



Digital Economy and Society Index (DESI) 2017

Brussels, 3 March 2017

Questions and Answers

I - Results of DESI 2017

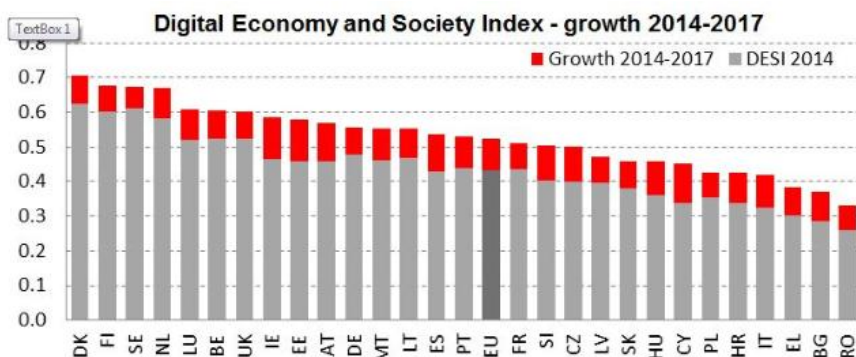
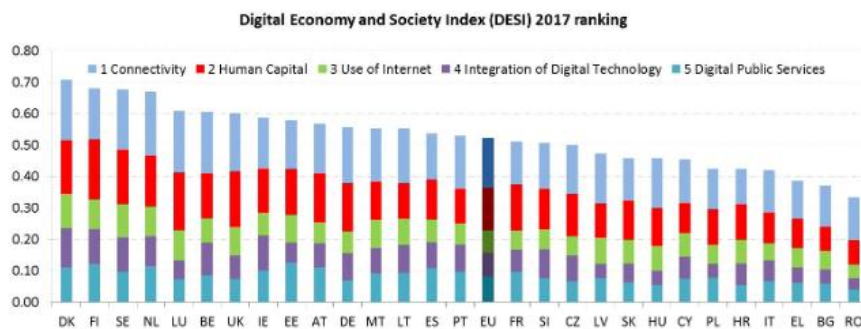
What is the Digital Economy and Society Index?

The Digital Economy and Society Index (DESI) is a composite index published every year by the European Commission, measuring progress of EU countries towards a digital economy and society. It brings together a set of relevant indicators on Europe's current digital policy mix.

The DESI is composed of five principal policy areas which regroup overall 31 indicators:

1 Connectivity	Fixed broadband, mobile broadband, broadband speed and prices
2 Human capital	Basic skills and internet use, advanced skills and development
3 Use of internet	Citizens' use of content, communication and online transactions
4 Integration of digital technology	Business digitisation and e-commerce
5 Digital public services	eGovernment

Here the results for 2017 DESI:

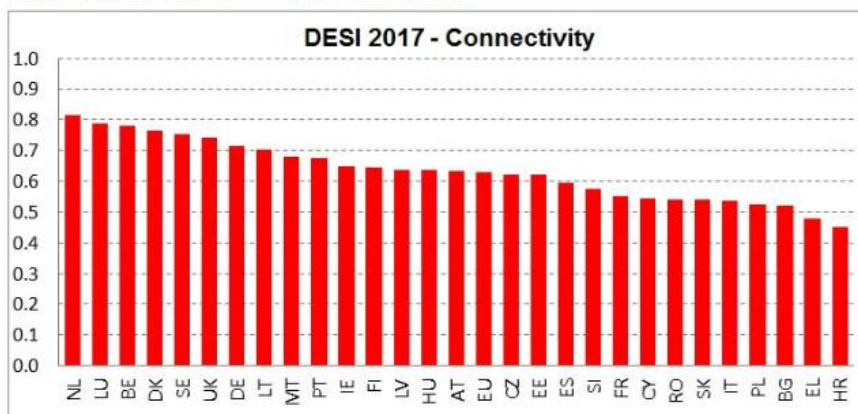


Comparison of progress between Member States

DESI ranking	DESI 2016 revised index	DESI 2017	Change in rank
DK	1	1	0
FI	2	2	0

SE	3	3	0
NL	4	4	0
LU	7	5	2
BE	5	6	-1
UK	6	7	-1
IE	8	8	0
EE	9	9	0
AT	10	10	0
DE	11	11	0
MT	13	12	1
LT	12	13	-1
ES	15	14	1
PT	14	15	-1
FR	16	16	0
SI	18	17	1
CZ	17	18	-1
LV	19	19	0
SK	22	20	2
HU	20	21	-1
CY	21	22	-1
PL	24	23	1
HR	23	24	-1
IT	25	25	0
EL	26	26	0
BG	27	27	0
RO	28	28	0

