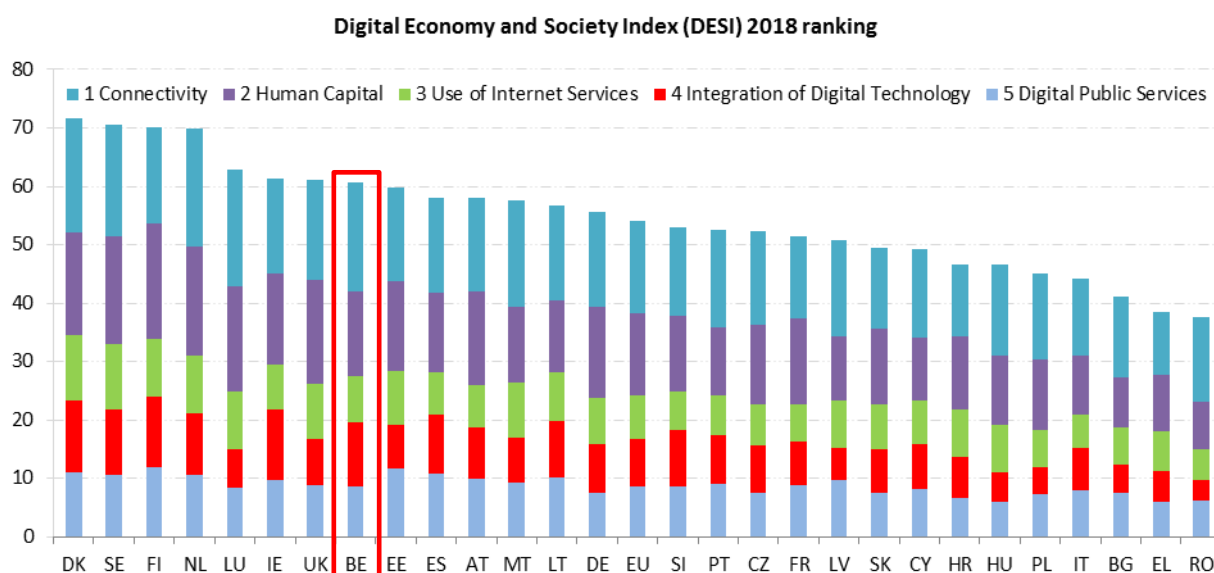
Digital Economy and Society Index (DESI)¹ 2018

Country Report Belgium

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>.



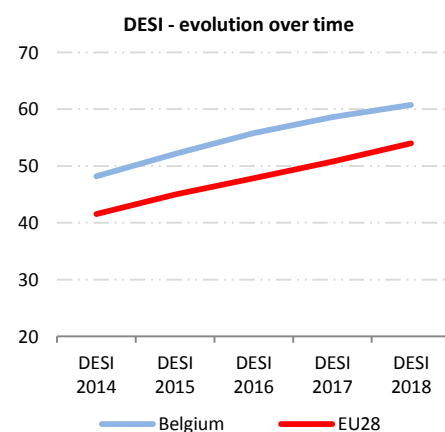
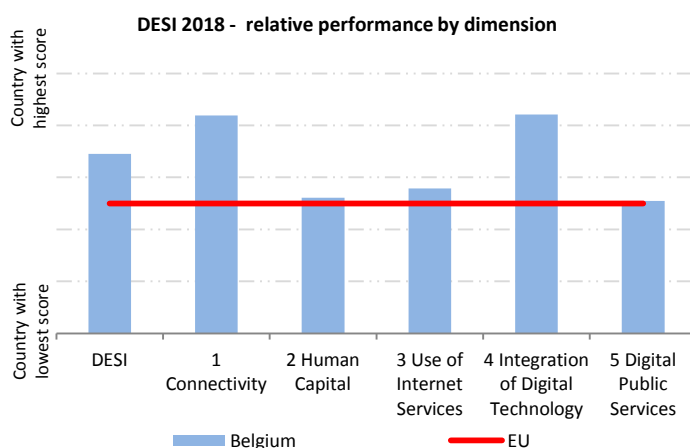
¹ <https://ec.europa.eu/digital-single-market/en/desi>

