

## Electronics

Micro and nano-electronics take us to the world in miniature, where big things are facilitated by the smallest and smartest electronic components and systems.



When talking about micro-technologies, we are referring to those in millimetres. Nanotechnologies take us even smaller, to nanometres: one millionth of a millimetre, or 1/60,000 the width of a human hair.

### **Why are these tiny things so important?**

We have come to depend more and more on electronic components and systems; these technologies and the solutions that they provide are the very basis of our everyday devices, such as mobile phones and computers.

### **This is just the beginning**

Within this field we are working at the frontiers of hardware and software. Micro and nano-electronics are part of the key enabling technologies (KETs). KETs are the drivers of the development of digital goods. They can open important new possibilities for Europe's growth and industrial competitiveness, create new jobs and usher in new products and services.

## **Key Digital Technologies Partnership**

The Council has given its green light to a European joint undertaking on key digital technologies. This will involve a partnership between the European Union, Member States, and/or industry. Once set up, new calls for proposals will be launched, to select and finance research and innovation projects according to their respective objectives.

The key digital technologies partnership will focus on electronic components. This includes the design, manufacture of such components, and their integration into systems. It aims to support the digital transformation of the economy and society and help progress towards the European Green Deal. It will also support research and innovation for next-generation microprocessors, increasing Europe's competitiveness and technological sovereignty in this area.

Follow the latest progress and learn more about getting involved.

Follow the Commission's work on electronics @Electronics\_EU

## Latest

PRESS RELEASE | 19 November 2021

Commission welcomes approval of 10 European Partnerships to accelerate the green and digital transition

The Council of the European Union gave today its green light to the Single Basic Act, a regulation aimed at facilitating the launch of 9 new European

Partnerships, namely 'Joint Undertakings', between the European Union, Member States and/or the industry, to deliver innovative solutions in Europe for global health, technology and climate challenges.

PRESS RELEASE | 19 July 2021

Commission launches alliances for microelectronics and cloud technologies

The European Commission has kick-started two new Industrial Alliances: the Alliance for Processors and Semiconductor technologies, and the European Alliance for Industrial Data, Edge and Cloud.

PRESS RELEASE | 23 February 2021

EU to set up new European Partnerships and invest nearly €10 billion for the green and digital transition

The Commission has proposed to set up 10 new European Partnerships between the European Union, Member States and/or the industry. The goal is to speed up the transition towards a green, climate neutral and digital Europe, and to make European industry more resilient and competitive. The EU will provide nearly €10 billion of funding that the partners will match with at least an equivalent amount of investment.

DIGIBYTE | 23 February 2021

Key Digital Technologies: new partnership to help speed up transition to green and digital Europe

The Commission announced a new partnership aimed at reinforcing Europe's innovation potential, boosting its competitiveness and ensuring technological sovereignty in the field of electronics.

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## **Related Content**

### **Big Picture**

Advanced computing

EU investment in high performance computing and computing technologies will enable Europe to lead the way in supercomputing in the Digital Decade.

### **Dig deeper**

Alliance on Processors and Semiconductor technologies

The Alliance on Processors and Semiconductor Technologies brings together key actors to design and produce microelectronics chips.

## **See Also**

Destination Earth

Destination Earth aims to develop a high precision digital model of the Earth to model, monitor and simulate natural phenomena and related human activities.

Photonics

We are on the verge of a new photonics era, and the European Commission is working to ensure citizens and businesses enjoy the full benefits of this technology.

Quantum

To unlock the transformative power of quantum, the EU should develop a solid industrial base that builds on its tradition of excellence in quantum research.

High Performance Computing

High performance computing refers to computing systems with extremely high computational power that are able to solve hugely complex and demanding problems.

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