2017 DESI performance per dimension

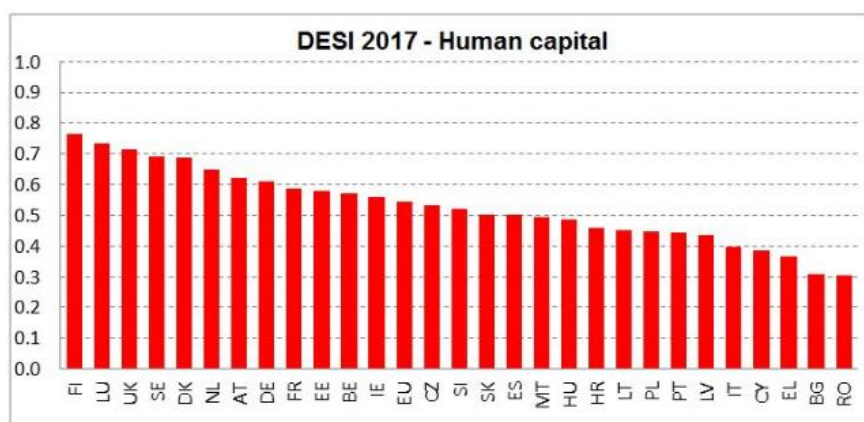


In connectivity the results show that 74% of European homes subscribe to fixed broadband, and over

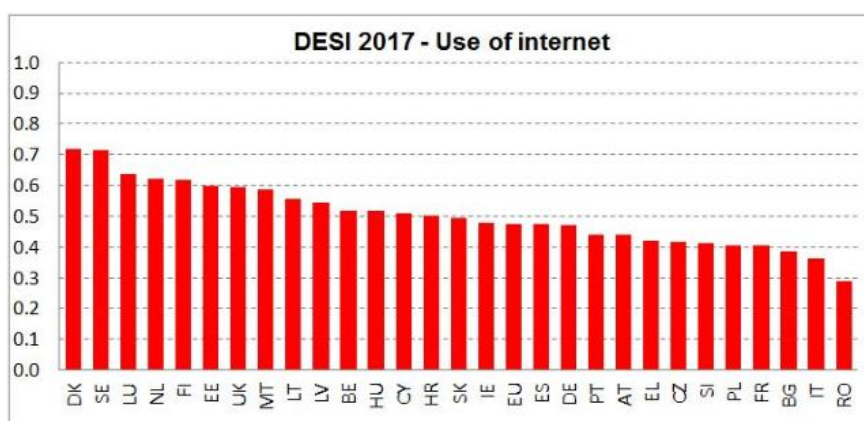
one third of these connections are high-speed. The number of high-speed subscriptions went up by 74% in two years. 4G mobile networks cover on average 84% of the EU's population (measured as the average of each mobile telecom operator's coverage within each country).

Germany, Latvia, Sweden and Lithuania have consistently scored best since 2013 on the percentage of harmonised spectrum effectively assigned to wireless broadband. These countries all have higher than average 4G coverage. This is why it is vital that Member States follow a policy of getting additional spectrum rapidly into the market. This is also essential in order to meet strategic connectivity objectives for 2025:

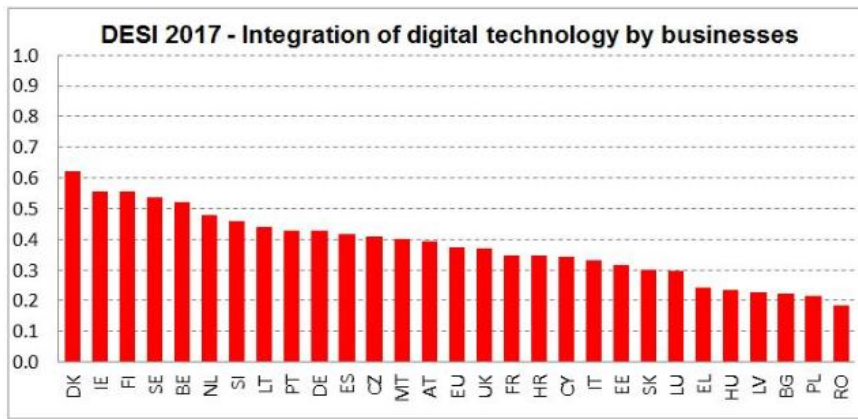
1. All main socio-economic drivers, such as schools, universities, research centres, transport hubs, all providers of public services such as hospitals and administrations, and enterprises relying on digital technologies, should have access to extremely high - gigabit - connectivity (allowing users to download/upload 1 gigabit of data per second).
2. All European households, rural or urban, should have access to connectivity offering a download speed of at least 100 Mbps, which can be upgraded to Gbps.
3. All urban areas as well as major roads and railways should have uninterrupted [5G coverage](#), the fifth generation of wireless communication systems. As an interim target, 5G should be commercially available in at least one major city in each EU Member State by 2020.



