CENTRE FOR QUANTUM POLICY
PORTUGUESE QUANTUM INSTITUTE

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The EU Quantum Act: From Scientific Excellence to Quantum Leadership

Following the Quantum Europe Declaration, the Quantum Europe Strategy of 2 July 2025 (COM(2025) 363) and a call for evidence that drew 216 contributions, the European Commission presented its proposal for a Quantum Act today. This Regulation intended to turn the ambition of making Europe a global quantum leader by 2030 into coordinated European action.

The proposal comes at a critical moment. After more than a decade of investment in research and development, the challenge is clear: how to turn Europe's scientific excellence into industrial capacity, market deployment and technological sovereignty.

The Act is not primarily a risk-based framework but an enabling, industrial policy instrument. It does not create a new funding programme, building instead on existing ones. It does, however, introduce targeted binding measures: Member States would have to align their national quantum strategies with a new Quantum Europe Framework Initiative, public procurement of quantum technologies would be restricted to Union-controlled entities or partners under reciprocal agreements, and procurement in the second Network and Information Security Directive (NIS2) critical sectors would be limited to post-quantum cryptography-ready products, subject to limited derogations.

What does the Quantum Act bring?

At its core, the Act introduces a more coordinated European framework for developing quantum capabilities and scaling their deployment. Its main areas of intervention include:

- **A stronger European governance and coordination framework**

  The Act seeks to reduce fragmentation between national and EU initiatives and create stronger coordination across the European quantum ecosystem, involving Member States, research organisations, industry, public authorities and end users.

- **A greater focus on industrialisation and scale-up**

  The Act moves beyond research excellence towards industrial production and commercial deployment, strengthening European manufacturing capabilities, supporting strategic quantum projects and improving access to testing and development infrastructures.

- **Creating demand for European quantum technologies**

  Recognising that supply-side investment alone will not create a competitive industry, the Act promotes market uptake through public procurement, testing environments and closer interaction between technology developers and potential users.

- **Mobilising public and private investment**

  The Act seeks to improve financing conditions for European quantum companies and projects, addressing the gap between technological development and commercial scale and complementing sustained public investment with greater private-sector participation.

- **Strengthening security, resilience and technological sovereignty**

  Quantum is treated as both an economic opportunity and a strategic capability. The Act addresses supply-chain dependencies and vulnerabilities and supports the transition towards post-quantum cryptography.

- **Skills and quantum capabilities across Europe**

  Developing and retaining specialised talent, connecting national ecosystems and broadening access to infrastructures and expertise are central to building a sustainable European quantum ecosystem.

From Brussels to the Quantum Act

These priorities closely reflect the discussion convened in Brussels on 25 June 2026 by the **Centre for Quantum Policy of the Portuguese Quantum Institute (PQI)** on *Security, Sovereignty, and Competitiveness in Quantum Technologies*. Bringing together more than 50 participants from EU institutions, Member States, industry, academia, law enforcement, defence, and policy, the discussion highlighted the need for a distinctly European quantum strategy, stronger coordination and shared capabilities, credible European markets and greater private-sector participation.

A central conclusion was that the Quantum Act should be "an enabling instrument for growth, cohesion, and competitiveness", rather than replicate predominantly risk-based approaches developed for other emerging technologies. The discussion also stressed the strategic implications of quantum technologies for security, defence and law enforcement, as well as the importance of ensuring that quantum development contributes to the protection of democracy, freedom and human rights for

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The real test now moves from ambition to implementation.

Europe's challenge is to ensure that technologies developed in Europe can be financed, scaled, deployed and used in Europe.

The Quantum Act can provide the framework. Whether it translates into European quantum leadership will depend on what comes next.

Further information:

- Commission proposes Quantum Act and new Sovereign Tech Equity Fund to strengthen Europe's industrial capacity and security | Shaping Europe's digital future
- Security, Sovereignty, and Competitiveness in Quantum Technologies, Centre for Quantum Policy, 25 June 2026, Brussels

About the Centre for Quantum Policy

PQI – Portuguese Quantum Institute develops research, innovation, policy, education, and outreach in Quantum Technologies, in the context of European and international collaborations, supporting to the development and responsible adoption of quantum technologies. The Centre for Quantum Policy investigates the security, sovereignty, economic, diplomatic, educational, and societal dimensions of quantum technologies, as well as solutions to address the quantum divide.

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