BSA SUBMISSION ON THE EU QUANTUM ACT

Response to the European Commission's Call for Evidence

11 December 2025

BSA is the global trade association of the enterprise software industry, representing companies[1] that are leaders in artificial intelligence, cybersecurity, cloud computing, and other cutting-edge and breakthrough technologies, including quantum computing. We work in over 20 markets in the US, Europe, and Asia, advocating for policies that build trust in technology so that every industry sector and the public can benefit from innovation.

Quantum technologies, including quantum computing, stand poised to revolutionize various sectors due to their extraordinary capabilities. Governments that plan now, and think strategically, will be best positioned to capture the benefits for all domestic industries that stand to advance the most from quantum computing.

BSA welcomes the European Commission's recognition that fragmentation, limited coordination, and supply-chain vulnerabilities threaten Europe's ability to compete globally in this critical technology domain. To ensure Europe's success, the EU Quantum Act should build on future-oriented means to strengthen Europe's scientific excellence, innovation and industrial capacity, and global competitiveness without resorting to restrictive or protectionist measures.

BSA's submission is guided by three core principles essential to building a successful and sustainable EU Quantum framework:

- **Coherence and Coordination of EU Quantum Objectives** – establishing a unified, efficient policy approach that aligns EU and national efforts to maximize impact and accelerate progress.
- **Enabling Investment, Industrial Capacity, and Skills** – strengthening the financial, collaborative, and human capital foundations needed to drive innovation and scale Europe's quantum industry.
- **Building Resilient Supply Chains through Openness and International Collaboration** – advancing trusted global partnerships and interoperability while reinforcing Europe's strategic leadership and competitiveness.

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[1] *BSA's members include: Adobe, Akamai, Alteryx, Amadeus, Asana, Atlassian, Autodesk, Avalara, Bentley Systems, Box, Cisco, Cloudflare, Cohere, Cohesity, Dassault Systemes, Databricks, Docusign, Dropbox, Elastic, EY, Graphisoft, HubSpot, IBM, Informatica, Kyndryl, MathWorks, Microsoft, Notion, Okta, OpenAI, Oracle, PagerDuty, Palo Alto Networks, PTC, Rubrik, Salesforce, SAP, ServiceNow, Shopify Inc., Siemens Industry Software Inc., Trend Micro, TriNet, Veeam, Workday, Zendesk, and Zoom Communications Inc.*

1. Coherence and Coordination of EU Quantum Objectives

A coherent and well-coordinated approach is essential for Europe to translate its excellence in quantum research into industrial innovation and global competitiveness. To achieve this, the EU should prioritise alignment and collaboration between Member States, industry, and research communities under a shared strategic vision. Effective coordination will help channel resources efficiently, accelerate commercialization, and give businesses the confidence to invest and innovate in Europe.

Should an EU Quantum Act be introduced, it should serve as an enabling framework – focusing on coherence, strategic alignment, and industry partnership rather than detailed regulation. A flexible, innovation-friendly approach will be key to ensuring that quantum technologies can mature, scale, and deliver tangible economic and societal benefits for Europe.

Therefore, BSA recommends the following practical recommendations to the EU policy makers:

- **Establish a robust governance and monitoring mechanism to ensure coherent implementation of the EU Quantum Strategy and quantum objectives.** This should include measurable targets, define clear roles and timelines, and apply transparent performance indicators. Regular reviews should identify gaps, overlaps, and ensure that national strategies and funding instruments complement the EU framework. A dedicated **EU Quantum Coordinator**, empowered to operate across economic, scientific, trade, and technology policies, could oversee implementation and maintain strategic consistency across all EU actions.
- **Maintain a flexible, innovation-friendly regulatory approach.** The future framework should avoid overly prescriptive or premature rules that could hinder emerging technologies. Legislation should build on existing horizontal principles until the quantum ecosystem reaches greater maturity.
- **Accelerate the transition to Post-Quantum Cryptography (PQC).** Building on the Coordinated Implementation Roadmap for PQC, BSA recommends integrating AI tools to automate migration, forming public–private partnerships to leverage industry expertise, ensuring interoperability with international standards, and issuing guidance on supply-chain dependencies. Adequate funding and workforce development will be essential for timely and effective implementation.

2. Enabling Investment, Industrial Capacity, and Skills

A thriving quantum ecosystem requires more than scientific excellence – it depends on strategic investment, collaboration, and skilled talent. To turn Europe's research strength into industrial and economic leadership, the EU must accelerate the deployment and commercialization of quantum technologies. This means shifting focus from purely foundational research toward developing software, applications, and integration tools that enable real-world use cases, while fostering partnerships among academia, startups, and industry. At the same time, building a quantum-ready workforce and supporting sectoral adoption will be essential to ensure Europe's quantum ecosystem can scale, innovate, and compete globally.

