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Policy Brief

When Europe Scales

How Startups and Scale-ups Can Drive European Competitiveness and Why Good Regulation Is More Important than Ever

By David Osimo, Vittoria Barbieri and Cristina Moise

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Europeans are worried. In an increasingly unpredictable and transactional world, where economic power is essential, European companies struggle to compete on the global stage. The Draghi report points to the lack of fast-growing new companies: "... there is no EU company with a market capitalisation over EUR 100 billion that has been set up from scratch in the last fifty years, while all six US companies with a valuation above EUR 1 trillion have been created in this period." Europe's challenges are visible throughout the growth path. At every stage, there are orders of magnitude fewer new fast-growing companies. When looking at the number of unicorns (new companies above €1 billion in valuation), Europe is 80% smaller than the United States and 40% smaller than China. Put simply, Europe has fewer highly successful insurgents.[1]

This gap is not new and has been a topic of discussion for at least 20 years. What is less widely known is that the picture is not entirely bleak – Europe has been able to create many unicorns in the last 10 years, just not enough of them. Fintech, for instance, is a well-recognised success story, with Europe overtaking China in the number of fintech unicorns and companies such as Klarna and Revolut becoming household brands across Europe. Interestingly, the rise of fintech is largely due to effective EU-level regulation. Just like for other European success stories, such as Ryanair and Vodafone, the fintech startup ecosystem was cultivated through a deliberate pro-competitive regulatory framework, an unwavering commitment to a genuine single market and interventions addressing critical market failures such as standards and infrastructures. And while these fintech companies have not yet reached trillion-euro market valuations, their growth significantly contributes to European competitiveness by increasing productivity and directly benefiting consumers and businesses through lower prices and better services.

Creating hyper-scalers starts with patiently nurturing the ecosystem. The question is then: what can we learn from the success story of fintech to grow the European startup and scale-up ecosystem?

The policy debate ensuing the Draghi and Letta reports too often frames regulation and innovation as mutually exclusive, with arguments polarised between regulation and de-regulation, or between large government intervention and frugality. However, the success of fintech demonstrates that these choices are not always zero-sum. Thoughtfully designed regulation can simultaneously foster innovation, open markets and enhance competitiveness. To achieve this, the policy brief identifies three policy areas where stepping up the ambition at European level can deliver radical results, as illustrated in the chart below. In addition, the EU-Inc proposal, also called the 28th regime, is a transversal measure that cuts across the three areas and could help unlock some of the most important institutional blockages encountered.

'In 10 years, the number of European unicorns increased tenfold, from 19 to 205, mostly in fintech.'

1 This policy brief is the result of a six-month research project led by the Lisbon Council and supported by Stripe, the technology company that builds economic infrastructure for the internet.. Throughout, Stripe served as a key knowledge partner, often answering questions from the curious authors about barriers to scale-up growth and the reasons for the success of fintech. The project team and lead authors would like to thank Georgi Dimitrov, Anouk Gelan, Frank Gielen, Paul Hofheinz, Omar Kandil, Sivasegaram Manimaaran, Keith Sequeira, Max Strotmann and Sandrell Sultana. Any errors of fact or judgement are the project team's and lead authors' sole responsibility.

Figure 1. **Overview of policy recommendations**

EU-Inc

A scale-up-centric single market

- **a.** Think scale-up first in analysing the impact of regulation
- **b.** Radically improve the quality of information for exporters in European digital services
- **c.** Use passporting as default in business-to-business digital services
- **d.** Replicate the fintech approach in cleantech, govtech, cybersecurity and healthtech
- **e.** Redesign funding for innovation around scale-ups, building on the successes of the European Innovation Council

A union of talent

- **a.** Strengthen coordination for innovation
- **b.** Make public-private collaboration the default for digital and STEM education
- **c.** Boost the European micro-credentials market
- **d.** Streamline the blue card process for foreign workers
- **e.** Take a harmonised and competitive approach to stock option taxation
- **f.** Make cross-border recruitment easier

Digital-native rulemaking

- **a.** Ensure all regulations are fit for regtech
- **b.** Make digital by default a reality for government-to-business services
- **c.** Launch an EU-wide flagship programme on generative AI for administrative compliance across member states
- **d.** Deliver trusted digital infrastructures
- **e.** Make public procurement more accessible to startups

Such bold policy actions do not constitute a radical change in European policymaking but rather go back to the origins of European policy. This is not a different Europe, but Europe at its best, in line with its roots and most notable successes. Jacques Delors said it clearly 40 years ago: "We Europeans must tell ourselves each and every day: yes, we know how to do it, and yes, we can do it."[2]