	Belgium		Cluster	EU
	rank	score	score	score
DESI 2018	8	60.7	64.0	54.0
DESI 2017	6	58.6	61.2	50.8

Belgium ranks 8th out of the 28 EU Member States in DESI 2018. While its absolute performance improved in all DESI domains, its ranking slightly slipped compared with 2017, also due to the good performance of other countries in its peer group. Residents of Belgium are well connected: broadband coverage and take-up (fixed and mobile), and next-generation access network (NGA) coverage are high. Furthermore, progress is being made with NGA take-up. Most people in Belgium are now online and make good use of a variety of online services, particularly for shopping, entertainment and social networking. Their digital skills are good but not improving. However, some gaps still exist. The country's key challenges in connectivity are to convince more people to use mobile broadband. Despite a lot of innovative projects being launched to boost digital skills, the impact of these initiatives on human capital is not yet reflected in the statistics. A key challenge in this area is to motivate more young people in Belgium to start a career in digital technology and more generally to attract more pupils to consider studying a subject related to science, technology or mathematics ('STEM'). When it comes to the integration of digital technology by companies, Belgium is doing well, and there are several complementary strategies in place to further digitise Belgian businesses. For digital public services, Belgium shows an overall mixed picture, and progress compared to past years has been lower.

The 'Digital Belgium'² strategy presented in 2015 still defines the digital long-term vision for the country. There are also regional strategies such as 'Digital Wallonia'³.

Belgium belongs to the high-performing cluster of countries⁴.



² <http://digitalbelgium.be/>

³ <https://www.digitalwallonia.be/>

⁴ High-performing countries are Denmark, Sweden, Finland, the Netherlands, Luxembourg, Ireland, the UK, Belgium and Estonia.

1 Connectivity

1 Connectivity	Belgium		Cluster	EU
	rank	score	score	Score
DESI 2018	5	75.1	71.9	62.6
DESI 2017	4	72.7	67.9	58.5

	Belgium				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
1a1 Fixed Broadband Coverage % households	100% →	7	100%	7	97%
	2017		2016		2017
1a2 Fixed Broadband Take-up % households	81% ↑	7	80%	6	75%
	2017		2016		2017
1b1 4G Coverage % households (average of operators)	97% ↑	12	95%	7	91%
	2017		2016		2017
1b2 Mobile Broadband Take-up Subscriptions per 100 people	73 ↑	24	68	23	90
	2017		2016		2017
1c1 Fast Broadband (NGA) Coverage % households covered by VDSL, FTTP or Docsis 3.0	99% →	2	99%	2	80%
	2017		2016		2017
1c2 Fast Broadband Take-up % homes subscribing to >= 30Mbps	67% ↑	2	65%	2	33%
	2017		2016		2017
1d1 Ultrafast Broadband Coverage % households covered by FTTP or Docsis 3.0	97%	3	NA		58%
	2017				2017
1d2 Ultrafast Broadband Take-up % homes subscribing to >= 100Mbps	41.8 % ↑	3	29.6 %	4	15.4 %
	2017		2016		2017
1e1 Broadband Price Index Score (0 to 100)	82 ↓	19	84	17	87
	2017		2016		2017

With an overall connectivity score of 75.1, Belgium continues to be among the top performers in 2018. However, it slipped one rank compared to 2017. Belgium has almost universal coverage, and the indicators for fixed broadband and NGA coverage remain stable compared to the previous year. Take-up of fast broadband (30 Mbps and above) increased to 67 % and ultrafast broadband (100 Mbps and above) to 41.83 %. This positions Belgium among the EU leaders in the take-up of these networks. Belgium is performing less well in mobile broadband. Despite 4G coverage increasing to 97 %, mobile broadband take-up remains among the lowest in Europe with only 73 subscriptions per 100 people.

