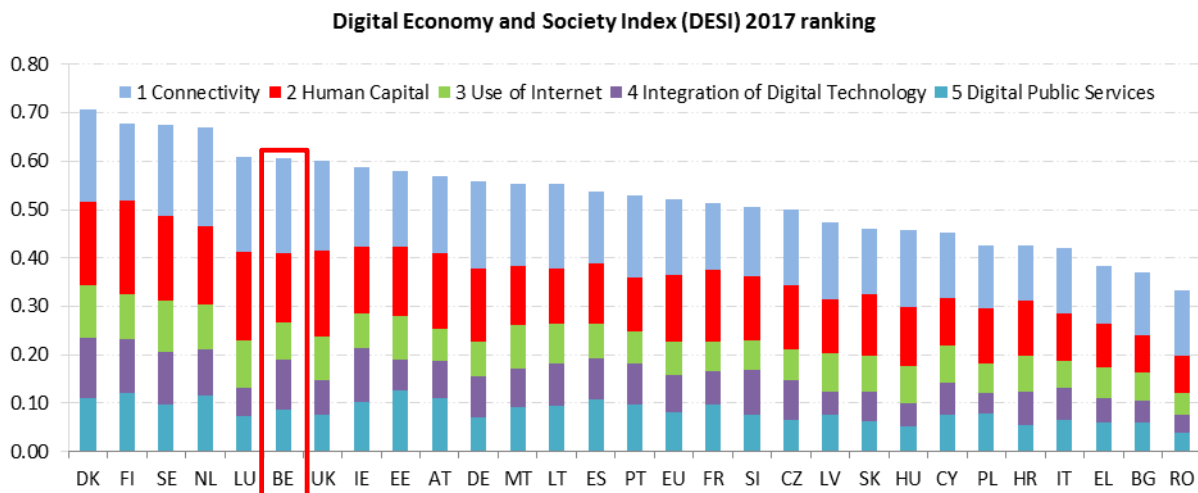


Europe's Digital Progress Report (EDPR) 2017 Country Profile Belgium

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>

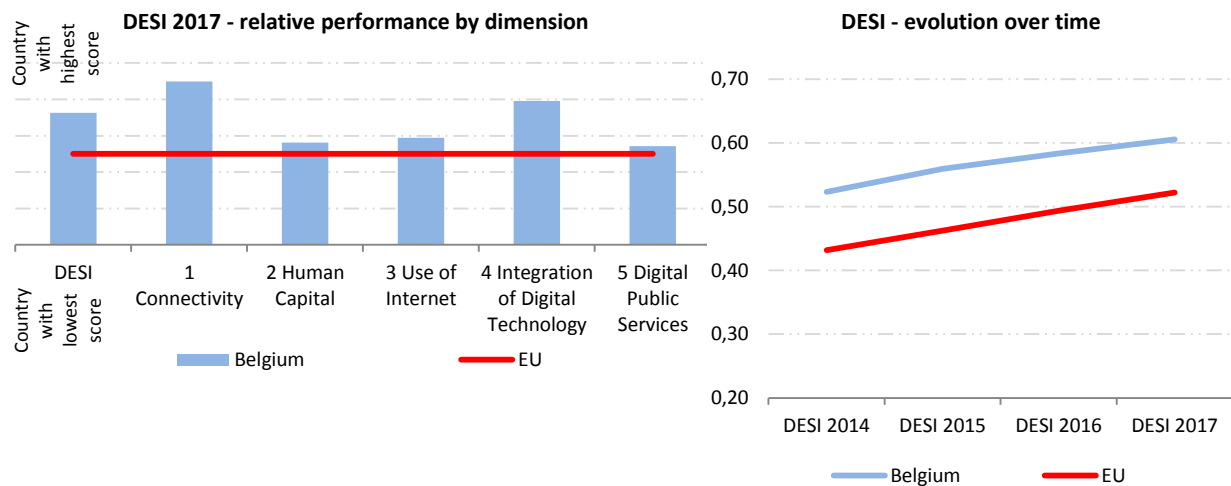
| | Belgium | | Cluster | EU |
|------------------------|----------|-------------|-------------|-------------|
| | rank | score | score | score |
| DESI 2017 | 6 | 0.61 | 0.63 | 0.52 |
| DESI 2016 ² | 5 | 0.58 | 0.60 | 0.49 |