Europe has not missed the digital competitiveness train yet

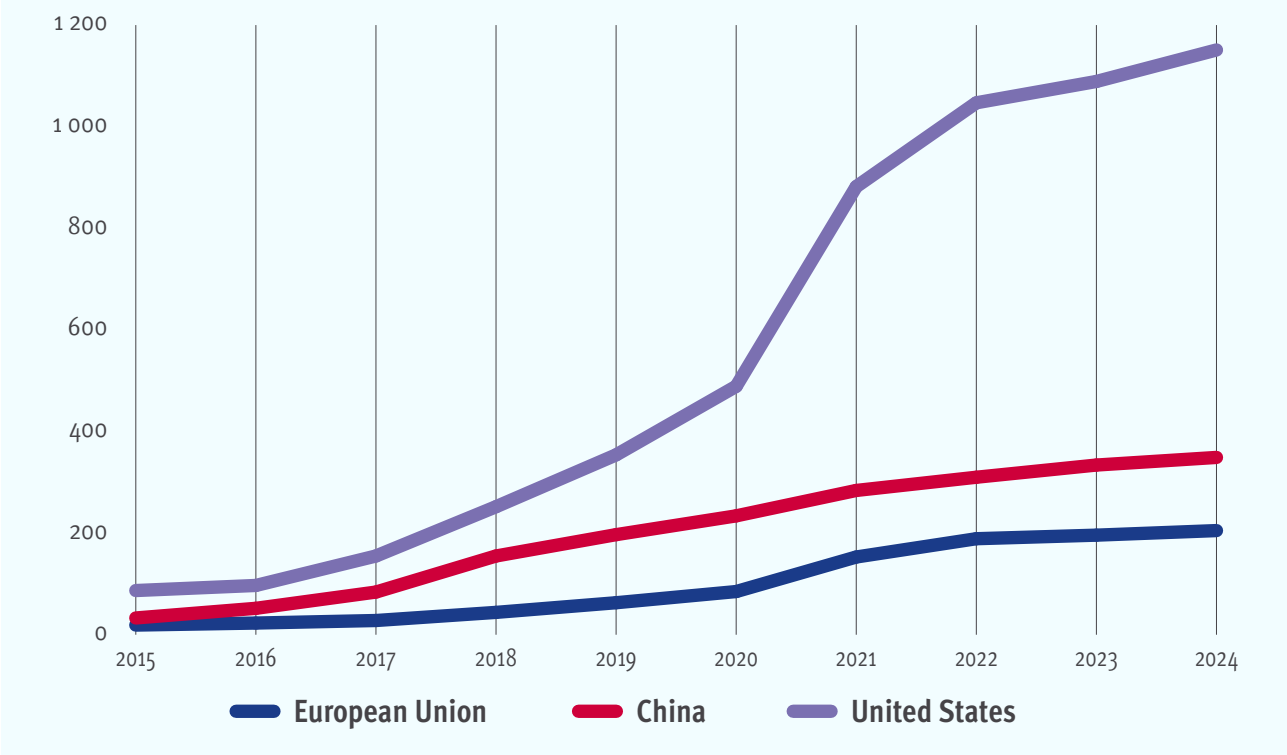
By all measures, the European Union underperforms the U.S., and often China, when it comes to digital innovation. No EU companies appear in any list of top companies, be they "hyper-scalers" or companies valued at more than €1 trillion. But the EU also lags behind when it comes to second and third tier companies, such as unicorns (companies valued above €1 billion) or decacorns (above €10 billion). In 2024, there were 2201 active unicorns worldwide, with more than half (52%) being headquartered in the U.S.[3] Only 9% of unicorns are headquartered in the EU, while China hosts 16% of these companies.[4]

2 Jacques Delors, speech to the European Parliament, plenary session 14 January 1985, PE2.AP.DE.1984// DE19850115.

3 Authors' calculations based on Dealroom database of startups and scale-ups. The results exclude low activity, acquired and closed companies.

4 Ian Hogarth, "Can Europe Build Its First Trillion-Dollar Start-Up?," *Financial Times*, 30 November 2024, section The Weekend Essay.

Figure 2. Cumulative number of unicorns, total and selected economies, 2015-2024



(Source: Authors' calculations based on Dealroom database of startups and scale-ups)

Note: Data refers to verified unicorns and €1 billion exits of operational companies only. Low-activity, acquired and closed startups and scale-ups are not included in the results.

