



QuIC Response to the Call for Evidence on the Single Basic Act for Joint Undertakings

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Executive Summary

The European Quantum Industry Consortium welcomes the European Commission's initiative to prepare a new Single Basic Act for Joint Undertakings under the next Multiannual Financial Framework. QuIC supports the objectives of simplifying the institutional landscape, improving strategic alignment, strengthening links between research, innovation and deployment, increasing accessibility for SMEs and scale-ups, and enabling stronger synergies across strategic technologies.

Quantum technologies require coherent European governance and fit-for-purpose funding instruments. Europe is entering a phase in which quantum policy must move beyond collaborative R&I projects and support higher-TRL development, industrial infrastructure, testing, standardisation, certification, procurement, grants, innovation partnerships and market uptake. The institutional architecture chosen for 2028-2034 must therefore preserve sufficient flexibility to create and adapt instruments suited to deep-tech industrialisation.

QuIC's preferred option remains the establishment of a dedicated EuroQuantum instrument, ideally a EuroQuantum Joint Undertaking, covering quantum computing and simulation, communication and security, sensing and metrology, enabling technologies, software, pilot lines/fab for quantum chips, supply chains, infrastructure, standards and industrial uptake.

QuIC also recognises that the Commission may wish to avoid creating additional stand-alone JU structures. For this reason, the impact assessment should examine whether the flexibility associated with the EuroHPC precedent could be preserved for quantum industrialisation, including through an adapted strategic infrastructure instrument at the convergence of HPC, AI and quantum, provided that quantum is not reduced to a computing sub-area. Such an option would only be acceptable if quantum is treated as a dedicated pillar with its own governance, budgetary visibility, work programme and industry representation, and if it covers the full quantum technology stack beyond computing alone. A narrow integration of quantum computing into an HPC-centred structure would not address the needs of the European quantum industry.

At the same time, QuIC recognises the Commission's objective to reduce administrative duplication across JUs. QuIC therefore recommends distinguishing clearly between administrative mutualisation and strategic governance. Legal, accounting, HR, procurement & grant management, IT, audit, security and other back-office functions may be mutualised where this increases efficiency and where they are adequately staffed. However, quantum technologies require dedicated governance, a ring-fenced budget, a quantum-specific work programme, direct industry involvement, and a clear strategic mandate.

This approach would combine the benefits of simplification with the coherence, speed and flexibility needed to translate Europe's quantum research excellence into industrial capacity, competitiveness, resilience and global leadership.

1. Introduction

QuIC welcomes the opportunity to respond to the Call for Evidence on the Single Basic Act for Joint Undertakings. As the European association representing the quantum industry ecosystem, QuIC's response focuses on the institutional treatment of quantum technologies in the future European Partnerships landscape.

The next MFF will be decisive for Europe's ability to move from quantum research leadership to industrial scale. Quantum technologies are now entering a phase in which research, engineering, industrialisation, infrastructure, supply chains, pilot lines/fab for quantum chips, standards, investment, procurement and grants must be coordinated more tightly. The institutional architecture chosen under the SBA will therefore have direct consequences for Europe's competitiveness, resilience, strategic autonomy and leadership in quantum technologies.

Europe also faces growing international competition in quantum technologies. The recent U.S. Executive Order on quantum innovation [1], which aims to deliver, by 2028, at least one scientifically useful quantum computer to a Department of Energy facility, illustrates how major international competitors are moving toward mission-driven deployment, public infrastructure and strategic use cases. The future European framework must therefore be capable of mobilising fast and impactful action, with sufficient critical mass to maintain Europe's relevance in a global race for industrial capability, talent, infrastructure and supply-chain control.

QuIC supports the Commission's objective to streamline governance and avoid unnecessary duplication across JUs. However, simplification should strengthen Europe's strategic capacity. It should not lead to the fragmentation of quantum technologies across unrelated verticals or reduce quantum to an application area within broader digital programmes.

IMPORTANT NOTES

(1) <https://www.whitehouse.gov/presidential-actions/2026/06/ushering-in-the-next-frontier-of-quantum-innovation/>

2. Quantum as a strategic technology domain

Quantum technologies form a coherent strategic technology domain. Quantum computing, communication, sensing, metrology and enabling technologies are distinct in their applications, but they share scientific foundations, industrial bottlenecks, enabling components, specialised infrastructure, talent pools, standards and industrialisation needs, and supply-chain vulnerabilities. Synergies will be realised when treating all quantum technologies together, inefficiencies will result when dividing them into different organisations.