Belgium ranks 6th in DESI 2017. Overall, it progressed slowly over the last year. Belgium ranks highest in connectivity (3rd) and integration of digital technology by businesses (5th), while digital public services are its biggest relative weakness. The country's key challenge is to continuously improve its mobile connectivity.

Belgium belongs to the cluster of high-performing countries³.

The strategy "Digital Belgium"⁴ presented in 2015 outlines the digital long-term vision for the country and sets out five priorities: digital infrastructure, digital confidence and security, digital skills and jobs, digital economy and digital government. Additional strategies are present at the regional level such as "Digital Wallonia".

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

⁴ <http://www.digitalbelgium.be/fr>

⁵ <https://www.digitalwallonia.be/>

1 Connectivity

| 1 Connectivity | Belgium | | Cluster | EU |
|----------------|---------|-------|---------|-------|
| | rank | score | score | score |
| DESI 2017 | 3 | 0.78 | 0.75 | 0.63 |
| DESI 2016 | 2 | 0.76 | 0.73 | 0.59 |

| | Belgium | | | | EU |
|---|------------------------------------|------|------------------------------------|------|------------------------------------|
| | DESI 2017 value | rank | DESI 2016 value | rank | DESI 2017 value |
| 1a1 Fixed Broadband Coverage % households | 99.93% 2016 | → 7 | 99.93% 2015 | 6 | 98% 2016 |
| 1a2 Fixed Broadband Take-up % households | 80% 2016 | ↑ 6 | 78% 2015 | 6 | 74% 2016 |
| 1b1 Mobile Broadband Take-up Subscriptions per 100 people | 68 June 2016 | ↑ 23 | 61 June 2015 | 23 | 84 June 2016 |
| 1b2 4G coverage⁶ % households (average of operators) | 95% 2016 | 7 | NA | | 84% 2016 |
| 1b3 Spectrum⁷ % of the target | 68% 2016 | ↓ 15 | 72% 2015 | 14 | 68% 2016 |
| 1c1 NGA Coverage % households | 99% 2016 | → 2 | 99% 2015 | 2 | 76% 2016 |
| 1c2 Subscriptions to Fast Broadband % subscriptions >= 30Mbps | 81% June 2016 | ↑ 1 | 78% June 2015 | 1 | 37% June 2016 |
| 1d1 Fixed Broadband Price⁸ % income | 1.3% price 2016, income 2015 | ↓ 18 | 1.2% price 2015, income 2015 | 18 | 1.2% price 2016, income 2015 |

In 2016, Belgium is still a leader in the Connectivity dimension, but slipped one place compared to 2015. Now third in the EU, the country has had to face relative performance deterioration as regards coverage and pricing of fixed broadband access as well as spectrum assignments. Improvements in the take up of fixed and mobile broadband of 2 and 7 percentage points were, on the other hand, not enough to improve the country's standing in those categories. In particular, the use of mobile connectivity in Belgium remains far below what is typical of other countries in the same cluster, and is less than half the level of the cluster leader. 4G coverage is at the cluster average, leaving room for further improvement in order to match the country's state-of-the-art NGA coverage.

The Belgian Government is committed to an ambitious digital agenda that is to grant users access to 1 Gbps connectivity by 2020 and to achieve a third rank on the Digital Economy and Society Index. To achieve these objectives, reliance is placed on market-led investment

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.

supported by a favourable regulatory requirement. A plan to cover “white zones” with insufficient fixed-line and mobile connectivity is under preparation with close cooperation between the federal, regional and municipal levels⁹. Moreover, a 2016 agreement between the Walloon Government and industry to facilitate deployment of wireless infrastructure in exchange for alleviating taxes provides an indication of possible ways of promoting roll-out of digital communications networks.

