

## **EuroQCI: A quantum communication infrastructure for Europe's digital decade**

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### **Abstract**

The EuroQCI will be a secure quantum communication infrastructure spanning the entire European Union, including its overseas territories. The European Commission works with all 27 EU Member States and the European Space Agency to design, develop and deploy the EuroQCI. This includes a terrestrial segment relying on fibre communications networks linking strategic sites at national and cross-border level and a space segment based on satellites. This quantum communications infrastructure will be an integral part of IRIS<sup>2</sup>, the new EU space-based secure communication system. The EuroQCI will safeguard sensitive data and critical infrastructures by integrating quantum-based systems into existing communication infrastructures, providing an additional security layer based on quantum physics. It will reinforce the protection of Europe's governmental institutions, their data centres, hospitals, energy grids, and more, becoming one of the main pillars of the EU's Cybersecurity Strategy for the coming decades.