The development of quantum technologies depends on a full stack of capabilities, including materials, photonics, cryogenics,

vacuum technologies, lasers, chips, control electronics, fabrication, packaging, software, middleware, benchmarking, standards, certification, metrology and system integration. These capabilities cut across individual application areas and cannot be effectively supported if quantum is divided between separate institutional structures.

Europe therefore needs a governance framework able to address the quantum value chain as a whole, while maintaining strong operational links with adjacent instruments such as EuroHPC JU, Chips JU, cybersecurity programmes, space and defence initiatives, EuroQCI, and the future European Competitiveness Fund.

3. Preferred option: a dedicated EuroQuantum Joint Undertaking

QuIC recommends the establishment of a dedicated EuroQuantum Joint Undertaking.

A dedicated EuroQuantum JU is the clearest institutional option to give Europe the strategic coherence, visibility and critical mass required for quantum industrialisation. It would provide a single framework across all quantum pillars, from research to industrial deployment, including quantum computing and simulation, communication and security, sensing and metrology, enabling technologies, software, supply chains, infrastructure, standards, skills, industrial uptake, and pilot lines/fab for quantum chips.

However, QuIC stresses that the effectiveness of such a JU will depend on its ability to act with sufficient speed and flexibility. Quantum technologies are evolving rapidly, and Europe will need instruments that can be adapted as technology roadmaps, industrial bottlenecks and deployment needs evolve. This includes the ability to design fit-for-purpose grant schemes, procurement-linked instruments, innovation partnerships, milestone-based programmes, pilot-

line access mechanisms, market-driven standardisation schemes, testing and certification schemes, and deployment-oriented funding.

For this reason, QuIC recommends that the impact assessment examine whether a dedicated EuroQuantum JU should be established outside the SBA, following the precedent of EuroHPC JU. While the SBA may bring benefits in terms of harmonisation and administrative consistency, it also risks limiting the agility needed for quantum industrialisation if it imposes overly uniform procedures, slow work-programme adaptation, insufficient flexibility in funding instruments, or constraints on procurement and innovation partnership models.

A dedicated EuroQuantum JU should therefore have sufficient strategic, budgetary and operational autonomy to mobilise fast and impactful action. Administrative services may be mutualised where this improves efficiency, but the legal and governance framework should preserve the ability to create quantum-specific instruments at the speed required by international competition.

4. Administrative simplification through shared services

QuIC recognises that the creation of additional JUs can raise concerns about administrative costs and duplication. These concerns are legitimate and should be addressed directly in the design of the next SBA.

QuIC recommends that the Commission considers a shared services model for administrative functions across JUs. Legal, accounting, HR, procurement, grants, IT, audit, security and other administrative services could be mutualised where this improves efficiency and reduces cost.

This mutualisation should be supported by adequate staffing and operational capacity. Shared services that are under-resourced would create delays and reduce the speed that strategic technologies require.

This should not affect the strategic governance of quantum technologies. Administrative simplification should not require quantum priorities to be diluted into a broad digital structure or distributed across several unrelated verticals.

The distinction is essential. Europe can mutualise back-office functions while preserving dedicated quantum governance, budgetary visibility, work programme ownership and industry representation.

5. Assessment of alternative institutional models

QuIC recognises that several institutional models may be considered under the SBA. The following principles should guide the assessment of these options.

5.1 Maintaining the current framework would not be sufficient

Maintaining the current framework would not address the fragmentation, speed and scale-up challenges facing Europe's quantum ecosystem. The next phase of quantum development requires stronger coordination across Member States, industry, research organisations, infrastructure providers and deployment instruments.

The current framework has already shown important limitations. Quantum calls managed through existing structures can be slow to open and evaluate, reducing Europe's ability to respond to fast-moving technological and industrial developments. Budgetary choices affecting quantum priorities can also be made within broader digital programmes where quantum does not have sufficient strategic ownership or visibility.

At the same time, other JUs and EU instruments are increasingly opening calls that include quantum-related topics. This can create useful opportunities, but without a dedicated quantum governance framework it also increases the risk of duplication, gaps, inconsistent priorities and weak coordination across the portfolio.

For these reasons, the current landscape does not provide the critical mass, speed, budgetary clarity or coherent governance required to support the full quantum value chain from research to industrial deployment.

5.2 A broad digital JU could only work with strong safeguards

A broader digital JU with a dedicated quantum branch carries major risks, unless they are mitigated with a clearly ring-fenced governance structure, budget, work programme and industry-led advisory process.

Without these safeguards, quantum risks becoming a secondary sub-programme inside a much broader digital agenda. This would reduce visibility for companies and investors, weaken strategic programming, and make it harder to coordinate Member State and EU investments.

This risk is particularly acute for quantum sensing, communication, metrology and enabling technologies, which could be left outside the centre of gravity of a digital-driven JU focused primarily on computing infrastructure, AI, data or cybersecurity.