To further boost connectivity and to achieve a Gigabit society by 2020, Belgium will have to further promote broadband take-up as well as class-leading mobile infrastructure. Especially in the adoption of mobile broadband, the country is significantly outclassed by other high-performing countries. Targeted facilitation of infrastructure development jointly with the promotion of value-adding mobile connectivity solutions could provide a way forward in this respect. Speedy completion of putting the Cost Reduction Directive to work will be an important element of alleviating regulatory burdens for operators, as will greater coordination among municipalities on deployment conditions, which could lead to regional guidance.

⁹ <http://www.decree.be/fr/le-ministre-de-croo-%C3%A9labore-un-plan-d%E2%80%99action-pour-les-communes-mal-desservies-sur-le-plan-des>

2 Human Capital

| 2 Human Capital | Belgium | | Cluster | EU |
|-----------------|---------|-------|---------|-------|
| | rank | score | score | score |
| DESI 2017 | 11 | 0.57 | 0.68 | 0.55 |
| DESI 2016 | 11 | 0.56 | 0.66 | 0.53 |

| | Belgium | | | | EU | |
|---|-----------|------|-----------|------|-----------|------|
| | DESI 2017 | | DESI 2016 | | DESI 2017 | |
| | value | rank | value | rank | value | |
| 2a1 Internet Users % individuals | 84% | ↑ | 9 | 83% | 9 | 79% |
| | 2016 | | | 2015 | | 2016 |
| 2a2 At Least Basic Digital Skills % individuals | 61% | ↑ | 9 | 60% | 10 | 56% |
| | 2016 | | | 2015 | | 2016 |
| 2b1 ICT Specialists¹⁰ % employed individuals | 4.2% | → | 7 | 4.2% | 6 | 3.5% |
| | 2015 | | | 2014 | | 2015 |
| 2b2 STEM Graduates Per 1000 individuals (aged 20-29) | 14 | ↑ | 21 | 13 | 25 | 19 |
| | 2014 | | | 2013 | | 2014 |

In the Human Capital dimension, Belgium is performing well and slowly progressing. The inhabitants of Belgium are regular users of the Internet, and possess, on average, good digital skills. In 2016, 68 % of Belgians reported having at least basic digital skills. This compares with 56 % in the EU.

While Belgium disposes of an overall qualified workforce with a high participation rate in tertiary education, the country has a low share of graduates in science, technology and mathematics ("STEM"). 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, in certain geographic areas, there is a shortage of qualified ICT experts. Addressing the shortage of ICT specialists remains crucial to support digital transformation of the Belgian economy.

To boost digital skills in the population, the Belgian authorities have launched "Digital Champions"¹¹, the Belgian national digital skills coalition. The initiative federates several existing schemes and also experiments with new approaches such as bringing ICT professionals to schools to inspire young people. In early 2017, the Belgian federal government announced a digital skills fund of € 18 million over 3 years which will also fund coding and other digital skills training courses for young people. This initiative is being complemented by the launch of a highly visible digital education and transformation hub in the Central Station of Brussels called BeCentral¹².

¹⁰ Historical data have been revised by Eurostat.

¹¹ digitalchampions.be

¹² <http://www.becentral.org/>

In both Flanders and Wallonia, measures have been taken to tackle the low share of science and engineering graduates. Building on these initiatives, an even stronger dialogue between the educational systems and businesses to match curricula with labour market demand is still needed in view of the paradoxical presence of both high youth unemployment and at the same unfilled positions for ICT jobs.

