



The 28th Regime and Innovative Quantum Companies

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EXECUTIVE SUMMARY

Europe's quantum industry is at the threshold of commercial viability. Enterprises involved in quantum computing, communications, and sensing have emerged from strong research ecosystems but remain hindered by Europe's structural weaknesses: fragmented legal and fiscal frameworks, duplicative company registration and reporting processes, and inconsistent governance rules across the Member States (MS) of the European Union (EU).

The proposed **28th Regime**, centred on a **single EU-level digital company register** and established by a **Regulation**, will provide a transformative solution. For firms developing deep technologies, which depend on speed, scale, and trust, the difference between an EU Directive and a Regulation is existential. An EU Directive leaves room for 27 divergent interpretations; a Regulation ensures one coherent, directly applicable legal instrument.

This document explains why a Regulation in our opinion can best serve the needs of the quantum sector, how it would interact with national **labour laws** and **taxation systems**, and how real-world cases illustrate the urgency of a supranational approach that overcomes the complexities of export controls and inter-EU M&A and removes obstacles to whole-of-EU investment. It concludes with clear policy recommendations for integrating the 28th Regime into the EU's **Startup and Scale-up Strategy**, ensuring deep tech firms can incorporate once, operate everywhere, and compete globally.

1. Quantum Technology and Europe's Strategic Position

The EU has identified quantum as a critical technology (1) in its Economic Security Strategy (2). Its applications range from sensing, communication and computation and can be used to accelerate drug discovery, finding new materials for batteries, innovative modelling techniques of fluid dynamics in weather simulations, breaking encryption, to financial applications such as risk and scenario analyses, and pricing complex derivatives for finance and capital markets secure finance, logistics optimisation, and drug discovery. Both the United States and China have established legal and financial ecosystems that allow quantum firms to scale rapidly and attract global capital. QuIC has consistently argued that Europe risks lagging behind unless it addresses the barriers to commercialisation of quantum technologies. This includes removing systemic barriers within the European Single Market.

We believe that so-called "28th Regime" will be capable of removing some of these barriers, by reducing bureaucratic burdens while safeguarding national competences in areas such as taxation and labour law. This balance is particularly critical for deep tech firms, which need uniform corporate law without disrupting Member State specific social, labour or fiscal autonomy.

IMPORTANT NOTES

(1) Commission Recommendation (EU) 2023/2113 of 3 October 2023 on critical technology areas for the EU's economic security for further risk assessment with Member States

(2) JOIN (2023) 20 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023JC0020>

2. The Limits of Directives in Supporting Quantum Firms

Directives like EU 2019/1151 (3) (Digitalisation Directive - Use of digital tools and processes in company law) and EU 2025/25 (4) (Digitalisation Directive 2.0) have streamlined company formation but remain dependent on national implementation and national parliaments are known to be keen to add additional requirements or lengthy delays when implementing such directives.

For a quantum company expanding, for example, from Paris to Munich and Tallin, this means:

- Filing in three jurisdictions, with three sets of costs, timelines, and documentation.
- Facing different notarial practices (mandatory in Germany, optional in France, not required in Estonia).
- Varying recognition of digital identities and signatures, undermining EU-wide certainty.

This patchwork makes the EU market slower and costlier to navigate than, for example, Delaware in the United States, where incorporation is typically same day. We note, however, that even Delaware companies operating in other states are still required to file for “foreign qualification” and appoint agents in the other states. This adds to complexity of inter-state operations which should be avoided in the 28th Regime.

Nevertheless, for deep-tech investors, this discrepancy is one factor in favour of US or offshore legal forms.

IMPORTANT NOTES

(3) <https://eur-lex.europa.eu/eli/dir/2019/1151/oj/eng>

(4) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32025L0025&qid=1756106585848>

3. The 28th Regime as Regulation: Advantages for Quantum Companies

A directly applicable EU regulation offers five decisive gains:

- i **Speed:** The 48-hour incorporation target, underpinned by uniform eIDAS authentication and tamper-proof records, enables rapid spin-out formation—critical when transferring IP from universities into startups.
- ii **Certainty:** A centralised EU certificate of incorporation, recognised across Member States, removes the legal uncertainty of national divergence. This is crucial in structuring cross-border joint ventures in sensitive areas such as quantum encryption.
- iii **Governance Innovation:** Optional governance modules (asset locks, steward-ownership clauses) embedded in the regime ensure protection across all European jurisdictions, as well as safeguarding against hostile takeovers of strategic quantum assets.

- iv **Transparent Ownership:** the register should include clear details of the ultimate beneficial owners of the companies, enabling effective due diligence as well as control of the use of sensitive technologies.
- v **Ownership of IP:** Enabling a single entity to own all of the intellectual property developed by employees and contractors in the company would avoid the existing patchwork of ownership due to different employees working in different companies.