Secondly, Europe is less dynamic: in the U.S., the innovation leaders of the 2000s (automobiles and pharma) are different from those of the 2020s. In contrast, Europe's leaders in R&D have remained largely unchanged, still dominated by the automobile sector. And the long-standing narrative of the European paradox – where Europe excels in science but does not translate advances into market power – is becoming increasingly outdated. The EU now has only three of the top 50 universities, against 21 in the U.S. and 15 in China.

Yet despite this bleak outlook, success is possible – and already happening. The narrative of stagnation and decline in European digital competitiveness only holds when focusing on headline indicators such as the number of hyper-scalers in comparison to the U.S. and sometimes China. A closer look at the European data reveals that the online economy is alive and kicking, even if it is not world leading.

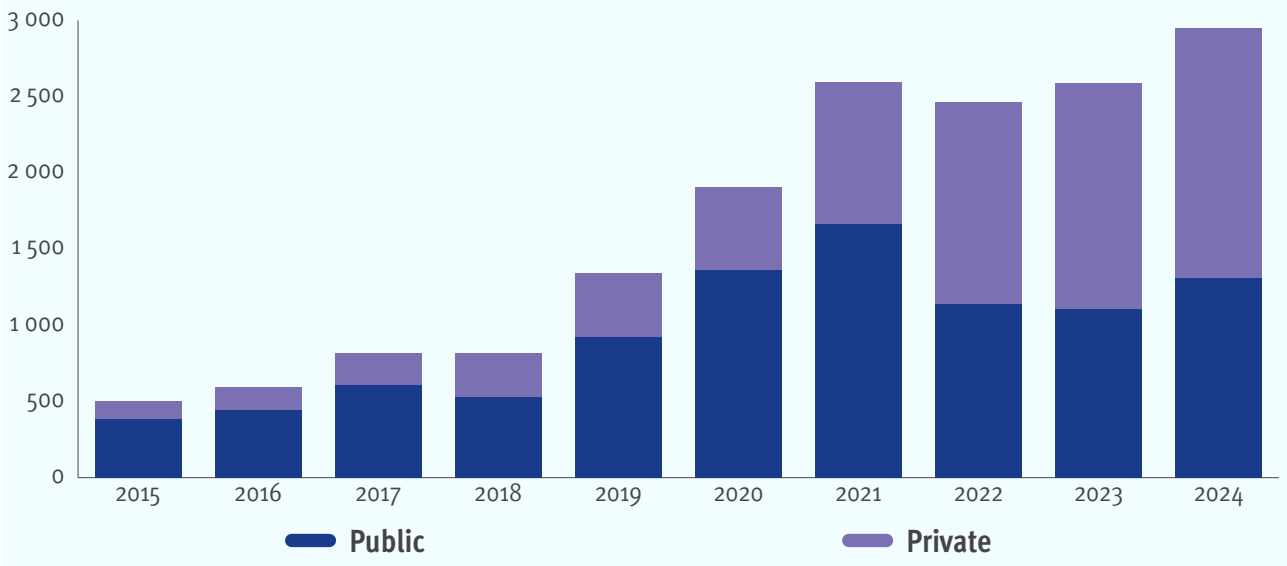
On the adoption side, of course, it is well known that SMEs are fast embracing digital solutions, particularly in e-commerce and cloud computing: 25% of SMEs showed "high digital intensity" in 2023, and e-commerce now generates 12% of their total turnover.[5]

Success is also clearly visible when it comes to startups and scale-ups. Over the past decade, the value of Europe's tech ecosystem increased beyond expectations to around €2.9 trillion

5 The Digital Intensity Index is a European Commission-led composite indicator that captures how many digital technologies enterprises adopt. A high score means a company has adopted at least 7 out of 12 selected technologies. Visit https://digital-strategy.ec.europa.eu/en/policies/desi for more.

across private and publicly listed companies, five times higher than 10 years ago (when it was valued at approximately €504 billion in 2015). The number of European unicorns increased tenfold, from 19 to 205. At the same time, Europe has demonstrated its ability to nurture founders from ideation to billion-euro valuations and initial public offerings (IPOs), with several high-profile listings in recent years.[6]

Figure 3. European tech ecosystem value in billions of euros, public and private markets, 2015-2024



(Source: Atomico, *State of European Tech,* 2024)

