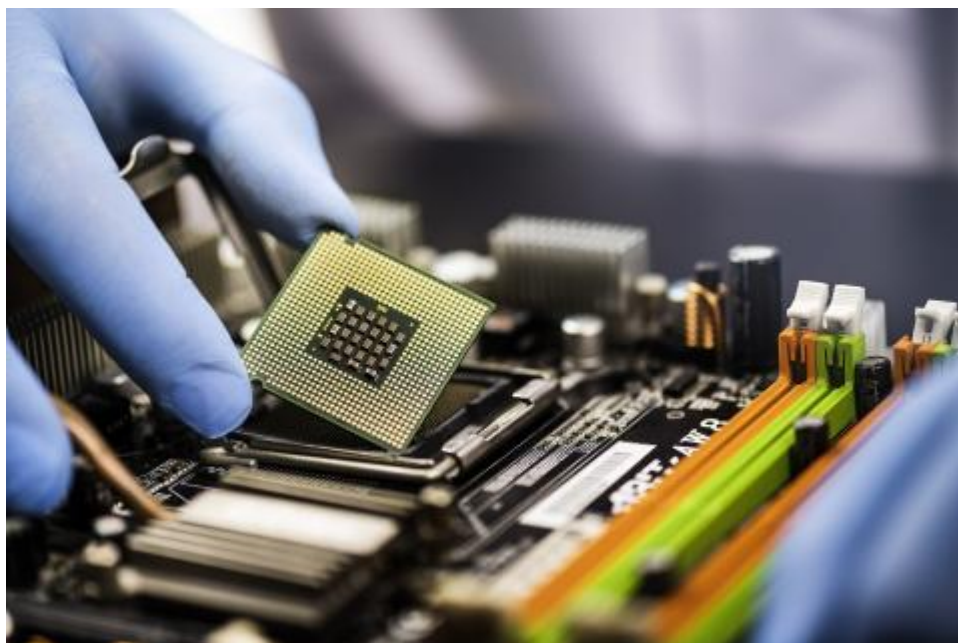


[Key Digital Technologies: new partnership to help speed up transition to green and digital Europe](https://digital-strategy.ec.europa.eu/en/news/key-digital-technologies-new-partnership-help-speed-transition-green-and-digital-europe) (<https://digital-strategy.ec.europa.eu/en/news/key-digital-technologies-new-partnership-help-speed-transition-green-and-digital-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.



Identified as one of the priorities at the heart of ensuring Europe's digital sovereignty, the newly launched Key Digital Technologies partnership will support the digital transformation of all economic and societal sectors, make the transformation work for Europe and support the European Green Deal by contributing towards the EU's target of becoming the world's first climate-neutral continent by 2050. Elements of the Green Deal such as the supply of clean, affordable and secure energy, resource-efficient buildings, sustainable and smart mobility, as well as healthy and environment-friendly food supply chains all rely on KDTs to achieve their ambitions.

The KDT partnership is one of the actions on processors and semiconductor technologies that are planned by the European Commission, Member States, and industry. Other actions are the [Declaration](https://ec.europa.eu/digital-single-market/en/news/member-states-join-forces-european-initiative-processors-and-semiconductor-technologies) (<https://ec.europa.eu/digital-single-market/en/news/member-states-join-forces-european-initiative-processors-and-semiconductor-technologies>) on a European Initiative on Processors and semiconductor technologies that is signed by 20 Member States, an [Industrial Alliance on microelectronics](https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_20_1362) (https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_20_1362), and a possible new Important Project of Common European Interest on microelectronics.

Nearly €10 billion is being invested by the Commission to set up a total of ten partnerships between the Union, Member States and the industry with the joint overarching goal to speed up the transition towards a green, climate neutral and digital Europe. The proposal was adopted today, setting the

wheels in motion for the partnerships, including the KDT partnership. The EU funding will be complemented by investments from private partners and Member States and the combined investment will help create more jobs, while helping reduce climate change.

What does this mean in practice?