3 Use of Internet

| 3 Use of Internet | Belgium | | Cluster | EU |
|-------------------|---------|-------|---------|-------|
| | rank | score | score | score |
| DESI 2017 | 11 | 0.52 | 0.60 | 0.48 |
| DESI 2016 | 12 | 0.49 | 0.57 | 0.45 |

| | Belgium | | | | EU |
|---|---------------|------|-------------|------|-------------|
| | DESI 2017 | | DESI 2016 | | DESI 2017 |
| | value | rank | value | rank | value |
| 3a1 News % individuals who used Internet in the last 3 months | 65% ↑ 2016 | 24 | 62% 2015 | 24 | 70% 2016 |
| 3a2 Music, Videos and Games¹³ % individuals who used Internet in the last 3 months | 72% 2016 | 23 | NA | | 78% 2016 |
| 3a3 Video on Demand¹⁴ % individuals who used Internet in the last 3 months | 12% 2016 | 17 | NA | | 21% 2016 |
| 3b1 Video Calls % individuals who used Internet in the last 3 months | 44% ↑ 2016 | 16 | 42% 2015 | 16 | 39% 2016 |
| 3b2 Social Networks % individuals who used Internet in the last 3 months | 80% ↑ 2016 | 3 | 78% 2015 | 2 | 63% 2016 |
| 3c1 Banking % individuals who used Internet in the last 3 months | 75% ↑ 2016 | 7 | 73% 2015 | 7 | 59% 2016 |
| 3c2 Shopping % internet users (last year) | 65% ↑ 2016 | 12 | 64% 2015 | 12 | 66% 2016 |

In terms of the propensity of individuals to use Internet services, Belgium further improved its performance from rank 12 to rank 11 in Europe. Belgian Internet users read news online (65%), listen to music, watch videos and play games online (72%), watch films (12%) and make Video Calls over the Internet (44%). They use social networks (80%) and use online banking (75%). Users in Belgium tend to use Internet for online shopping less than Europeans (65% of Internet users compared to 66% for the EU28), rank 12 among the 28 Member States.

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.

4 Integration of Digital Technology

| 4 Integration of Digital Technology | Belgium | | Cluster | EU |
|-------------------------------------|---------|-------|---------|-------|
| | rank | score | score | score |
| DESI 2017 | 5 | 0.52 | 0.44 | 0.37 |
| DESI 2016 | 5 | 0.48 | 0.41 | 0.35 |

| | Belgium | | | | EU |
|---|--------------|-----------|--------------|-----------|-------------|
| | DESI 2017 | | DESI 2016 | | DESI 2017 |
| | value | rank | value | rank | value |
| 4a1 Electronic Information Sharing | 50% | 2 | 50% | 2 | 36% |
| % enterprises | 2015 | | 2015 | | 2015 |
| 4a2 RFID | 5.5% | 8 | 5.5% | 8 | 3.9% |
| % enterprises | 2014 | | 2014 | | 2014 |
| 4a3 Social Media | 22% ↑ | 10 | 19% | 10 | 20% |
| % enterprises | 2016 | | 2015 | | 2016 |
| 4a4 eInvoices | 16% ↑ | 14 | 12% | 16 | 18% |
| % enterprises | 2016 | | 2015 | | 2016 |
| 4a5 Cloud | 18% ↑ | 7 | 17% | 7 | 13% |
| % enterprises | 2016 | | 2015 | | 2016 |
| 4b1 SMEs Selling Online | 23% ↓ | 6 | 24% | 5 | 17% |
| % SMEs | 2016 | | 2015 | | 2016 |
| 4b2 eCommerce Turnover | 19.6% | 3 | NA | | 9.4% |
| % SME turnover | 2016 | | 2015 | | 2016 |
| 4b3 Selling Online Cross-border | 13.1% | 2 | 13.1% | 2 | 7.5% |
| % SMEs | 2015 | | 2015 | | 2015 |

Belgium is overall doing well in the integration of digital technology, making steady progress except for SMEs selling online.

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 4.0” are also priority in the digitisation agendas of both the Flemish and the Walloon region, such as Made Different¹⁵ or Plan Marshall 4.0¹⁶.

At federal level, a new legal framework for the sharing economy was recently adopted covering income tax, social security, and VAT. For example, income from services provided through an app or a digital platform is taxed at a simplified reduced rate of 10% (see box).

