QuIC's Consolidated recommendations on Scaling the European Quantum Industry

POLICY BRIEF

How European companies reach competitive size and stay European

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What scaling means, and where Europe stands

Europe built a quantum industry. It hosts around a third of the world's quantum companies, some three hundred of them, and supplies close to half of the quantum hardware and software components used worldwide. Its research base is first-rate and its enabling-technology companies lead their global markets commercially. That was the work of the last decade, and it worked.

Scaling is the next phase. Those companies now have to reach the size at which they compete globally for customers, talent and capital, and control has to stay in Europe when they do. How to get there has been put, in the sector and in discussion with the Commission, as a question of consolidation: whether the companies should combine into a smaller number of larger ones.

Consolidation is a term from mature industries, and this one is not mature. It describes what happens after the technology and the market have settled and firms combine to take out capacity. Many quantum technologies and many companies are pursuing genuinely different approaches and none has been settled by the market. Acquisitions are not consolidation either: they have many motives, and counting them is a poor measure of industrial health.

Scaling here means something narrower than combination. Fewer companies is not the objective. Bigger ones are.

Europe's quantum companies need a customer and a capital market. Those are what produce companies at competitive size. Combination follows from size rather than producing it, and control stays in Europe when the capital that funds the growth is European.

Europe's quantum industry does not have a corporate-structure problem. It has a demand problem and a capital-depth problem. Companies that reach commercial standing already buy other companies, without being designated and without a special public financing scheme: Rohde & Schwarz acquired Zurich Instruments, Bluefors acquired Cryomech, TOPTICA acquired ALS, and in sensing iXblue acquired Muquans, merged with ECA to form Exail, and then acquired Leukos. Acquisitions follow revenue, and they happen in the pillars that earn. The flow runs outward too, and heaviest in enabling technologies: Hamamatsu of Japan took NKT Photonics of Denmark, and Quantum Design of the United States took both the NanoScience division of Oxford Instruments and Qnami of Switzerland. That is the pillar where Europe leads commercially.

Demand and capital are what the Quantum Act can supply. Fabrication capability belongs to the semiconductor file. What no instrument supplies is execution: Northvolt had customers, order books and public backing at scale, and failed on manufacturing yield and the pace of its ramp. Scale was reached and capability was not. Support should therefore be released against demonstrated milestones rather than committed in advance to a chosen company.

What stands in the way

The public buyer is too small and too national

European public buyers already procure quantum systems. EuroHPC has bought six quantum computers and co-funded two simulators, all from European suppliers. France commits €500 million through PROQCIMA, a staged competition between five companies. Finland co-created and operates two machines.

What is missing is scale and coordination. The EuroHPC machines cost €8 to €12 million each, a reference sale rather than a revenue base, and national programmes favour their own suppliers, so a company's addressable public market is its own country. Nothing at Union level does what American federal and defence procurement does, and China has moved on a different lever, opening its public markets to loss-making quantum companies through a listing standard that asks nothing about revenue. Private demand is immature: buyers want use cases rather than hardware, and fewer than one company in twenty has examined quantum seriously.

Capital is deep enough late and thin everywhere else

European public equity markets are less liquid and less well covered than American ones. IQM listed on Nasdaq in July 2026 and Pasqal in August, both raising their capital in New York.

At the late stage this is being addressed: the Scaleup Europe Fund launched in August 2026 with a €5,000 million target, investing €100 million or more into thirty to forty companies, quantum among them. Two gaps remain. One fund across eight sectors reaches few quantum companies, and its capital is anchored by public money. A deep market has private pools writing cheques at that size without a public anchor, and Europe does not have enough of them. Apart from that fund, no European public instrument is structured to lead a round: public equity generally requires a private lead to set the terms, so its availability depends on the thing European late-stage markets are short of.

Public instruments move at the wrong tempo

The EIC Accelerator takes four months from cut-off to published winners, and that is the grant alone; equity due diligence begins after the award decision, not before. EuroHPC signed two hosting agreements in December 2024; the Dutch tender closed in October 2025 with no vendor announced since, and the Luxembourg tender opened nineteen months after the agreement. Three quantum topics opened under Horizon Europe in January 2026, were suspended before their April deadline when a Council Regulation moved quantum to EuroHPC, and reopened under EuroHPC in June.

A company cannot plan around a decision that may arrive within a year. QuIC has recommended a dedicated EuroQuantum Joint Undertaking with the autonomy to act at the sector's speed.