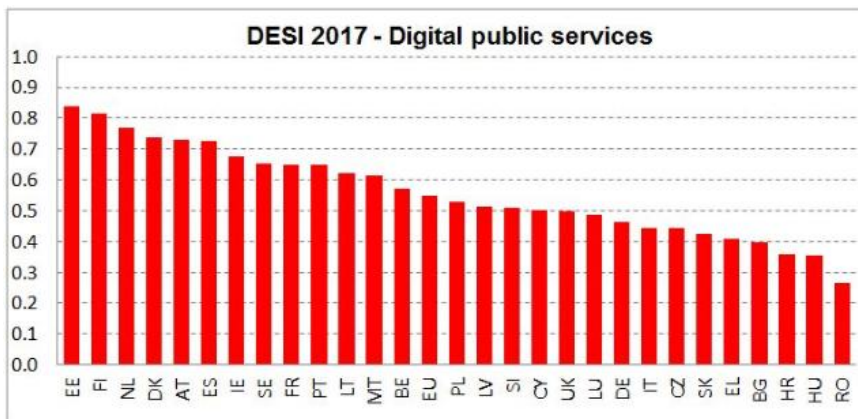
The Human Capital dimension combines basic digital skills of the population and their usage of internet. Additionally, it takes into account advanced skills, such as the number of ICT specialists, and the graduates in Science, Technology, Engineering and Mathematics (STEM). The results show that while internet usage is on rise, 44% of Europeans still lack basic digital skills.



Use of Internet analyses a wide range of activities people may do online. The percentage of internet users that read news online (70%), use the internet to perform video or audio calls (39%), use social networks (63%), shop online (66%) or use online banking (59%) increased slightly over the last couple of years.



Looking at the Integration of Digital Technology, European businesses are increasingly adopting digital technologies, such as the use of a business software for electronic information sharing (from 26% in 2013 to 36% of enterprises in 2015), sending electronic invoices (from 11% in 2014 to 18% of enterprises in 2016) or using social media to engage with customers and partners (from 14% in 2013 to 20% of enterprises in 2016).

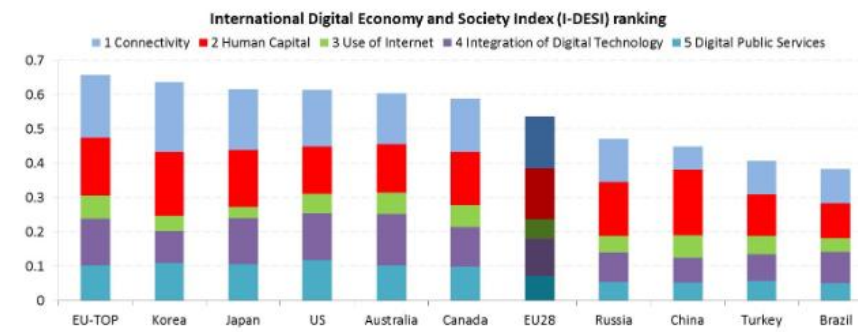


More and increasingly sophisticated public services are available online. 34% of internet users returned filled forms to the public administration online instead of handing in a paper copy (up from 27% in 2013).

How does the EU compare to other digitised countries worldwide?

In May 2016, the Commission published data comparing the digital performance of EU countries with 15 non-EU countries. [The International DESI \(I-DESI\)](#) evaluates the performance of both the individual EU countries and the EU as a whole in comparison to Australia, Brazil, Canada, China, Iceland, Israel, Japan, South Korea, Mexico, New Zealand, Norway, Russia, Switzerland, Turkey and the United States.

The results show that the top countries in Europe are also leading on the global stage. The three top performing countries (Denmark, Finland and Sweden) are closely followed by South Korea, United States and Japan. At the same time the EU average is significantly lower.