4. Labour Law Interactions: Preserving National Autonomy While Enabling Flexibility

Labour law currently remains the competence of Member States, yet company formation (creation) intersects with issues of employment contracts, social security contributions, and worker participation. The 28th Regime must ensure

- **National labour protections remain intact.** For example, a quantum company registered under the EU regime but hiring in another EU country will need to decide the appropriate labour law regime. We suggest that the company could either chose a single labour law for all of its employees in the European Union based on where the company has its headquarters (with employee consent) OR could decide that the applicable labour law is the one in which the employee is habitually resident (e.g. for tax purposes).
- **Co-determination regimes.** We note that this has been one of the most controversial aspects in the establishment of Societas Europaea (SE). We note, however, that startup companies generally do not fall under co-determination laws automatically and that many companies have employee ownership structures that make traditional co-determination regimes, such as Germany's Mitbestimmungsgesetz, inappropriate. We believe that there should be an opportunity for employee representative bodies to be established, but this should be left to the individual companies to establish and decide the best internal models.
- **Labour mobility support.** Uniform EU incorporation facilitates hiring across borders: a quantum firm headquartered under the 28th Regime can simply register employment seamlessly in other Member States.

Real-life example: Estonian e-residency companies already hire across the Union but must often create subsidiaries or employ through outsourcing companies to meet national labour obligations. A regulation-based 28th Regime would allow one corporate identity to meet these obligations consistently, thereby lowering transaction costs.

5. Taxation Interactions: National Sovereignty and EU Coordination

Taxation also remains firmly a member state competence, except for VAT. However, company registration is the gateway to tax obligations. The 28th Regime will need to balance:

- **National tax collection:** A quantum company incorporated under the regime must register with tax authorities in each jurisdiction where it has a permanent establishment. We propose that the registration be carried out centrally and standards adopted for distributing the tax between the relevant tax authorities. For example, if a 28th Regime company develops software in Italy and operates a quantum testbed in France, corporate tax must still be paid under Italian and French rules respectively. However, there should be a single e-tax declaration.
- **R&D incentives:** R&D incentive types vary significantly across Europe and include various types such as reduced tax rates, tax credits, tax deductions, accelerated depreciation, reduced social security contributions, and more. Each European country has its own complex criteria for determining the eligibility of R&D expenses, along with different rates and rules, which creates a substantial administrative burden for companies. In contrast, the US offers only two types of R&D incentives: tax credits and tax deductions. The tax credit is equal to 20% of a business's qualified research expenses, while a tax deduction is allowed for 100% of eligible R&D expenses.

To promote R&D activity in Europe and attract greater investment in the tech sector, a unified EU R&D incentive, at least for 28th regime companies, should be introduced alongside the various R&D incentives offered by member states. The EU R&D incentive should feature clear and simple eligibility criteria, an appealing flat rate, and should refrain from implementing caps.

- **Avoiding double taxation:** Existing EU directives (Parent-Subsidiary, Interest and Royalties) and bilateral treaties reduce double taxation. A single EU-level register could automate reporting of taxable presence across Member States, reducing compliance burdens.
- **VAT alignment:** EU MS recognise national VAT numbers for cross-border transactions under Art. 214 VAT Directive (2006/112/EC), a positive for Europe. With the introduction of the 28th Regime, all EU MS should recognise a single VAT number to ease cross-border transactions in order to simplify the administration of value added tax.

6. Dual Use and Export Control

Quantum technologies are often perceived as being “dual-use”, i.e. the technologies can serve both civilian and military applications and are subject to some of the most complex export control regimes in Europe. The current rules are anchored in the EU Dual-Use Regulation (Regulation (EU) 2021/821), but our experience suggests that implementation varies widely among Member States. This patchwork creates uncertainty for companies operating across borders. This is especially true in emerging fields such as quantum technology, AI, and advanced semiconductors, where the line between commercial and strategic use is often blurred. Currently, businesses must navigate divergent approval practices, inconsistent timelines, and fragmented oversight, all of which slow down innovation and complicate compliance. This affects investment and growth in Europe’s high-tech industries, as companies face higher costs and legal risks compared to competitors in other countries with more predictable frameworks.

The proposed 28th regime would also offer a pathway out of this fragmentation. By creating a supranational company form, it will also serve as a harmonised entry point for export control compliance. Embedding export control and dual-use screening into the 28th regime’s digital infrastructure and leveraging eIDAS identification, blockchain-based audit trails, and AI-driven verification will provide clarity and consistency for companies operating EU-wide.

We propose that a start-up, for example, could incorporate under the 28th regime and access a standardised export licensing module integrated directly into the company register, ensuring that compliance obligations are uniform across all Member States. In this way, the 28th regime would not replace national security prerogatives but rather streamline them, ensuring more predictability for businesses while preserving Europe’s strategic controls.