Recommendation 1: Make the state the first customer

Public buyers should place staged, competitive, multi-vendor orders for European quantum systems, at a scale that registers in a company's accounts.

Owner: DG CNECT, with Member States. Cost: €7,700 to 12,300 million over five years.

Procurement is not a subsidy. A government that buys a quantum system receives the system: the capability enters public service and the money buys something the buyer needed. What the supplier receives alongside the payment is a revenue line and a reference customer, and those are what change its standing with private investors and lenders. A grant gives a company money and gives a lender nothing to price.

The instrument exists and should be scaled. PROQCIMA is a staged competition against published milestones run by a defence ministry; EuroHPC procures from European vendors; Finland co-created machines it operates. What they share is competitive multi-vendor selection against technical criteria. What they lack is size and a European framework above them. Germany's Commission of Experts for Research and Innovation and the French Cour des comptes both reached the same conclusion independently in 2026.

Four design points decide whether it works. Procurement must be staged and end in a purchase, because no quantum computer today runs an algorithm a buyer urgently needs; a pre-commercial phase terminating in nothing is research funding. Awards must be competitive against published benchmarks, because revenue won in a contested award evidences capability while allocated revenue evidences a relationship, and both look identical in the accounts. Each pillar must be reached through its own buyers. And intellectual property must stay with the supplier, including at spin-out formation, because procurement that transfers it builds a public asset while procurement that leaves it builds a company.

Procurement builds revenue and does not solve the equity gap, so it works alongside Recommendation 2 rather than in place of it. Two things make the money go further. Shared requirements and multi-country framework contracts aggregate demand without pushing any company into a transaction. And multi-year public payment obligations carry public credit risk, not technology risk, so allowing a company to pledge them as security turns demand into capital that costs the founders no ownership.

Revenue is the criterion an instrument will default to when selecting between applicants, and it is the wrong one on its own. It arrives at different moments in different pillars for reasons unrelated to prospects, and revenue won in a contested award evidences capability while revenue allocated administratively evidences a relationship. Criteria should be plural and published, with revenue weighted for how it was won and for the capital intensity of the layer that earned it.

A past case. Germany created demand for solar photovoltaics through a feed-in tariff and the demand arrived. The industry did not. The tariff paid whoever supplied, so the subsidy flowed to the cheapest producer, and German equipment makers sold them the production lines. Europe's strongest quantum position is in that same equipment layer. Procurement differs from a tariff in the one respect that matters: a buyer chooses a supplier and can attach conditions.

Recommendation 2: Deepen the capital base, and change how public money is governed

Deepen European capital markets, and govern public investment vehicles so that control sits in the mandate rather than in each transaction.

Owner: DG FISMA and DG ECFIN, with the EIB. Cost: no new money.

Whether the binding constraint is the supply of capital or the return available on it is a fair question, and the answer shapes the order: capital follows returns, returns follow customers, which is why demand comes first and this recommendation second. No transaction-level instrument repairs shallow capital markets. The Savings and Investments Union agenda is the first-order remedy and raises the acquisition capacity of every European technology company at once without selecting any of them.

Two measures are available immediately. Alternative Investment Fund Managers and European Long-Term Investment Funds are largely absent from late-stage European quantum, and the Commission should establish what prevents them from reaching it. Corporate venture arms of European industrial groups already invest in quantum but do not participate in scaling transactions.

The speed of a public investment vehicle is a function of governance, not of public ownership. A fund that keeps transaction-level sign-off with government will always be too slow. The Scaleup Europe Fund is built the other way: the Commission anchors it and sets the sectors, a privately owned manager selected in competition runs the investments, and decisions are not referred back. That structure should be the template rather than the exception.

Recommendation 3: Debt against contracted revenue

Lend against contracted public receivables, with terms differentiated by pillar and readiness.

Owner: European Investment Bank, with DG CNECT. Cost: €1,000 to 2,000 million over five years.

The European Investment Bank already operates venture debt covering quantum, released in stages with only the later stages conditioned on revenue. Debt finances a revenue ramp and does not substitute for equity.

Procurement-backed lending against contracted public receivables is the specific application, and it depends on the receivables being pledgeable as security, which is the point made under Recommendation 1. The four pillars sit at different readiness levels and carry different risk, and terms should reflect that rather than treating quantum as one asset class.

Recommendation 4: Reciprocity in purchasing and investment

Prefer European suppliers when purchasing, stay open to foreign capital, and be as open as counterparts are and no more.

