Shaping the digital transformation: EU strategy explained

Learn how the EU is helping to shape the digital transformation in Europe to benefit people, companies and the environment.

The digital transformation is one of the EU's priorities. The European Parliament is helping to shape the policies that will strengthen Europe's capacities in new digital technologies, open new opportunities for businesses and consumers, support the EU's green transition and help it to reach climate neutrality by 2050, support people's digital skills and training for workers, and help digitalise public services, while ensuring the respect of basic rights and values.
What is the digital transformation?

- Digital transformation is the integration of digital technologies by companies and the impact of the technologies on society.
- Digital platforms, the Internet of Things, cloud computing and artificial intelligence are among the technologies affecting...
- ...sectors from transport to energy, agri-food, telecommunications, financial services, factory production and health care, and transforming people's lives.
- Technologies could help to optimise production, reduce emissions and waste, boost companies' competitive advantages and bring new services and products to consumers.

What is the EU doing to shape the digital transformation?

Boosting digitalisation brings many benefits to society. The EU wants to strengthen its digital sovereignty and set standards, rather than follow standards set by others, to make Europe fit for the digital age.

To guide the EU's digital transformation, the European Commission presented the Europe's Digital Decade policy programme, which contains concrete targets and objectives for 2030 in areas such as skills, secure and sustainable digital infrastructures, the digital transformation of businesses and the digitalisation of public services.

In May 2021, Parliament adopted a report on shaping the digital future of Europe, calling on the Commission to further tackle challenges posed by the digital transition and especially take advantage of the opportunities of the digital single market, improve the use of artificial intelligence and support digital innovation and skills.
Artificial intelligence and data strategy

Artificial intelligence (AI) could benefit people by improving health care, making cars safer and enabling tailored services. It can improve production processes and bring a competitive advantage to European businesses, including in sectors where EU companies already enjoy strong positions, such as the green and circular economy, machinery, farming and tourism.

To ensure Europe makes the most of AI's potential, MEPs have accentuated the need for human-centric AI legislation, aimed at establishing a framework that will be trustworthy, can implement ethical standards, support jobs, help build competitive “AI made in Europe” and influence global standards.

The Commission presented its proposal for AI regulation on 21 April 2021. Under the proposal, AI systems would be classified according to the risk they pose to users. Once approved, these will be the world’s first rules on artificial intelligence. Negotiations between the Parliament and EU countries on the final shape of the regulations are ongoing.

Read more on the EU’s AI Act

The success of AI development in Europe largely depends on a successful European data strategy. Parliament has stressed the potential of industrial and public data for EU companies and researchers and called for European data spaces, big data infrastructure and legislation that will contribute to trustworthiness.

To help unlock the potential of big data and artificial intelligence, Parliament adopted two acts to boost data sharing in 2022 and 2023.

Find out more on what Parliament wants for the European data strategy

Cybersecurity

As digital and physical are increasingly intertwined, new dangers arise, making cybersecurity important for areas ranging from consumer safety online to the normal functioning of hospitals, water and power supplies.

To better protect Europeans and businesses against cyber threats, Parliament adopted new laws strengthening EU cybersecurity in key sectors in November 2022.
In 2021, Parliament approved the establishment of a new European cybersecurity centre.

Rules to prevent the dissemination of terrorist content online were adopted in 2021 and have been in force since June 2022.

Read more on why cybersecurity is important and what the main and emerging cybersecurity threats are

Digital skills and education

The Covid-19 pandemic has demonstrated how important digital skills are for work and interactions, but has also accentuated the digital skills gap and the need to increase digital education. The Parliament wants the European skills agenda to ensure people and businesses can take full advantage of technological advancements.

42%

of EU citizens lack basic digital skills

Platform economy

Online platforms are an important part of the economy and people's lives. They present significant opportunities as marketplaces and are important communication channels. However, there also pose significant challenges.

The EU adopted the Digital Services Act and the Digital Markets Act with the aim of fostering competitiveness, innovation and growth, while boosting online security, tackling illegal content, and ensuring the protection of free speech, press freedom and democracy.