It is important to note that the I-DESI is built on a slightly different set of indicators than DESI due to the fact that some DESI indicators are not available in non-EU countries. As a result, the I-DESI rankings and scores are slightly different to those of the DESI.

II – DESI methodology

Where does the data come from?

The majority of DESI indicators come from the surveys of [Eurostat](#), the statistical office of the

European Union. Some broadband indicators are collected by the Commission services from the Member States through the [Communications Committee](#). Other indicators are derived from studies prepared for the Commission (e.g. some eGovernment and broadband indicators). [See the full list of indicators, exact definitions and sources.](#)

How is the DESI score calculated?

To calculate a country's overall score, each set and subset of indicators were given a specific weighting by European Commission experts. Connectivity and digital skills ('human capital'), each contribute 25% to the total score. Integration of digital technology accounts for 20%, since the use of ICT by the business sector is one of the most important drivers of growth. Finally, online activities ('use of internet') and digital public services each contribute 15%. For more details, see the [DESI methodological note](#).

How can DESI help the EU to improve its digital performance?

The DESI aims to help EU countries identify areas requiring priority investments and action, in order to bring all EU countries at the same level of digitisation. This is an essential element to the establishment of a truly Digital Single Market – one of the top priorities of the Commission. Building on the DESI findings and complementing the European Semester, the Commission's Digital Progress Report will give in May 2017 an in-depth assessment of how the EU and Member States are progressing in their digital development and will identify potential steps to improve national digital performance.

How are EU countries clustered?

Three clusters were created based on the DESI score.

- High performing countries are the 9 EU Member States with the highest DESI score. These are Denmark, Finland, Sweden, the Netherlands, Luxembourg, Belgium, the United Kingdom, Ireland and Estonia.
- Medium performing countries have close to average DESI scores. These are Austria, Germany, Malta, Lithuania, Spain, Portugal, France, Slovenia, the Czech Republic and Latvia.
- Low performing countries are the 9 Member States at the bottom of the list. These are Slovakia, Hungary, Cyprus, Poland, Croatia, Italy, Greece, Bulgaria and Romania.

What has changed in the structure of DESI compared to 2016?

To improve our methodology and take into account the latest technological developments, a limited number of changes were made in DESI 2017:

1) Connectivity

- 4G coverage: This is a new DESI indicator measuring the coverage of populated areas (the average of each mobile telecom operator's coverage within each country). The data have been collected through a survey of telecom operators and National Regulatory Authorities. A different indicator was used to measure 4G coverage in previous versions of the [Digital Scoreboard](#). The old 4G indicator measured the overall coverage of operators, and it showed higher figures than the new indicator.
- Broadband prices: A slightly revised methodology resulted in changes in data; the historical data was therefore re-stated.

2) Human capital

- ICT specialists: the historical data was revised by Eurostat.

3) Use of internet

- Music, video and games: A slightly changed definition resulted in a break in series meaning that 2016 figures are not directly comparable with earlier years.
- Video on Demand: A new source (Eurostat) was used, showing the percentage of internet users (last 3 months) using Video-on-Demand services.

4) Integration of digital technology: There was no change in this dimension

5) Digital public service

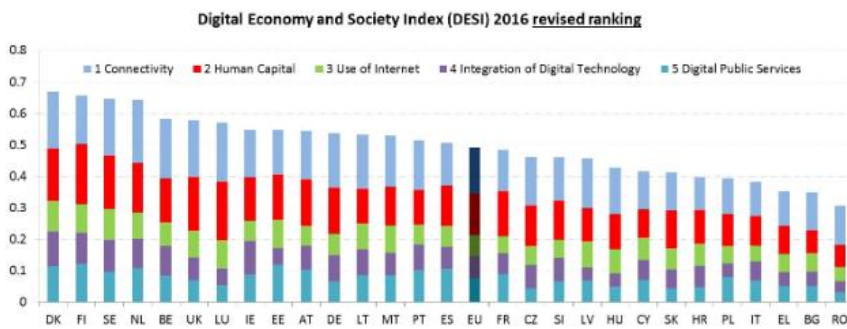
- Open data: A new source (European Data Portal) was used.

In addition, a limited number of historical data points were revised.

As of next year, the Commission will re-introduce a set of indicators to measure progress in eHealth as healthcare is becoming increasingly digitised and plays an important role in our digital society and economy.

How did the improved methodology affect the ranking of last year?

As a result of the improved methodology, the rankings for the previous years have slightly changed. The chart below presents the **revised ranking of DESI 2016**:



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