The lack of hyper-scalers or trillion-euro companies, and the gap with the U.S. and China is certainly concerning, but it is not the full picture and can be highly misleading. A dynamic, thriving online economy, rich in companies selling their services across Europe and the world – even if they lack the scale of U.S. or Chinese giants – is inherently beneficial for Europe because it increases productivity, which has been notoriously lagging in the EU. Since 1995, the productivity gap between the euro area and the U.S. has widened considerably, growing from near parity to over 20% in favour of the U.S. by 2023. The lower productivity levels within the EU can explain approximately 70% of the disparity between the two regions (in per capita GDP).[7]

Productivity is a cornerstone of economic growth, business success and individual well-being. It drives innovation, increases living standards and enhances competitiveness in a globalised world. Isabel Schnabel, member of the board of the European Central Bank, points out that a substantial part of productivity growth comes from shifting output from less productive to more productive firms. Young firms are almost three times as productive as older firms.[8]

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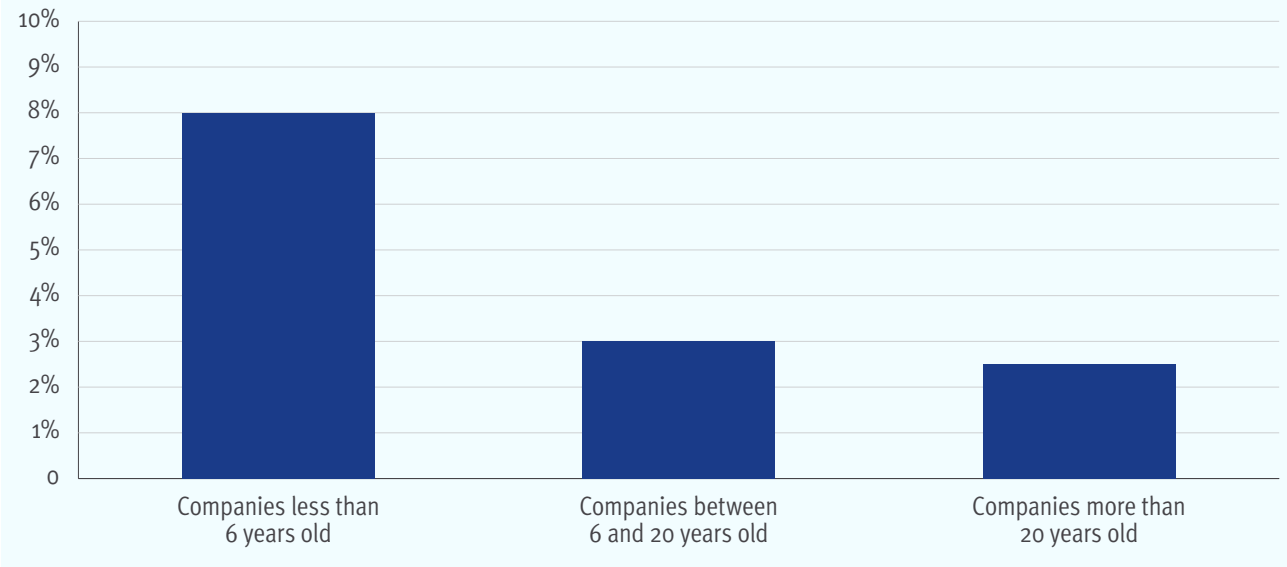
6 See Atomico, *State of European Tech 2024,* 2024. https://www.stateofeuropeantech.com.

7 See Mario Draghi, *The Future of European Competitiveness* (Brussels: European Commission, 2024) and Antonin Bergeaud, *The Past, Present and Future of European Productivity* (Frankfurt: European Central Bank, 2024).

8 See European Central Bank Economic Bulletin Issue 1, 2022. Data from Bureau van Dijk Orbis, the Bank for the Accounts of Companies Harmonized (BACH) database and ECB staff calculations.

Figure 4. Annual labour productivity growth of surviving firms by age group



(Source: Schnabel (2024) based on ECB Economic Bulletin Issue 1/2022)

In other words, European startups and scale-ups are highly productive, but there are too few of them, and their growth is not sufficient to significantly increase EU-wide productivity. In fact, in the U.S., large companies (with 250 employees or more) employ 60% of the workforce while in the EU, only 35.6% of people work for a large company.[9]

The growth of the European startup and scale-up ecosystem is not only a prerequisite for growing superstar firms, it is beneficial in itself because it increases productivity and competitiveness.

The good news is that Europe has already seen this fast growth of innovative firms happening in one service sector. Fintech is arguably the most visible European scale-up success story and there are many lessons to be learnt from it.