In the case, a standardised export licensing process would not be immediately put in place across the 27 Member States, an alternative scenario, would be for a given company to only comply to the export-control rules of the country in which it is headquartered instead of showing compliance to the export-control rules of each of the country from where a given company might export from the EU. This will allow to create a ‘once-only country scheme’ for compliance to export-control laws across the EU. This could notably be achieved via 1- extending the scope of the Union Export General Authorizations under the EU dual-use Regulation to encompass quantum technologies-related exports, or 2- Creating a new type of authorisation under the EU dual-use Regulation that is issued by one Member State but is valid in all Member States of the EU.

We would argue that this fusion of company law and export-control governance would strengthen technological sovereignty and competitiveness while reducing the compliance burden and costs on Europe’s most innovative firms.

7. Cross-Border Financing. Cross-Border Financing

At present, European start-ups and scale-ups seeking cross-border financing face the problem of operating within a fragmented legal environment. Venture capital funds and institutional investors must often structure their investments through complex chains of national vehicles, because each Member State applies its own rules on incorporation, shareholder rights, capital maintenance, and disclosure. This leads to duplicated due diligence, higher transaction costs, and weaker investor confidence compared to, for example, the United States, where Delaware law provides a widely accepted and predictable baseline. For young, innovative European companies, especially in high-technology sectors, the absence of a uniform legal form complicates both the attraction of multinational investors from outside of Europe and the subsequent scaling of operations across multiple markets.

The proposed 28th regime would create predictable and uniform rules and thereby reduce legal risk for investors, who would no longer need to interpret divergent national frameworks. Cross-border financing could be further supported by optional governance modules embedded in the regime—such as standardised venture capital clauses, convertible instruments, or steward-ownership safeguards—to reflect common investor practices. A central EU company certificate, digitally verifiable and multilingual, would allow investors to validate ownership structures, shareholder rights, and compliance status in real time.

We note that the current rules for financing research and development in companies by the European Union through, for example, the Horizon Europe programme requires participation from companies from at least three countries. These rules will need to be amended to ensure that companies established under the 28th regime are generally eligible for such funds, particularly if they have activities or operations in several EU member states.

There would also need to be rules to establish access to national research and development funding. For example, a company established under the 28th regime could be eligible for funding in those locations in which it has an establishment. Rules such as those applied in Germany to access funding from the “Länder” could serve as a basis for such funding.

We note the ongoing discussions about a Capital Market Union and we urge that companies formed under the 28th regime should also be considered eligible to participate in such cross-border funding opportunities. By aligning incorporation reform with harmonised cross-border financing instruments—such as passporting for venture capital funds, simplified listing rules for high-growth firms, and EU-level investor protections—the regime would strengthen Europe’s financial depth. This connection would ensure that the 28th Regime is not only a legal form for incorporation but also a lever for scaling firms from spinouts to IPOs within the EU, thereby addressing one of the main drivers behind the relocation of deep-tech firms to Delaware or Singapore.

8. Ownership of Intellectual Property

The European Patent Office (EPO) and the European Intellectual Property Office (EU IPO) both provide Europe-wide systems for the registration of patents (at the EPO) as well as trademarks and designs (at the EU IPO). These intellectual property rights often represent the main value in innovative companies. However, ownership of these intellectual property rights is generally vested in the employer. This means that ownership of such intellectual assets can be spread across multiple subsidiaries and subjected to different rules and procedures. By providing a single corporate entity, all of the IP developed can be assigned to a single entity, thus providing a greater degree of transparency and clarity of these important company assets.

9. Company and Contractual Law

We have argued that the 28th Regime should be implemented as a Regulation to ensure uniformity of application. It is inevitable, however, that issues will arise for which the 28th Regime does not contain adequate provisions to govern. To allow a degree of flexibility, the Regulation should provide for schedules and codes of practice to be adopted to consider any gaps in the law (“regulatory lacunae”) or changes in society.

As a last resort, a default choice of jurisdiction will be essential to ensure legal certainty and predictability. We suggest that such a fallback should mirror existing approaches under other supranational EU legal forms, such as the European Company (SE) directive. In practice, this would mean that matters not expressly regulated by the 28th Regime (including any schedules) would be governed by the national law of the Member State in which the company has its principal registered office. This model preserves coherence with the principle of subsidiarity while avoiding the aforementioned regulatory lacunae. It also ensures that companies registered under the 28th Regime cannot exploit gaps in legislation to operate outside established frameworks for taxation, labour law, or corporate governance.

We acknowledge that such a default to national law may introduce a measure of fragmentation, as the uniformity promised by the 28th Regime would depend on the extent of EU-level provisions actually adopted. To balance innovation and legal certainty, it is therefore crucial that the Regulation clearly specifies both the scope of the unified Regulation and the conditions under which national law might apply.

