



# EU BUDGET FOR THE FUTURE

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## DIGITAL TRANSFORMATION

### ... WHY IS THIS A PRIORITY?

Digital transformation holds the key to unlocking future growth in Europe.

Through dedicated programmes and targeted financial support, the future long-term budget of the EU will help to bridge the EU's digital investment gap, including in remote and rural areas. It will tackle digital challenges, from artificial intelligence to the promotion of digital skills, from personalised medicine based on supercomputer calculations to the capacity to equip the EU against cyberattacks and cybercrime.

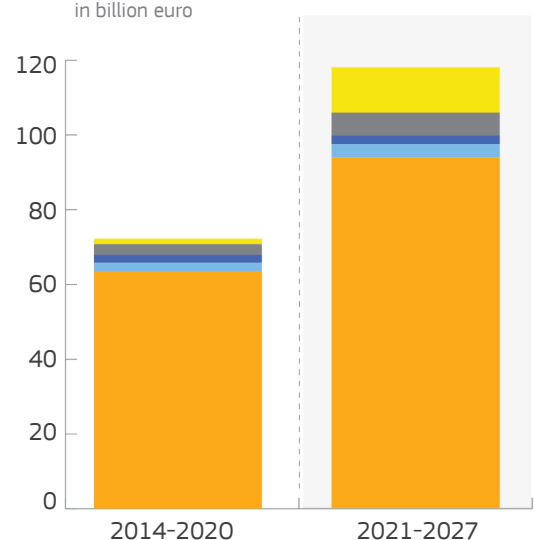
### WHAT DOES THIS MEAN IN FINANCIAL TERMS?

The Commission proposes to create a new **Digital Europe programme** with an overall budget of **€9.2 billion** to shape and support the digital transformation of Europe's society and economy.

The digital strand of the **Connecting Europe Facility** has a budget of **€3 billion** which will finance digital connectivity infrastructure.

### Investing in the future

in billion euro



Source: European Commission

Note: Compared to the Multiannual Financial Framework 2014-2020 at EU-27 (estimate)

- Digital Europe Programme & Connecting Europe Facility - Digital ■
- International Thermonuclear Experimental Reactor (ITER) ■
- Euratom Research and Training Programme ■
- Innovation Window InvestEU Fund ■
- Horizon Europe ■



## WHAT IS NEW IN THE COMMISSION PROPOSALS?

With an overall budget of €9.2 billion, the new **Digital Europe programme** will shape and support Europe's digital transformation to the benefit of citizens and businesses. Here are a few examples of what it will finance.

### UPSCALING OF DIGITAL INNOVATION HUBS TO MAKE THE MOST OF ARTIFICIAL INTELLIGENCE

The real value of the data economy will be captured only if artificial intelligence is widely adopted by the public and private sectors. Companies are reluctant to invest in artificial intelligence due to cost and lack of means to experiment. An essential step is to ensure the availability and proximity of facilities and expertise. One way to achieve this is through regional competence centres that could offer expertise and guidance for artificial intelligence uptake.

The Commission proposes open platforms and 'common data space' for artificial intelligence to be made available across the EU in digital innovation hubs, providing testing facilities and knowledge to small businesses and local innovators.

Digital Innovation Hubs are today one of the key elements of the Digitising European Industry strategy. Under the Digital Europe Programme, they would act as a one-stop-shop, providing their customers with:

- Access to digital technologies and competences,
- Infrastructure to experiment with digital innovations,
- Training to develop digital skills,
- Financing advice,
- Market intelligence and
- Networking opportunities

### EUROPEAN COOPERATION IN SUPERCOMPUTING

High-performance computers, or supercomputers, are needed to process ever-larger amounts of data and bring benefits to society in many areas from health care and renewable energy to car safety and cybersecurity.

The new Digital Europe Programme will strengthen the EU's high-performance computing and data-processing capacities, and ensure their wide use in areas such as health, the fight against climate change and security.