Belgium's connectivity targets are to provide all residents with internet access above 30 Mbps and to achieve internet access speeds of 1 Gbps for half of all households.

To achieve these objectives, reliance is on market-led investment supported by a favourable regulatory environment. Furthermore, a plan to cover 'white zones' in Wallonia with insufficient fixed-line and mobile connectivity is under preparation by the Minister for the Digital Agenda in close cooperation with the federal, regional and municipal levels.

Among the actions envisaged are: (i) measures to reduce the cost of broadband deployment in the context of the implementation of Directive 2014/61/EU, (ii) measures to stimulate

investment in areas where there is still no infrastructure and (iii) the combination of different access technologies including satellite and an increase in the requirements of mobile coverage under spectrum licences.

Furthermore, the Belgian regulator BIPT is currently carrying out new analyses of the wholesale broadband and broadcast markets (markets 3a/2014, 3b/2014 and 18/2003) and is expected to notify the European Commission of its findings in Q2 of 2018. In its earlier analysis — as nationally consulted — BIPT found significant market power (SMP) both for the former copper incumbent and the cable operators and has proposed to continue with access regulation on both networks. The main access seeker in Belgium currently relies on cable access.

Furthermore, the Flemish government announced plans to invest in fibre-to-the home (FTTH) and has asked the leading telecommunications operators for proposals to develop their infrastructures for a long-term future-proof network. A feasibility assessment of these proposals is still ongoing, and it has not been decided yet whether the way forward would be co-investment with different communication operators, or even with utilities, or roll-out by the Flemish government itself.

Summarising, Belgium performs quite well when it comes to achieving connectivity targets, in particular for coverage and uptake of fixed broadband. Further improvements could still be made to mobile connectivity where more competitive prices and demand side efforts could boost uptake. Finally, a favourable environment to facilitate investment in infrastructure development can help to improve competitiveness. For instance, full implementation and consistent application of the Broadband Cost Reduction Directive could provide incentives to invest in the roll-out of high-capacity networks..

2 Human Capital

2 Human Capital	Belgium		Cluster	EU
	rank	score	score	score
DESI 2018	12	57.5	70.7	56.5
DESI 2017	11	57.3	69.4	54.6

	Belgium				EU	
	DESI 2018		DESI 2017		DESI 2018	
	value	rank	Value	rank	value	
2a1 Internet Users	86%	↑	9	84%	9	81%
% individuals	2017		2016		2017	
2a2 At Least Basic Digital Skills	61%	→	9	61%	9	57%
% individuals	2017		2016		2017	
2b1 ICT Specialists	4.2%	→	6	4.2%	7	3.7%
% total employment	2016		2015		2016	
2b2 STEM Graduates⁵	13.3	↓	23	14.0	23	19.1
Per 1000 individuals (aged 20-29)	2015		2014		2015	

When it comes to human capital, Belgium performs well but is progressing only slowly. A large proportion of people in Belgium uses the internet regularly (86 % — at least once a week). This figure is well above the average for the European Union. Nevertheless, Belgium faces some digital skills gaps. For basic digital skills, Belgium performs above average in the EU: 61 % of the population had at least basic digital skills in 2017; the EU average was 57 %. However, still a substantial percentage of the population does not have basic digital skills. Belgium also suffers from a shortage of skilled ICT professionals and ranks only 23rd in Europe for graduates in science, technology, engineering and mathematics ('STEM').

While Belgium has an overall qualified workforce with a high participation rate in tertiary education, the persistently low share of STEM graduates is a matter of concern. All regions are developing plans to strengthen STEM and digital competences, which include the digital school plan (2014-2020) in Wallonia and the Flemish STEM action plan (2012-2020) in Flanders. Shortages in these fields could become a major barrier to growth and innovation, with scarcities already emerging for certain functions which require, for example, digital skills. Already today, there is a persistent shortage of qualified ICT experts in all three regions of Belgium⁶. Addressing the shortage of ICT specialists remains crucial to enable the digital transformation of the Belgian economy.