Read more about the Digital Services Act and the Digital Markets Act

Chips Act: the EU’s plan to overcome semiconductor
shortage

Since late 2020, there has been an unprecedented shortage of semiconductors around the globe, caused, among other reasons, by the Covid-19 pandemic and the war in Ukraine. With the European Chips Act, the EU aims to increase the production of semiconductors in Europe.

The production of microchips relies on extremely complex and interdependent supply chains that span across the globe. In order to increase the EU’s independence, ensure future competitiveness and maintain technological leadership, the EU’s capabilities in semiconductor manufacturing need to be reinforced. Under the proposed legislation, the share of the EU in global production capacity should increase from less than 10% to 20%.

Intelligent road transport systems

Parliament adopted new rules on the deployment of intelligent transport systems (ITS) in road transport in October 2023. These rules aim to increase the availability of digital traffic data, promote digitalisation within the transportation sector and facilitate data sharing among mobility applications. The goal is to increase road safety, efficiency, and sustainability in mobility.

The rules do not favour any specific technology for intelligent transport services, but want to make sure that the apps are able to work well with each other. They should be designed to provide clear and easily understandable information to users about the various transportation choices available to them and not discriminate against vulnerable road users. EU countries will need to work together more, especially for cross-border projects, to ensure smooth transportation across borders.

Online video games: protecting gamers and boosting the sector’s potential

The online video game sector is booming and contributing to the digital transformation of the EU. As the gaming industry is expanding rapidly, the economic, social, educational, cultural and innovative aspect of online video games has to be taken into account.

The EU wants to support the gaming sector, which has created than 90,000 jobs directly in Europe and has a market size of €23.3 billion in 2021. At the same time, a safer environment for players has to be ensured. MEPs call for establishing rules regulating problematic purchasing practices like loot boxes, better cancellation and data protection policies as well as...
more protection for minor players and vulnerable groups.

**European Digital Identity: easy online access to key services**

Since the start of the Covid-19 pandemic, more public and private services have become digital. This requires secure and reliable digital identification systems.

The EU is working on a European Digital Identity (eID) to enable the mutual recognition of national electronic identification schemes across borders. With the eID, European citizens will be able to identify and authenticate themselves online without having to resort to commercial providers. They will also be able to access online services from other EU countries using their national electronic identity card.

**Fair taxation of the digital economy**

Most tax rules were established well before the digital economy existed. To reduce tax avoidance and make taxes fairer, the EU is working on rules so that profits are taxed where companies have a significant digital presence.

The EU has also adopted rules on a minimum tax rate for multinational companies in the Union in line with a global agreement on the matter.

To help boost the development of cryptocurrencies while protecting users, the EU is working on regulating crypto-assets and the technology behind them.

**Ensuring high-quality digital infrastructure**

Parliament is also working on a law to help reduce costs and bureaucracy in the construction of very high-speed networks. In October 2023, Parliament approved its negotiating position for talks with EU countries on the draft of the Gigabit infrastructure act, which aims to ensure access to high-speed internet for all EU households and 5G coverage in all populated areas by 2030.

**Funding of the EU's digital priorities**
Digital plays an essential role in all EU policies. The Covid crisis accentuated the need for a response that will benefit society and competitiveness in the long run. Digital solutions present important opportunities and are essential to ensuring Europe's recovery and competitive position in the global economy.

The EU's plan for economic recovery demands that member states allocate at least 20% of the €672.5 billion Recovery and Resilience Facility to digital transition. Investment programmes such as the research and innovation-centred Horizon Europe and infrastructure-centred Connecting Europe Facility allocate substantial amounts for digital advancements as well.

While the general EU policy is to endorse digital goals through all programmes, some investment programmes and new rules specifically aim to achieve them.

In April 2021, Parliament adopted the Digital Europe programme, the EU's first financial instrument focused specifically on bringing technology to businesses and people. It aims to invest in digital infrastructure so that strategic technologies can help boost Europe’s competitiveness and green transition, as well as ensure technological sovereignty.

It will invest €7.6 billion in five areas: supercomputing (€2.2 billion), artificial intelligence (€2.1 billion), cybersecurity (€1.6 billion), advanced digital skills (€0.6 billion), and ensuring a wide use of digital technologies across the economy and society (€1.1 billion).

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