



## Questions and Answers: Digital Economy and Society Index (DESI) 2022

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### What is the Digital Economy and Society Index, and what does it measure?

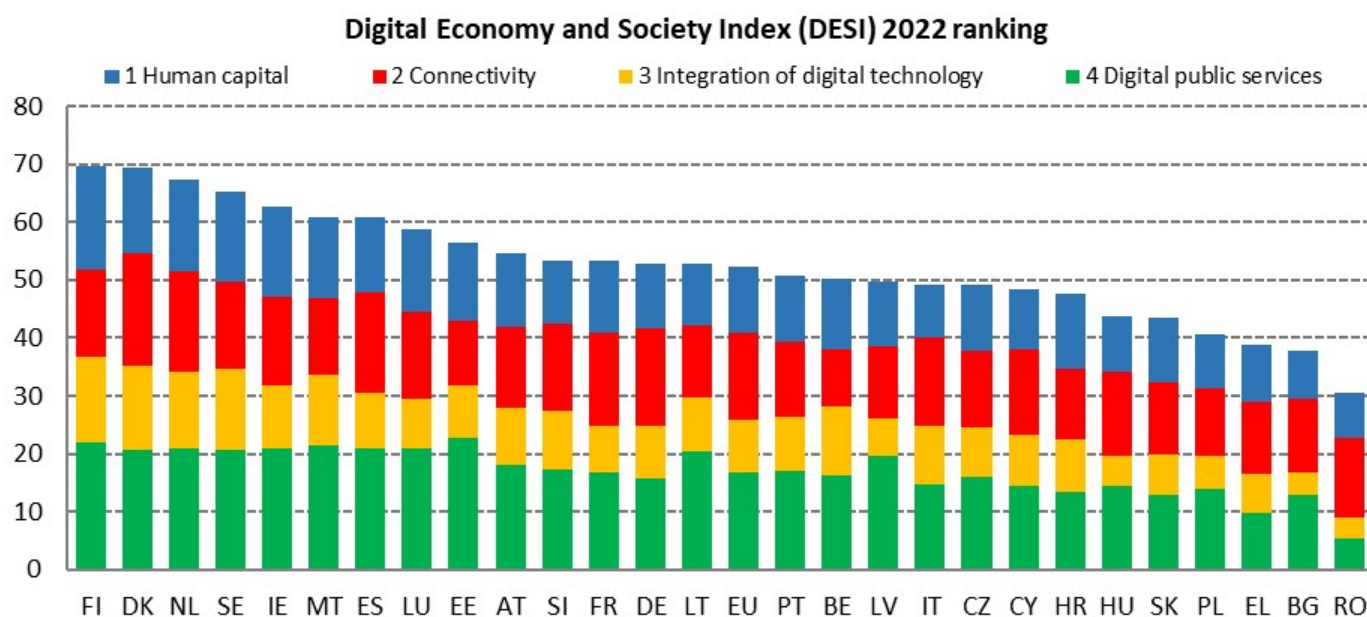
The [Digital Economy and Society Index](#) (DESI) is an annual report published by the European Commission that monitors the progress of EU Member States on their digital development. This report includes country profiles, which help Member States identify areas for priority action, as well as thematic chapters providing an EU-level analysis in the four principal policy areas: human capital, connectivity, integration of digital technology, and digital public services. In addition, the DESI country reports provide an assessment of national digital policies and an overview of the digital investments and reforms in the [Recovery and Resilience Plans](#).

### What is the link between DESI and the Digital Decade?

The proposed [Path to the Digital Decade Policy Programme](#) will use DESI indicators to monitor progress towards the 2030 targets. The targets set out in the proposed Digital Decade Policy Programme are organised under four cardinal points: a digitally skilled population and highly skilled digital professionals, secure and sustainable digital infrastructures, the digital transformation of businesses, and the digitalisation of public services. The structure of the DESI and indicators have been adapted accordingly. After the policy programme enters into force, which is expected by the end of 2022, the data from the DESI will feed into an annual report on the 'State of the Digital Decade'. This report will provide a comprehensive overview and assessment of the digital transformation in the EU.

### What is the overall performance of EU Member States in digital according to this year's DESI?

In terms of the overall ranking, Finland, Denmark, the Netherlands and Sweden have the most advanced digital economies in the EU, followed by Ireland, Malta and Spain. Romania, Bulgaria and Greece have the lowest DESI scores. The data indicates that Italy, Poland and Greece made the most progress over the last 5 years.



### Main findings of DESI 2022 in the 4 policy areas

#### Digital skills

In the area of **digital skills**, only 54% of people have at least basic digital skills, while 87% of people use the internet at least once a week (1 percentage point more than the previous year). The

target of the Path to the Digital Decade is that by 2030, at least 80% of citizens have at least basic digital skills. The expectation that an increased use of digital tools during the pandemic would have driven digital literacy, has not yet materialised. Evidence shows that it is not enough to have access to the internet in order to acquire the appropriate skills and fully benefit from digital tools. Finland, the Netherlands, Ireland and Sweden are the most advanced on skills, while Romania and Bulgaria are faced with notable gaps. In parallel, most jobs today require digital skills, from basic to advanced, and this shortage is a major bottleneck holding back EU enterprises from advancing in the digital economy.

