



## Digital Economy and Society Index 2021: overall progress in digital transition but need for new EU-wide efforts

Brussels, 12 November 2021

Today, the Commission published the results of the 2021 [Digital Economy and Society Index](#) (DESI), which tracks the progress made in EU Member States in digital competitiveness in the areas of human capital, broadband connectivity, the integration of digital technologies by businesses and digital public services. The DESI 2021 reports present data from the first or second quarter of 2020 for the most part, providing some insight into key developments in the digital economy and society during the first year of the COVID-19 pandemic. However, the effect of COVID-19 on the use and supply of digital services and the results of policies implemented since then are not captured in the data, and will be more visible in the 2022 edition.

All EU Member States have made progress in the area of digitalisation, but the overall picture across Member States is mixed, and despite some convergence, the gap between the EU's frontrunners and those with the lowest DESI scores remains large. Despite these improvements, all Member States will need to make concerted efforts to meet the 2030 targets as set out in [Europe's Digital Decade](#).

Executive Vice-President for a Europe Fit for the Digital Age, Margrethe **Vestager**, said: *"The message of this year's Index is positive, all EU countries made some progress in getting more digital and more competitive, but more can be done. So we are working with Member States to ensure that key investments are made via the Recovery and Resilience Facility to bring the best of digital opportunities to all citizens and businesses."*

Commissioner for the Internal Market, Thierry **Breton**, added: *"Setting ourselves 2030 targets was an important step, but now we need to deliver. Today's DESI shows progress, but also where we need to get better collectively to ensure that European citizens and businesses, in particular SMEs, can access and use cutting-edge technologies that will make their lives better, safer and greener."*

The 2021 DESI has been adjusted to reflect major policy initiatives including the [2030 Digital Compass: the European Way for the Digital Decade](#), which sets out Europe's ambition as regards digital and lays out a vision for the digital transformation and concrete targets for 2030 in the four cardinal points: skills, infrastructures, digital transformation of businesses and public services.

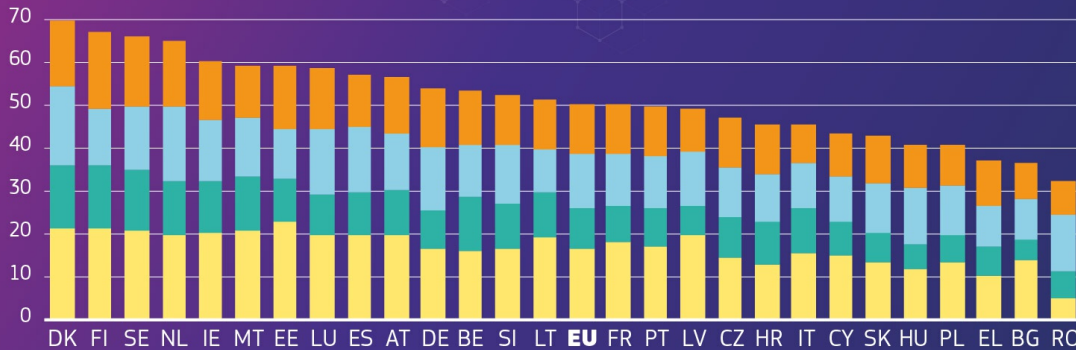
The [Path to the Digital Decade](#), a policy programme presented in September 2021, sets out a novel form of governance with Member States, through a mechanism of annual cooperation between EU institutions and the Member States to ensure they jointly achieve ambitions. 'The Path to Digital Decade' assigns the monitoring of the Digital Decade targets to the DESI and because of this, DESI indicators are now structured around the four cardinal points of the Digital Compass.

As part of the [Recovery and Resilience Facility \(RRF\)](#) the EU Member States have committed to spend at least 20% of their national endowments from the Recovery and Resilience Plan on digital and so far, Member States are meeting or largely exceeding this target. The DESI country reports incorporate a summary overview of the digital investments and reforms in the Recovery and Resilience Plans for the 22 plans that have already been adopted by the Council.