Over the last year, the Belgian federal government has launched several innovative initiatives to boost digital skills and to raise awareness about the need to up-skill and re-skill the labour force. The projects supported, for example, train young people and the

⁵ The most recent data has been 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.

⁶ In February 2018, there were more than 11 600 open vacancies for ICT experts. Source: real-time online database of the European Commission, http://www.pocbigdata.eu/monitorICTonlinevacancies/general_info/.

unemployed in programming and other digital skills. Landmark projects such as BeCentral⁷, a digital education and transformation hub in Brussels, or Molengeek⁸, a tech incubator and coding school, can be considered best practice at international level.

Highlight 2018: Digital Skills Fund

To teach young adults basic skills in coding and internet security, the Belgian minister for the digital agenda has earmarked EUR 18 million over 3 years for digital skills training projects. The money is made available through the Digital Belgium Skills Fund to provide digital training to people under the age of 30, with priority given to vulnerable groups. Every project selected is eligible to receive financial support of between EUR 50 000 and EUR 500 000. The first projects started in 2017 with a focus on coding and related digital competences and have already delivered the first results. For instance, BeCode,⁹ a free coding school located in the BeCentral digital hub in Brussels' Central Station, targets young people who are neither going to school nor working to help them get the skills they need to become employable.

⁷ <https://www.becentral.org/>

⁸ <https://molengeek.com/>

⁹ <https://www.becode.org/>

3 Use of Internet Services

3 Use of Internet Services	Belgium		Cluster	EU
	rank	score	score	score
DESI 2018	13	53.3	63.4	50.5
DESI 2017	11	51.9	60.5	47.5

	Belgium				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
3a1 News % individuals who used Internet in the last 3 months	64% ↓	26	65%	24	72%
	2017		2016		2017
3a2 Music, Videos and Games % individuals who used Internet in the last 3 months	72%	23	72%	23	78%
	2016		2016		2016
3a3 Video on Demand % individuals who used Internet in the last 3 months	12%	17	12%	17	21%
	2016		2016		2016
3b1 Video Calls % individuals who used Internet in the last 3 months	46% ↑	20	44%	16	46%
	2017		2016		2017
3b2 Social Networks % individuals who used Internet in the last 3 months	82% ↑	3	80%	3	65%
	2017		2016		2017
3c1 Banking % individuals who used Internet in the last 3 months	76% ↑	7	75%	7	61%
	2017		2016		2017
3c2 Shopping % individuals who used Internet in the last 12 months	67% ↑	11	65%	12	68%
	2017		2016		2017

In the use of internet services, Belgium's performance is only average, ranking 13th out of the 28 EU Member States. As mentioned above, most people in Belgium are now online (86 %). By far the most popular online activity in Belgium is being active on social networks (82 %). However, online banking (76 %), downloading music, videos and games (72 %), shopping (67 %) and reading online news (64 %) are also activities undertaken by the majority of internet users.

4 Integration of Digital Technology

4 Integration of Digital Technology	Belgium		Cluster	EU
	rank	score	score	score
DESI 2018	5	54.6	47.0	40.1
DESI 2017	5	52.4	44.0	36.7

	Belgium				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
4a1 Electronic Information Sharing % enterprises	54% 2017	↑ 1	50% 2015	1	34% 2017
4a2 RFID % enterprises	6.7% 2017	↑ 4	5.5% 2014	8	4.2% 2017
4a3 Social Media % enterprises	24% 2017	↑ 10	22% 2016	10	21% 2017
4a4 eInvoices % enterprises	18.3% 2017	↑ 14	15.5% 2016	14	NA 2017
4a5 Cloud % enterprises	NA 2017		20.3% 2016	7	NA 2017
4b1 SMEs Selling Online % SMEs	23.3% 2017	↑ 5	23.0% 2016	6	17.2% 2017
4b2 E-commerce Turnover % SME turnover	15.4% 2017	↓ 3	19.6% 2016	3	10.3% 2017
4b3 Selling Online Cross-border % SMEs	12.0% 2017	↓ 5	13.1% 2015	2	8.4% 2017