The new KDT Partnership aims to:

- Provide innovative electronic components and systems, software and smart integration to digital value chains, providing secure and trusted technologies tailored to the needs of user industries and citizens. This will help reinforce Europe's potential to innovate.
- Develop and apply these technologies to address major global challenges in mobility, health, energy, security, manufacturing and digital communications. This will contribute to and strengthen Europe's scientific and technological bases.
- Better align R&I and industrial policies for a joint approach in mastering these drivers of innovation.

What are Key Digital Technologies?

KDTs have been identified as one of the main drivers towards Europe's digital sovereignty and its capacity to produce high-quality microelectronics. They make up electronic and photonic components, as well as the software that defines how they work, thus underpinning all digital systems including Artificial Intelligence and the Internet for Things.

Semiconductor components – chips that capture, store, process, transmit and act on data – are often vital ingredients of electronic components and systems. Semiconductor chips, in particular processors, are of growing importance in data processing for data infrastructure and communication, high-end and general purpose computing and future applications such as autonomous driving.

Why is a KDT Partnership needed?

With its Strategy on Shaping Europe's Digital Future, the Commission set out its vision for how to make the digital transformation work for people, businesses and the planet, in line with EU values, and how to retain technological and digital sovereignty and be the global digital leader.

The KDT Partnership builds on the current Electronic Components and Systems for European Leadership Joint Undertaking ([ECSEL \(https://www.ecsel.eu/\)](https://www.ecsel.eu/) JU), which was set up in 2014 with the aim of keeping Europe at the forefront of technology development in electronics.

Today Europe accounts for roughly 9-10% of global production – up from 6% five years ago thanks to the EU ECSEL initiative, which has been instrumental to reverse this trend. This is proof that when we get organised in Europe, with a clear aim, we can make a real difference.

Funding

The Commission proposed a financial contribution of €1.8 billion between 2021-2027 for the KDT partnership. At the same time, participating Member States make a similar contribution, while industry, research organisations, academia etc. contribute roughly €2.5 billion via the industrial associations [AENEAS \(https://aeneas-office.org/\)](https://aeneas-office.org/), [ARTEMISIA \(https://artemis-ia.eu/\)](https://artemis-ia.eu/) and [EPoSS \(https://www.smart-systems-integration.org/\)](https://www.smart-systems-integration.org/).

Background information

The European Partnerships are initiatives where the EU, together with private and/or public partners, commit to jointly support the development and implementation of a programme of research and innovation activities, including those related to market, regulatory or policy uptake. They are a key instrument of implementation under Horizon Europe – the new EU Framework Programme for Research and Innovation (2021-2027). Combining European private and public sector funds, they complement the existing policy framework by addressing the global challenges and EU priorities that require critical mass and a long-term vision within specific sectors. Institutionalised European partnerships are open to a wide range of private and/or public partners (such as industry, universities, research organisations, bodies with a public service mission at local, regional, national or international level or civil society organisations including foundations and NGOs) to ensure that these solutions are taken up and can ultimately deliver on the ambitious goals.

Related topics

[Advanced Digital Technologies \(https://digital-strategy.ec.europa.eu/en/related-content?topic=117\)](https://digital-strategy.ec.europa.eu/en/related-content?topic=117)
[Electronics \(https://digital-strategy.ec.europa.eu/en/related-content?topic=53\)](https://digital-strategy.ec.europa.eu/en/related-content?topic=53) [Boosting European digital Industry \(https://digital-strategy.ec.europa.eu/en/related-content?topic=49\)](https://digital-strategy.ec.europa.eu/en/related-content?topic=49)

Related content

[Key Digital Technologies Workshop on Silicon Photonics \(https://digital-strategy.ec.europa.eu/en/events/key-digital-technologies-workshop-silicon-photonics\)](https://digital-strategy.ec.europa.eu/en/events/key-digital-technologies-workshop-silicon-photonics)

Event | 30 March 2022

This online workshop will explore silicon photonics in the context of the Key Digital Technologies Joint Undertaking (KDT JU).

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