### Main findings of the 2021 DESI in the four areas

# DESI 2021

Digital Economy and Society Index



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With regard to **digital skills**, 56% of individuals in the EU have at least basic digital skills. The data shows a slight increase in ICT specialists in employment: in 2020, the EU had 8.4 million ICT specialists compared to 7.8 million a year earlier. Given that 55% of enterprises reported difficulties in recruiting ICT specialists in 2020, this lack of employees with advanced digital skills is also a contributing factor towards the slower digital transformation of businesses in many Member States. The data indicates a clear need to increase training offers and opportunities, in order to reach the targets in the Digital Decade for skills (80% of the population to have basic digital skills and 20 million ICT specialists). Significant improvements are expected in the coming years, partly because 17% of investments in digital in the Recovery and Resilience Plans that have so far been adopted by the Council are dedicated to digital skills (approximately €20 billion out of a total €117 billion).

The Commission has also published the [women in digital scoreboard](#) today, which confirms that there is still a substantial gender gap in specialist digital skills. Only 19% of ICT specialists and about one third of science, technology, engineering and mathematics graduates are female.

The data on **connectivity** shows an improvement in 'very high-capacity networks' (VHCN), particularly that it is available in 59% of the households in the EU, up from 50% a year ago, but still far from universal coverage of Gigabit networks (the digital decade target for 2030). The rural VHCN coverage went up from 22% in 2019 to 28% in 2020. Moreover, 25 Member States have assigned some 5G spectrum, compared to 16 one year ago. 5G has been launched commercially in 13 Member States, mainly covering urban areas. The Commission has also published today studies on [Mobile and Fixed Broadband Prices in Europe 2020](#), [Broadband Coverage up to June 2020](#), and on [national broadband plans](#). It is noteworthy that 11% of digital investments in the Recovery and Resilience Plans adopted by the Council (approximately €13 billion out of a total of €117 billion), are dedicated to connectivity.

With respect to the **integration of digital technologies**, there has been a large increase in usage of cloud technologies (from 16% of companies in 2018 to 26% in 2020). Large enterprises continue to lead the way in the usage of digital technologies: for example, they use electronic information sharing through enterprise resource planning (ERP) and cloud software much more frequently than SMEs (80% and 35% respectively for ERP and 48% vs. 25% respectively for cloud). Nevertheless, only a fraction of enterprises use advanced digital technologies (14% big data, 25% AI and 26% cloud). This data indicates that the current state of the adoption of digital technologies is far from the Digital Decade targets; the EU's ambition for 2030 is that 90% of SMEs have at least a basic level of digital intensity as opposed to the baseline of 60% in 2020, and that at least 75% of enterprises uses advanced digital technologies for 2030. At present, only a fraction of companies use Big Data even in several of the best performing countries, as opposed to the target of 75%. Importantly, about 15% of digital investments in the Recovery and Resilience Plans adopted by the Council (close to €18 billion out of a total of €117 billion), are dedicated to digital capacities and digital research and development.

Complementing the data in the DESI report is a study published today which surveyed the contribution of [ICT to the environmental sustainability actions of EU enterprises](#), which reveals that 66% of surveyed companies said that they use ICT solutions as a way of reducing their environmental footprint.

A major improvement in e-government services does not yet show in the data on **digital public services**. During the first year of the pandemic, several Member States created or enhanced digital platforms to provide more services online. 37% of investments in digital in the Recovery and Resilience Plans that have been adopted by the Council (approximately €43 billion out of a total of €117 billion), are dedicated to digital public services, so significant improvements are expected in the coming years. The Commission has also made available the [eGovernment Benchmark 2021](#), which surveys citizens in 36 European countries on their use of digital government services.

## Background

The annual Digital Economy and Society Index measures the progress of EU Member States towards a digital economy and society, on the basis of both Eurostat data and specialised studies and collection methods. It helps EU Member States to identify priority areas requiring targeted investment and action. The DESI is also the key tool when it comes to analysing digital aspects in the European Semester.

With a budget of €723.8 billion, the [Recovery and Resilience Facility](#) (RRF), adopted in February 2021, is the largest programme under Next Generation EU.

## For More Information

[Questions & Answers](#) - Digital Economy and Society Index (DESI) 2021

[Digital Economy and Society Index](#)

[Country performance in digital](#)

[Data Visualisation Tool](#)

[DESI 2021 methodology](#)

[2021 PREDICT Key Facts report: latest figures from ICT and R&D](#)

[Communication on Shaping Europe's Digital Future](#)

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