Therefore, BSA recommends the following practical recommendations to the EU policy makers:

- **Prioritize Investment in Deployment and Quantum Software Development.** While development and research remain very important, government funding has traditionally concentrated on early-stage science. To accelerate Europe's quantum leadership, it is now time to shift emphasis toward deployment – supporting the development of software, algorithms, and integration tools that make quantum infrastructure operational and interoperable. By investing in these enabling layers, the EU can bridge the gap between research and application, unlock new industrial use cases, and ensure that Europe's quantum investments deliver tangible economic and societal impact.
- **Support Government and Industry Adoption of Market-Ready Quantum Solutions.** To translate quantum innovation into broad economic value, the EU should help businesses adopt and scale market-ready quantum technologies. This includes fostering collaboration among startups, university labs, testbeds, and established enterprises – within and beyond Europe, not excluding global innovators – to pilot, validate, and integrate quantum solutions into key sectors. The EU should prioritize partnerships and incentives that lower adoption barriers, build user confidence, and accelerate the uptake of secure and innovative quantum applications across the European economy.
- **Promote sector-specific initiatives to drive quantum adoption in key industries.** Building on the EU Quantum Strategy, the EU should identify sectors with the highest potential for quantum impact – such as finance, materials science, healthcare, logistics, energy, and cybersecurity – and implement targeted measures to accelerate adoption. These should include regulatory adjustments, infrastructure upgrades, and workforce training to ensure each sector is ready to integrate quantum technologies effectively.
- **Workforce Preparation and Development.** Implement targeted workforce training and education programs to equip current and future professionals with necessary quantum technology skills. Encourage academic partnerships, professional certifications, and training initiatives across member states to build a resilient and competent quantum-ready workforce. The workforce preparation and development programs should include not only hardware development, but software and algorithm development and implementation.

3. Building Resilient Chains through Openness and International Collaboration

Securing resilient and trusted supply chains is essential for Europe's success in quantum technologies. But resilience should not mean exclusivity or isolation. True strategic autonomy will come from diversity, openness, and trusted international cooperation, not from policies that exclude non-European providers or restrict participation in global value chains. **Any 'buy European' clauses or 'Made in Europe' criteria should be designed to incentivize quality investments without discriminating against companies or limiting flexibility.**

Europe's quantum ecosystem depends on reliable access to critical components – such as semiconductors, photonics, cryogenic systems, and specialized software – supported by transparent standards, interoperability, and collaboration with like-minded partners worldwide. Global cooperation strengthens, rather than weakens Europe's ability to act with confidence and independence.

By embedding openness at the core of its approach to supply chain resilience, the EU can safeguard essential technologies, promote innovation, and uphold its values of trust, transparency, and fair competition. This balanced approach will allow Europe to lead by example – achieving sovereignty through partnership, not isolation – and to reinforce its position as a trusted, competitive, and globally connected hub for quantum innovation.

Therefore, BSA recommends the following practical recommendations to the EU policy makers:

- **Promote resilient, open, and trusted quantum supply chains.** Europe's quantum leadership depends on secure, diversified, and globally connected supply chains. The EU should strengthen resilience by identifying and supporting critical components – such as semiconductors, photonics, cryogenic systems, and specialized software – through targeted investment in industrial capacity and cooperation with trusted international partners. Building resilience through *diversity, openness, and interoperability* – without excluding global quantum leaders – will ensure secure access to key technologies while boosting Europe's competitiveness and strategic autonomy.
- **Pursue openness as a foundation of resilience.** True digital and technological sovereignty cannot be achieved in isolation. Europe's success will depend on active participation in global value chains and collaboration with partners who uphold high standards of security, transparency, and reliability. The EU should promote *open yet secure* policies that balance technological sovereignty with global interoperability, allowing industry to innovate, scale, and compete in an interconnected quantum economy.
- **Foster international partnerships for research, innovation, and standards.** The Quantum Act should reinforce structured collaboration with trusted global partners, following successful models such as those with Japan and Korea. Joint initiatives should promote research cooperation, mutual recognition of standards, and transparent supply chain practices. Such partnerships will strengthen Europe's resilience, accelerate innovation, and ensure that openness and trust underpin the global quantum ecosystem.
- **Lead globally through value-driven quantum governance.** The EU should play an active and coordinated role in international quantum policy and standardization forums. By championing openness, interoperability, and responsible technology use, Europe can shape global rules and norms consistent with its values. Through leadership built on cooperation and trust, the EU can advance scientific excellence while reinforcing global confidence in its quantum ecosystem.

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