Similarly, the absence of a European commercial code should also mean that any agreement entered into by a company established under the 28th Regime would be governed by the law of the jurisdiction in which the principal office is located, unless it is clarified in agreement that the agreement is subject to the law of another jurisdiction (as is often the case).

10. Dispute Resolution

There will inevitably be disputes within the 28th Regime and there will be the need for dispute resolution mechanisms. A practical model can be drawn from the experience of the EUIPO and the Statute for a European Company (SE). For routine disputes—such as challenges to the validity of incorporation documents, objections to the use of a company name, or conflicts over governance clauses embedded at registration—the regime could provide an administrative review mechanism directly within the EU-level digital company register. Much like the EUIPO Boards of Appeal, such a body would offer specialised, fast-track adjudication on technical and procedural questions.

For disputes of a more substantive nature, particularly those engaging contractual rights, liability issues, or shareholder conflicts, jurisdiction would default to either a separate court, like those of the Unified Patent Court Agreement or specialised Chamber of the General Court, or to the courts of the Member State in which the company has its registered office or – in the case of employment related disputes – the one where its employees are based when the former are not located in the same country than where the company is registered. This would ensure consistency with existing EU practice while providing access to judicial remedies.

To reinforce legal certainty and avoid forum shopping, the Regulation establishing the 28th Regime should define a clear hierarchy: primary reliance on the EU register’s internal review system, appeal to EU courts for EU-law questions, and default jurisdiction of national courts for any matters left to Member State law, notably labour law.

A hybrid system of administrative and judicial oversight would therefore combine speed and technical expertise with judicial guarantees of independence. It would also create a transparent and predictable path for founders, investors, and regulators, ensuring that disputes about registration can be resolved without undermining the uniformity and credibility of the new legal form.

11. Case Comparisons and Lessons

- **Delaware, USA:** Offers near-instant incorporation with legal predictability, attracting global quantum startups (e.g., IonQ incorporated in Delaware before NASDAQ listing). We note, however, that Delaware companies operating out of state still need to register themselves in other states.
- **Estonia, EU:** Digital incorporation within minutes via e-Residency shows what is technically possible, but expansion still requires compliance with foreign labour and tax laws.

- **Malta, EU:** Blockchain-backed company register has demonstrated secure, tamper-proof records for filings.

These examples highlight the gap between Europe’s potential and current practice: the technology for EU-wide incorporation exists, but legal fragmentation persists.

12. The 28th Regime within the EU Startup and Scale-up Strategy

The Commission’s **Startup and Scale-up Strategy** (5) stresses the need for innovation-friendly regulation, better access to finance, and rapid business formation. Embedding the 28th Regime as a regulation is the most concrete way to deliver on these objectives.

- It provides the **legal backbone** for financial instruments like the Scale-up Europe Fund.
- It simplifies incorporation for spinouts under programmes like **Lab to Unicorn**.
- It reduces red tape, making Europe more attractive for founders who might otherwise incorporate in the US.

For quantum companies, this synergy will be significant. Without it, Europe risks repeating the semiconductor dependency lesson—strong research, weak scale-up.

IMPORTANT NOTES

(5) https://research-and-innovation.ec.europa.eu/document/download/2f76a0df-b09b-47c2-949c-800c30e4c530_en?filename=ec_rtd_eu-startup-scaleup-strategy-communication.pdf

13. Recommendations for Policymakers and the Quantum Consortium

- 1 Insist on implementation as an EU-wide Regulation, not a Directive requiring national implementation:** Only regulation ensures uniformity, rapid incorporation, and EU-wide legal effect.
- 2 Clarify labour law alignment:** The regime must explicitly state how national labour protections, including co-determination, continue to apply where employees are based.
- 3 Integrate taxation reporting:** A central EU identifier and report should facilitate automatic registration with national tax authorities, while respecting national rates and rules.
- 4 Leverage technology:** Build an online register based on technologies such as the distributed ledger technology (as in Malta and Estonia) to guarantee transparency, security, and trust.
- 5 Position quantum as the test case:** Policymakers should be reminded that if Europe cannot deliver a seamless legal form for its most strategic sector, its credibility on competitiveness will be undermined.

CONCLUSION

The 28th Regime represents more than administrative simplification. For Europe's quantum industry, it is the legal foundation upon which sovereignty, competitiveness, and innovation depend. Only a regulation, not a directive, can provide the certainty quantum firms require to scale across Europe.

By embedding labour law safeguards, integrating tax interactions, and aligning with the Startup and Scale-up Strategy, the 28th Regime can provide a once-in-a-generation legal tool: one that allows Europe's quantum startups to incorporate once, operate everywhere, and compete globally.

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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.