Belgium is doing well overall in the integration of digital technology, making steady progress except for e-commerce turnover and SMEs selling online cross-border where no progress was made. Stimulating the adoption of digital technologies combined with a workforce able to use these technologies could further underpin productivity growth. In view of this potential, the digitisation of businesses and industry are a priority in the digitisation agendas at federal level and in all three Belgian regions. There are several complementary digital industrial policies in Belgium: Digital Belgium at federal level, Industrie 4.010 and Made Different¹¹ in Flanders, Plan Marshall/Digital Wallonia¹² and digital.brussels¹³ for the capital region. 'Industrie 4.0' started in 2017 with a focus on streamlining the existing R&I actions in Flanders and connecting to international networks. The aim of Made Different¹⁴ is for the Flemish government, the technology federation Agoria and its joint research centre Sirris to strengthen Flanders' manufacturing industry and make it a world leader.

¹⁰ <https://www.vlaanderen.be/nl/vlaamse-regering/industrie-40>

¹¹ <http://www.madedifferent.be/>

¹² <http://planmarshall.wallonie.be/>

¹³ <http://cirb.brussels/fr/quoi-de-neuf/actualites/digital-brussels-une-nouvelle-strategie-numerique-unifiee-pour-la-region-bruxelloise>

¹⁴ <http://www.madedifferent.be/>

5 Digital Public Services

5 Digital Public Services	Belgium		Cluster	EU
	rank	score	score	score
DESI 2018	15	57.9	63.0	57.5
DESI 2017	15	52.3	60.2	53.7

	Belgium				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	Value
5a1 eGovernment Users % internet users needing to submit forms	50% ↑	19	48%	21	58%
	2017		2016		2017
5a2 Pre-filled Forms Score (0 to 100)	68 ↑	12	59	11	53
	2017		2016		2017
5a3 Online Service Completion Score (0 to 100)	84 →	16	84	14	84
	2017		2016		2017
5a4 Digital Public Services for Businesses Score (0 to 100) — including domestic and cross-border	81 ↑	20	79	19	83
	2017		2016		2017
5a5 Open Data % of maximum score	68% ↑	19	48%	21	73%
	2017		2016		2017
5b1 eHealth Services % individuals	21%	11	NA		18%
	2017				

For digital public services, Belgium shows a mixed picture overall, and progress has been slower compared to past years. While Belgium scores well in pre-filled forms and eHealth services, other dimensions could be improved. Belgium's federal structure poses specific challenges in establishing coherent and nationwide eGovernment services. Diverse and not necessarily interoperable systems can create friction losses. In certain areas, such as in the judiciary, the full potential of digital technology is not tapped into.

As a result, compared to its peers, Belgium is currently not yet using the full potential of digital public services. A number of initiatives are underway to address this challenge. The Digital Transformation Office¹⁵ set up by the federal government started operations last year, and a number of new services have been introduced. For example, it is now possible to log on to certain digital public services via a smartphone with the 'Itsme' application¹⁶.

The Belgian federal government transparently monitors and reports on progress and estimated cost savings in that field¹⁷. In the judiciary, insufficiencies in the reliability, comparability and uniformity of court data and delayed actions to improve the quality of the judicial system remain a concern. The roll-out of initiatives to digitalise certain court services to all courts has been progressing slowly.

¹⁵ <https://dt.bosa.be/en>

¹⁶ <http://digitalbelgium.be/veilige-mobiele-identificatie-voor-online-diensten-van-de-overheid-dankzij-itsme/>

¹⁷ <http://digitaldashboard.belgium.be/>

Belgium is performing relatively well in digital health services. ePrescription is widespread and will become mandatory (with a few exceptions) on 1 June 2018. Several actors also recently launched 'Health Tech Belgium',¹⁸ an initiative to make Belgium a test country for health tech innovation.

¹⁸ <https://www.agoria.be/en/Launch-of-HealthTech-Belgium-Let-s-make-Belgium-THE-world-s-test-country-for-Health-Tech-innovation>