

Quantum Technologies Flagship

The Quantum Technologies Flagship is a long-term research and innovation initiative that aims to put Europe at the forefront of the second quantum revolution and bring transformative advances to science, industry and society.



Launched in October 2018, the Quantum Technologies Flagship is due to support the work of hundreds of quantum researchers over ten years, with an expected budget of EUR 1 billion from the EU. It brings together research institutions, industry and public funders, consolidating and expanding European scientific leadership and excellence in quantum technologies. Its aim is to support the transformation of European research into commercial applications that make full use of the disruptive potential of quantum.

In the Flagship's ramp-up phase (October 2018-September 2021), its total budget is €152 million, for a total of 24 projects. It is funding projects in four core application areas:

- quantum computing
- quantum simulation
- quantum communication
- quantum metrology and sensing.

It also funds research into the basic science behind quantum technologies, as well as education and international cooperation activities in quantum technologies.

Read more about the first 20 Flagship projects

To mark the mid-point of the Flagship's ramp-up phase, a report (.pdf) was published with details of

its achievements in its first eighteen months of activities.

The Flagship's research goals are shaped by its Strategic Research Agenda, to which over 2000 European quantum experts contributed. Its long-term vision is to develop in Europe a so-called quantum internet, where quantum computers, simulators and sensors are interconnected via quantum communication networks.

Funding for the Flagship is expected to continue in Horizon Europe, the EU's new research framework programme.

Quantum Technologies Flagship website

Quantum Technologies Flagship launch: press release (29/10/2018)

Quantum Technologies Flagship launch: questions and answers

Related Content

Big Picture

Quantum

In the global race to unlock the potential of quantum technologies and bring transformative advances to science, industry and society, it is crucial to develop a solid industrial base that builds on Europe's long tradition of excellence in quantum research.

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