

QUANTUM EUROPE STRATEGY

July 2025

Harnessing the laws of physics, quantum technologies will revolutionise how we solve complex challenges relating to health, energy, logistics and finance.

The Quantum Europe Strategy aims to make Europe a global leader in quantum by 2030.

EUROPE'S STRENGTHS



Scientific leadership:
Nobel prize level of expertise.



€ 11 billion invested:
By EU and Member States
in the last 5 years.



Vibrant ecosystem:
Thriving quantum
startups and SMEs.

MAIN GOALS



To turn scientific discoveries
into market-ready applications.

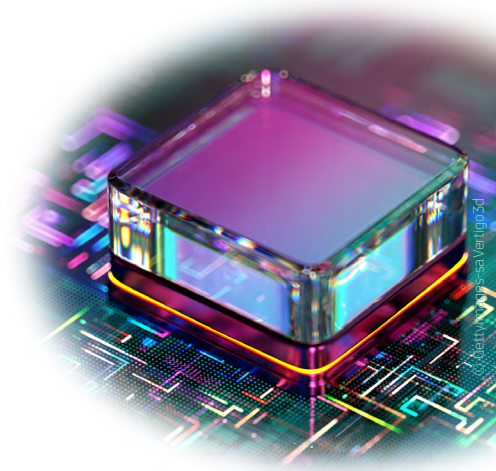
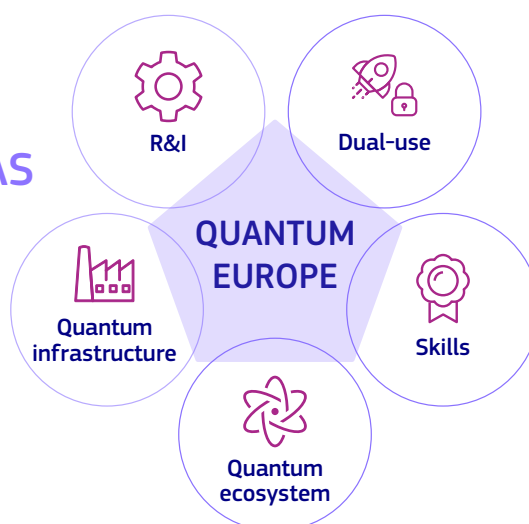


To enhance Europe's security
and tech sovereignty.



To maintain Europe's
scientific leadership.

FIVE TARGETED AREAS



1. RESEARCH AND INNOVATION



Discover

Support foundational research and technology.



From lab to fab

Invest in infrastructure, technologies, and workforce.



Apply and use

Develop applications for key public and industrial sectors.

2. QUANTUM INFRASTRUCTURE

Europe will expand public investments in:



Quantum computing and simulation – for problem-solving

- Invest in quantum simulators;
- Expand EuroHPC quantum computing capacity.



Quantum communications – for secure data transfers

- Deploy EU's first experimental terrestrial-space secure network;
- Launch a pilot facility for the European Quantum Internet.



Quantum sensing – for ultra-precise measurements

- Deploy a distributed system of gravimeters across Europe;
- Create a pilot infrastructure for quantum MRI to improve health checks across Europe.

3. QUANTUM ECOSYSTEM



Move to industrialisation



Scale up the European quantum ecosystem



Strengthen the supply chain security

4. SPACE AND DUAL USE



Invest in quantum clocks, sensors and secure links for Galileo and IRIS²



Launch initiatives for defence applications



Develop Quantum Sensing Space and Defence Technology Roadmap

5. QUANTUM SKILLS

Address skills shortage, attract and retain talent.



European Quantum Skills Academy



European Advanced Digital Skills Competitions in quantum



European Quantum Talent Mobility Programme