## Connectivity

The **data on connectivity** shows that while the EU has full coverage of basic broadband infrastructure, 70% of households can benefit from fixed very high capacity networks (VHCN) that have the potential of offering gigabit speeds, which is an increase of 10 percentage points in comparison to the year before. 50% are now covered by fibre networks (FTTP), up from 43% the previous year. Despite some overall progress in 2021, a significant urban-rural divide persists in many Member States. Whereas Malta, Luxembourg, Denmark, Spain, Latvia, the Netherlands and Portugal are the most advanced Member States on total VHCN coverage (all with more than 90% of homes covered), by contrast, in Greece, only 1 in 5 households have access to VHCN. 5G coverage of populated areas grew substantially to 66% in 2021, compared to 14% in the previous year, achieving very high levels in countries such as Italy, Denmark, the Netherlands and Germany. However, depending on spectrum bands used, performance levels vary in terms of speed and capacity. The Path to the Digital Decade sets the target that by 2030, all end-users at a fixed location (such as households and businesses) should be covered by a gigabit network and all populated areas covered by next generation-wireless high-speed networks of at least 5G equivalent performance.

## Integration of digital technologies

Regarding the **integration of digital technologies**, the latest data shows that in 2021, only 55% of SMEs have at least a basic level in the adoption of digital technologies, with significant differences across Member States (from 86% in Sweden and 82% in Finland to 25% in Bulgaria and 22% in Romania). To reach the Digital Decade target, at least 90% of SMEs in the EU should have a basic level of digital intensity by 2030. Basic digital intensity means that an enterprise uses at least 4 of 12 selected digital technologies (such as using cloud, an enterprise resource planning software, AI, social media and selling online). The data indicates that businesses are becoming more and more digitalised, but the use of advanced digital technologies remains low and varies depending on the technology considered. While the use of cloud computing reached 34% of EU enterprises in 2021, the uptake of big data analytics and AI technologies remains substantially more limited: only 8% of EU enterprises used AI (in 2021) and 14% big data (in 2020). Following the [political agreement](#) on the Path to the Digital Decade, at least 75% of companies should take up either AI, cloud or big data technologies by 2030.

## Digital public services

**In the area of digital public services**, DESI monitors the online provision of public services by scoring Member States on whether or not it is possible to complete each step of key services (such as registering or rescheduling an appointment at a hospital, appealing against a court decision, requesting an environmental permit and setting up a business) completely online, and the extent to which they are available cross-border. The scores (describing how fully the services are provided online) reached 75 out of 100 for digital public services for citizens and 82 out of 100 for businesses. Estonia, Denmark, Finland and Malta have the highest scores for digital public services in DESI, while Romania and Greece have the lowest. The [Path to the Digital Decade](#) sets the target that all key public services for citizens and businesses should be fully online by 2030. Despite the progress, there is ample room for improvement as regards the availability of cross-border digital public services, as in comparison to the provision of domestic digital public services, the scores for cross-border services are 13 points lower for citizens and 14 points lower for business services.

## What are the sources of data?

The majority of DESI indicators come from [Eurostat](#), the statistical office of the European Union. Some broadband indicators are collected by the services of the European Commission from the Member States through the Communications Committee. Other indicators, such as some e-government and broadband indicators, are based on data derived from studies prepared for the Commission. The full list of indicators, exact definitions and sources is available [here](#).

## How does the Commission attribute a Member State an individual score?

To calculate a country's overall DESI score, the Commission gives a specific weighting to each set

and subset of indicators, as well as at the individual indicator level. The majority of individual indicators within each sub-dimension were considered of equal importance and, therefore, weighted equally within the respective sub-dimension. However, indicators measuring the targets of the Path to the Digital Decade were considered to have higher importance and they therefore have double weights within their sub-dimension. The weighting has not changed compared to the last edition of the report. More details are available in the DESI [methodological note](#). Additionally, the [data visualisation tool](#), makes it possible to change the weights of the four dimensions of the index according to one's own preference.

### **How are the national Recovery and Resilience Plans reflected in the analysis that you have published?**

The DESI country reports analyse the performance of EU Member States based on the index, describe the most important digital policy initiatives per country, and then identify their key challenges. EU Member States have committed to spending at least 20% of their national endowments under their Recovery and Resilience Plans on supporting the digital transformation. To date, an aggregate of €127 billion representing 26% of the total allocation of the 25 plans approved by the Council of the European Union, supports the digital transformation. The DESI country reports include a summary of the digital aspects of the national Recovery and Resilience Plans, where these have been approved by the Council, given the scale and importance of the [Recovery and Resilience Facility](#) (RRF), and the crucial role that this funding can play in addressing these challenges.

### **If there is such a large gap between the current situation and the 2030 targets, what is the Commission going to do to help close this gap?**

The Recovery and Resilience Plans are expected to have a major impact on the digital development plans, as EU Member States have committed to spending at least 20% of their national endowments on digital.

The governance framework under the Digital Decade Policy Programme, which was recently the subject of a [political agreement](#) between the EU co-legislators, will also help to close this gap. The Commission will first develop projected EU trajectories for each target to track progress. In turn, the Member States will submit national strategic roadmaps outlining their national trajectories and the actions they will take to achieve them, including planned regulatory measures and investments. Progress along EU and national trajectories will be assessed through the DESI, as presented in the Digital Decade Report. Additionally, multi-country projects should pool investments from EU funding resources, including from the Recovery and Resilience Facility, as well as from the Member States. Other public and private entities may invest in the projects where appropriate. The Commission will help Member States identify, set up and implement multi-country projects. Such projects may include common data infrastructure and services, blockchain, high performance computing, amongst others.

### **More information**

[Press release](#) – Digital Economy and Society Index 2022: overall progress but digital skills, SMEs and 5G networks lag behind

[Digital Economy and Society Index](#)

[Performance of individual member states](#)

[Methodological note](#)

[2022 PREDICT study in ICT and R&D](#)

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