Today's European capacities are insufficient to meet increasing demand by European scientists and industry who process their data outside the EU because their needs are not matched by the computation time or computer performance available in the EU. At the moment, EU industry provides about 5% of supercomputing resources worldwide, but consumes one third of them.

#### Investment in high-performance computing (HPC) in the EU

60% of US level



#### Total computing power

25% of US level



Digital Europe will aim to deploy a world-class supercomputer and data infrastructure with exascale capabilities by 2022/2023 financial year (a billion billion (or  $10^{18}$ ) calculations per second), and post exascale facilities by 2026/2027 financial year, endowing the EU with its own independent and competitive technology supply, achieving excellence in applications and widening supercomputing availability and use.

## INVESTING IN EUROPEANS' DIGITAL SKILLS

Digital Europe will offer students and technology experts the opportunity to pursue training in advanced digital technologies, such as data analytics, robotics, artificial intelligence, blockchain technology, cybersecurity and high-performance computing. They will be offered specialised courses and internships in companies deploying advanced technologies.

The demand for information and communications technology specialists is growing fast.



In the future, **9 out of 10 jobs** will require digital skills



At the same time, **169 million Europeans between 16 and 74 years – 44%** – do not have basic digital skills.

## DEVELOPING VERY HIGH CAPACITY DIGITAL NETWORKS

The Connecting Europe Facility and the Digital Europe Programme will help develop very high capacity digital networks and the innovative digital services that go with it, including connected mobility. This will for example help creating a Digital Single market with connected cars that can communicate with each other or uninterrupted 5G coverage for all urban areas and major terrestrial transport paths.



## JOINING FORCES AGAINST CYBERATTACKS

Digital technologies form the backbone of Europe's economy - they open up new opportunities for citizens to connect and facilitate the dissemination of information. However, they have also brought about new risks as non-state and state operators increasingly try to steal data, commit fraud or even destabilise governments.

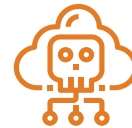
No country can face cybersecurity challenges alone, given the speed and the scope of the attacks.



**4 000 ransomware attacks** per day



**80%** of European companies experienced at least **one cybersecurity incident**



economic impact of cybercrime has **risen five-fold** over the past 4 years alone

Investment at EU level will ensure Member States can rely on more secure infrastructure for both public and private sectors. Digital Europe will provide tools, data and expertise to address the origins and propagation of attacks, as well as the means to track and prevent them.

### Awareness and knowledge

Despite the growing threat, awareness and knowledge of cybersecurity issues is still insufficient.



**69 % of companies** have no or basic understanding of their exposure to cyber risks



**60 % of companies** have never estimated the potential financial losses from a major cyberattack



**51 % of European citizens** feel not-at-all or not-well informed about cyberthreats



## HOW ELSE WILL THE FUTURE EU BUDGET MAKE A DIFFERENCE IN THIS AREA?

- Under its objective “A more connected Europe”, the **European Regional Development and Cohesion Funds** develop regional networks and systems to promote sustainable transport, smart energy grids, smart cities and high-speed digital access.
- The new research and innovation programme, **Horizon Europe**, covers the whole chain of research and innovation. It will include significant activities on digital technologies.
- The **Connecting Europe Facility** invests in projects that promote digital connectivity infrastructure of common European interest. For instance, the WiFi4EU programme offers vouchers worth €15,000 for municipalities to set up free Wi-Fi hotspots in public spaces, including libraries, museums, public parks, squares. The Facility contributes to ensuring that all main socio-economic drivers such as schools, hospitals, transport hubs, main providers of public services and digitally-intensive enterprises have access to **future-oriented broadband connections** by 2025.
- Under **InvestEU**, investments in digital will be possible under the four strands of the future InvestEU Fund, in particular in digital infrastructures, in the digital transformation of small businesses, in research on digital technologies and finally in support to social economy benefiting from the digital transformation.
- The new **European Social Fund+** will include support to upskilling and reskilling of the workforce to be ready for the new digital and automation challenges.



## NEXT STEPS