¹⁵ <http://www.madedifferent.be/>

¹⁶ <http://planmarshall.wallonie.be/>

Highlight 2017¹⁷: A new legal framework for the collaborative economy

More and more people provide services to other individuals as mini-entrepreneurs through apps and other digital platforms (“sharing economy” or “collaborative economy”). The legal status of some of these activities was not fully clear. To enable innovative services to thrive and provide legal certainty, Belgium introduced a new innovative legal framework for such services in early 2017. Under these rules, these services will be taxed at a straightforward and reduced rate of 10%.

The new legislation will apply to income up to EUR 5000, thus also preventing fraud or unfair competition with small businesses and professional entrepreneurs. Before the introduction of the new rules, most activities in the sharing economy were subject to tax at a rate of 33%.

Instead of requiring individuals to report their income to the tax authorities, registered platforms have to withhold taxes at source and send the information to the tax authorities. According to the Belgian authorities, administrative charges will be minimal for the individuals offering services. They will not be required to register with the Belgian Enterprises Register or apply for a VAT number. Those who want to turn a second job in the sharing economy into a profession must switch to self-employed status in a primary or secondary profession.

¹⁷ Highlight 2016: Fix My Street Bruxelles/Brussel: As of April 2015, all 19 communes of Brussels are active members of Fix My Street Brussels, a web and mobile platform that allows citizens and the administration to report incidents in the public space. The website and mobile app were developed and are maintained by the informatics Centre for the Brussels Region (CIRB). The application enables localization and description of the damage, as well as it comprises an update tool that informs citizens and administration at each stage of the handling of the incident. Although an assessment of the impact has not been carried out so far, this is a promising service combining crowdsourcing of data for management of the public space, allowing citizens to track the progress made by public authorities.

5 Digital Public Services

| 5 Digital Public Services | Belgium | | Cluster | EU |
|---------------------------|---------|-------|---------|-------|
| | rank | score | score | score |
| DESI 2017 | 13 | 0.57 | 0.59 | 0.55 |
| DESI 2016 | 13 | 0.56 | 0.57 | 0.51 |

| | Belgium | | | | EU |
|--|-----------|------|-----------|------|-----------|
| | DESI 2017 | | DESI 2016 | | DESI 2017 |
| | value | rank | value | rank | value |
| 5a1 eGovernment Users % internet users (last year) | 40% ↑ | 10 | 39% | 10 | 34% |
| | 2016 | | 2015 | | 2016 |
| 5a2 Pre-filled Forms Score (0 to 100) | 59 ↓ | 11 | 65 | 10 | 49 |
| | 2016 | | 2015 | | 2016 |
| 5a3 Online Service Completion Score (0 to 100) | 84 ↓ | 17 | 85 | 15 | 82 |
| | 2016 | | 2015 | | 2016 |
| 5a4 Open Data¹⁸ % of maximum score | 48% ↑ | 21 | 34% | 21 | 59% |
| | 2016 | | 2015 | | 2016 |

Digital Public Services is the dimension where Belgium performs less well compared to its overall position in digital, and progress over the past year has stagnated. With a score of 0.57, the country ranks 13th among EU countries in Digital Public Services.

Belgium's federal structure poses specific challenges in establishing coherent and nationwide eGovernment services. Diverse and not necessarily interoperable systems create friction losses. In certain areas, such as in the judiciary, the full potential of ICT is not tapped.

In December 2016, the Belgian federal government announced the creation of the Digital Transformation Office in charge of the digital transformation of the federal government services. The new Office aims to be a centre of excellence and innovation in the use of new technologies and the use of data. The federal government also launched a new government cloud ("G-Cloud") which integrates the ICT applications of several federal services and ministries.

These initiatives complement the different projects underway, such as the "Vlaanderen Radicaal Digitaal" programme or the Federal Open Data Strategy 2015-2020 ("Stratégie fédérale 'Open Data'; Federale open data-strategie").

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