If this option is pursued, QuIC recommends that the SBA create a dedicated quantum pillar with governance and budgetary autonomy equivalent in practice to a dedicated JU. Because a broad digital JU would likely sit inside the SBA, the impact assessment should also examine whether this model would provide sufficient flexibility for quantum-specific instruments, including procurement, innovation partnerships, milestone-based programmes and deployment-oriented funding.

Such a structure would also need adequate staffing in support departments, including grants, procurement, legal, security, IT and audit, to avoid replacing institutional fragmentation with operational bottlenecks.

5.3 Splitting quantum across several verticals should be avoided

QuIC strongly cautions against distributing quantum technologies across separate structures for sensors, communications, chips and computing.

Such a model would recreate the fragmentation the SBA is intended to reduce. It would separate technologies that rely on common enabling components, infrastructure, standards, supply chains and talent. It would also leave cross-cutting areas without a clear institutional home, including cryogenics, lasers, photonics, control electronics, packaging, metrology, benchmarking, middleware, software layers, certification and supply-chain resilience.

Quantum computing deployment should be closely coordinated with EuroHPC JU. Quantum fabrication, pilot lines/fab for quantum chips and enabling hardware should be closely coordinated with Chips JU. Quantum communication should be linked to EuroQCI and cybersecurity instruments. Quantum sensing should connect with space, defence, health, energy, transport and industrial applications.

These links should be organised through co-programming, joint calls and formal coordination mechanisms, not by fragmenting quantum governance.

6. Governance requirements for a coherent quantum framework

Whether established as a dedicated EuroQuantum JU or as a dedicated quantum pillar within a broader institutional structure, the quantum framework should include the following governance features:

- A dedicated quantum governing or programme board.
- Direct representation of industry, including SMEs and scale-ups.
- Structured involvement of Member States.
- A quantum-specific Strategic Research and Innovation Agenda.
- A ring-fenced quantum work programme and budget.

- A mechanism for agile work programme updates and agile instrument design.
- A formal interface with adjacent JUs and EU programmes.
- Clear links to ECF instruments, procurement and grant tools, and deployment, and industrialisation programmes.

QuIC also recommends the creation of a cross-JU coordination mechanism for critical technologies, including dual-use technologies. This mechanism should connect the quantum framework with EuroHPC JU, Chips JU, relevant cybersecurity, space, defence, materials and critical raw materials initiatives. Its purpose should be to coordinate programming, avoid duplication, identify shared bottlenecks and support cross-cutting industrial capabilities.

7. Funding and industrial scale-up

The future quantum framework must have sufficient critical mass to support Europe's industrial ambitions. Governance without adequate funding will not address the scale-up challenge.

QuIC recommends a balanced funding model combining[R:

- EU-level funding to avoid fragmentation across Member States.
- Mechanisms enabling EU companies with activities in several Member States to access national co-funding schemes in a clear, predictable and non-fragmented way.
- Co-funded instruments[RH2.1] for higher TRL with Member States where this creates scale, alignment and agility.
- Fully EU-funded instruments for lower TRL[RH3.1], notably grants, where needed to ensure cohesion and access for companies from less-resourced Member States.
- Low- to higher-TRL calls supporting prototypes, pilots, testing, integration, certification and deployment, with modularity in co-financing rates[RH4.1][CP4.2].

- Milestone-based programmes for strategic industrial capabilities.
- Procurement-linked instruments with IP rules that support industry growth to create early market demand.[RH5.1]
- Support for shared infrastructure such as pilot lines/fab for quantum chips, testbeds, metrology facilities, packaging capacity, standards, cryogenic infrastructure and benchmarking platforms.
- Innovation partnerships and other flexible instruments adapted to deep-tech industrialisation timelines.

The future quantum framework should support the whole innovation-to-investment journey, from frontier research to industrial deployment and mass production. It should also connect directly with ECF tools so that successful R&I outcomes can move toward scale-up financing, grants, procurement and market uptake.

8. Accessibility for SMEs and scale-ups

The SBA should improve access for SMEs and scale-ups. This is particularly important in quantum, where many critical capabilities are held by young companies with limited administrative capacity.

QuIC recommends that the future quantum framework include:

- Simpler application and reporting procedures.
- Shorter time-to-grant and time-to-payment.
- Once-only, lighter and faster ownership, security and control assessments.
- Clear guidance on eligibility and participation rules.
- Dedicated funding tracks for SMEs and scale-ups.
- Funding instruments adapted to deep-tech timelines.
- Grant calls and procurement contracts that allow companies to retain full ownership and enable exploitation of IP.
- A single entry point for quantum companies navigating EU instruments.
- Simplified procurement and grant procedures for small-value contracts and agreements recognizing that smaller companies do not always have the administrative resources to handle onerous processes

Administrative simplification should be measured not only at the level of EU institutions, but also from the perspective of participating companies.