Owner: DG TRADE, with DG GROW. Cost: none.

Europe should prefer European suppliers when it purchases, as every other major jurisdiction already does in its own public procurement, and remain open when it is invested in, because foreign capital and competitive exits sustain the rate of company formation that scaling depends on. Reciprocity makes those consistent.

The asymmetry currently runs the wrong way inside the Union. A non-European acquirer of a European quantum company faces mandatory screening in seven Member States, with triggers commonly as low as 10% of shares, and the number of transactions formally screened across the Union has nearly quadrupled since 2020. Two European companies combining face none of that, and are instead exposed to national merger

thresholds and call-in powers that differ between Member States. The Union has built a coherent regime for transactions from outside and left transactions inside the single market to twenty-seven separate systems.

Recommendation 5: Monitor the market

Track who is acquiring European quantum companies, rather than how many transactions take place.

Owner: DG COMP, with DG CNECT. Cost: none.

Engaging the merger guidelines review is not the right ask at this stage. The market is not developed, acquisitions are not the binding problem, and EU merger control does not reach transactions at this scale: its thresholds begin at €5,000 million of combined worldwide turnover, against European quantum revenues measured in single-digit millions, and no European quantum transaction has had Union dimension.

What is needed is monitoring of how ownership in the sector evolves, so the question of whether to intervene can be answered when it becomes live. The scenario to watch for is non-European acquirers treating Europe as a source of small, cheap, technically strong companies. Monitoring should track acquirer identity rather than transaction volume, because the published evidence finds that post-acquisition outcomes depend on who the acquirer is: serial acquirers in dominant positions are associated with declines in acquired-firm innovation, while occasional acquirers are not. The French Cour des comptes recommended the same at national level in July 2026.

This also resolves a contradiction in the sector's own position. Start-ups do not want a merger review that would slow their own transactions, and do want protection against acquisition from outside Europe. Those are only inconsistent if the instrument is a volume control.

What this paper does not ask for

Designation of champions. Concentrating support on a limited number of strong companies is right. Selecting them in advance is not. In a sector whose technology roadmaps are unsettled, the company that eventually leads a layer may not yet exist.

Merger activity as an objective. Transactions are an outcome of commercial strength, not a measure of policy success.

A quantum-specific screening regime. One already exists. The investment screening regulation adopted in June 2026 obliges every Member State to screen a minimum scope that names quantum technology, from January 2028.

A capability programme here. Fabrication capacity, pilot lines and process intellectual property are a manufacturing-policy question, and they belong with the semiconductor work rather than here. Quantum needs that capacity on the same timescale and with the same urgency as semiconductors do, and those working on semiconductor capacity should treat it as part of the same problem. A company that cannot manufacture at volume will not be rescued by demand or by capital.

Basis

This paper is published by QuIC. It was first drafted by **Enrique Lizaso, CEO of Multiverse Computing**, and revised by **Cécile M. Perrault, Executive Director of QuIC**.

It rests on a consultation of QuIC member companies, a call for evidence open to the whole community, and an expert workshop held on 18 September 2026 under the Chatham House Rule. One hundred and forty-eight comments were received and addressed. A position paper sets out the full argument, with its evidence and sources.

Contributing companies: **Alice & Bob, Bluefors, Bosch Ventures, Bull, Exail, Infineon, IQM, Pasqal, Qblox, QUBIZ, Quantonation and TOPTICA.**

Taking part in the expert workshop of 18 September 2026: **Bart van Ark** (The Productivity Institute), **Uwe Cantner** (University of Jena), **Chiara Criscuolo** (OECD), **Antoine Dechezleprêtre** (OECD), **Sampsa Samila** (IESE Business School) and **Reinhilde Veugelers** (KU Leuven and Bruegel). They took part in a personal capacity and in discussion only. They did not draft, review or comment on this text, and no view in it is attributed to any of them.

About QuIC

The European Quantum Industry Consortium (QuIC) is a non-profit industry association, founded in 2021, dedicated to the growth of the commercial QT sector. QuIC operates as a collaborative hub throughout Europe, bringing together hundreds of SMEs, large corporations, investors, RTOs, and academic institutions, to build a strong, vibrant ecosystem. Together, members of the association address topics of common interest, such as standardisation, intellectual property, trade, and workforce development. Today, QuIC is part of the coordination and support action of the Quantum Flagship – a European project, which aims to make Europe a dynamic and attractive region for innovative research, business, and investments in this field.

More information: www.euroquic.org

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