9. Synergies with adjacent JUs and deployment instruments

Quantum technologies will increasingly connect with other strategic technology domains. A dedicated quantum framework should therefore be designed for structured cooperation with adjacent instruments.

QuIC recommends:

- Joint programming with EuroHPC JU for quantum-HPC infrastructure integration, cloud access, benchmarking, hybrid workflows and user access.
- Coordination with Chips JU for fabrication, pilot lines/fab for quantum chips, packaging, materials, enabling technologies, process development and advanced electronics.
- Coordination with EuroQCI and cybersecurity instruments for quantum communication and security.
- Links with space, defence, energy, transport, health and industrial programmes for quantum dual-use computing and sensing technologies and deployment.
- Alignment with ECF windows to support investment, scale-up and market uptake.
- Shared standardisation and certification activities with the relevant JUs and initiatives, notably EuroHPC JU, Chips JU and EuroQCI and CEN/CENELEC JTC-22.

The objective should be consistency across Europe's strategic technology portfolio, while keeping quantum governed as a coherent domain.

10. Contribution to the objectives of the Single Basic Act

QuIC's proposed approach supports the Commission's objectives for the future SBA.

It supports strategic alignment by giving quantum technologies a clear EU-level governance framework.

It supports higher-TRL deployment by linking R&I with pilot lines/fab for quantum chips, infrastructure, standards, certification, procurement, grants and ECF instruments.

It supports private investment by creating predictable mid-term programming and clearer market signals.

It supports accessibility by creating a visible entry point and simpler procedures for SMEs and scale-ups.

It supports synergies by establishing formal cooperation with EuroHPC JU, Chips JU and other adjacent entities at European and national levels.

It supports simplification by allowing administrative services to be mutualised while preserving dedicated strategic governance.

This model would therefore help the Commission streamline the JU landscape without weakening Europe's ability to act quickly in a strategic technology domain.

11. Risks to avoid

QuIC's proposed approach supports the Commission's objectives for the future SBA.

- Fragmenting quantum technologies across separate verticals.
- Treating quantum only as an extension of HPC or semiconductors.
- Treating quantum only as a communication or cybersecurity topic.
- Leaving enabling technologies without a clear institutional home.
- Creating a broad digital structure in which quantum lacks budgetary visibility.
- Reducing industry's role in programming and prioritisation.
- Designing procedures that are too slow or complex for SMEs and scale-ups.
- Disconnecting R&I funding from deployment, procurement, grant and investment tools.
- Using administrative simplification in a way that leads to strategic dilution.
- Having to defend the quantum budget throughout the next MFF period.

12. Conclusion

QuIC supports the Commission's ambition to modernise the JU landscape for the next MFF. For quantum technologies, the priority should be to combine simplification with strategic coherence, speed and operational flexibility.

QuIC recommends the establishment of a dedicated EuroQuantum instrument, ideally a EuroQuantum Joint Undertaking. The impact assessment should examine whether this instrument requires a degree of flexibility comparable to the EuroHPC precedent, in particular for procurement, innovation partnerships and deployment-oriented funding.

If the Commission chooses a broader institutional architecture, QuIC recommends at minimum a dedicated quantum pillar with ring-fenced governance, budget, programming, industry representation and explicit flexibility to create quantum-specific instruments (see Sect. 6).

Administrative services may be mutualised where this improves efficiency. Quantum strategy should remain coherent, visible and dedicated.

The next framework is an opportunity to give Europe the institutional capacity needed to move from quantum research leadership to industrial capacity at scale. The design choice made now will shape Europe's ability to mobilise fast and impactful action, build competitive quantum companies, secure resilient supply chains, deploy strategic infrastructure and maintain global leadership in the 2028-2034 period.

About QuIC and Contributors

The **European Quantum Industry Consortium (QuIC)** is a non-profit pan-European association founded in 2021 that represents the quantum technology industry. QuIC's mission is to **boost Europe's competitiveness in quantum technologies** by uniting stakeholders across the ecosystem – including startups and SMEs, large tech companies, investors, academic institutions, and RTOs. Acting as “the voice” of the European quantum industry, QuIC collaborates closely with EU institutions and national initiatives to shape strategic directions, address common challenges (such as standardization, IP, and workforce development), and accelerate the commercialization of quantum research. QuIC is part of the EU's Quantum Flagship program, ensuring industry input feeds into Europe's quantum R&D efforts.

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