The lessons of the fintech success story: When regulation helps innovation

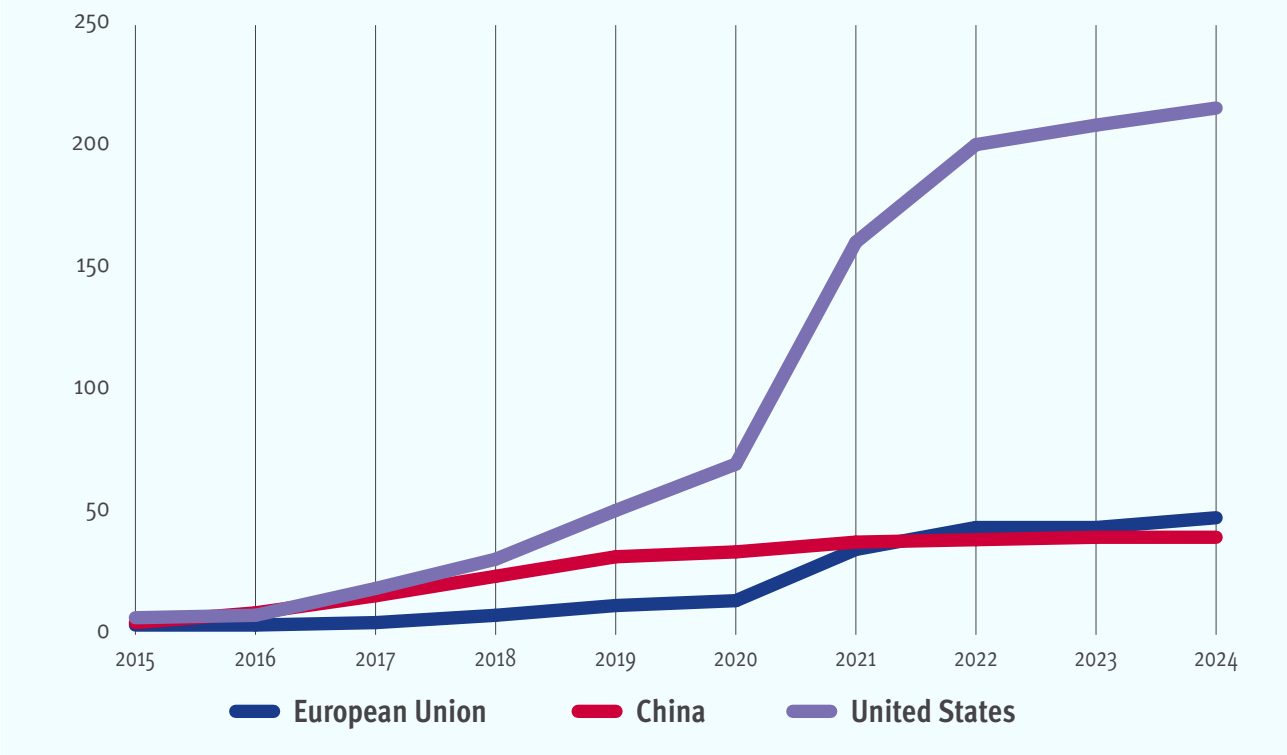
Fintech describes a wave of startups and technology firms that emerged in the 2000s and rapidly expanded in the aftermath of the 2008 financial crisis, transforming financial services by providing a better customer experience and democratising access to financial tools.

In 2024, the global fintech market was estimated at €340 billion, with Europe accounting for about 30% of the global market size. While the U.S. remains the undisputed leader, the gap is smaller and Europe was home to 48 fintech unicorns in 2024 – the only tech sector where it

9 See Isabel Schnabel, "From Laggard to Leader? Closing the Euro Area's Technology Gap," speech at the European University Institute, 16 February 2024.

has overtaken China rather than the other way around. In other words, fintech is a global wave that Europe has been able to ride successfully.[10]

Figure 5. Cumulative number of unicorns in fintech, total and selected economies, 2015-2024



(Source: Authors' calculations based on Dealroom database of startups and scale-ups)

Note: Data refers to verified unicorns and €1 billion exits of operational companies only. Low-activity, acquired and closed startups and scale-ups are not included in the results

European fintech companies have established themselves as household names both across Europe and globally. Companies like Revolut, Payhawk, N26 and Klarna, among others, operate seamlessly across EU countries and have achieved global recognition while proudly maintaining their European DNA. Compared to unicorns in other sectors, fintech unicorns are more likely to operate across borders.

This success is largely due to a new wave of European entrepreneurs capable of seeing market opportunities and delivering on them. And smart regulation played a major role in empowering them. The European Union has put forward several pro-competitive policies that provide the ideal conditions for startups to grow: first, by removing additional barriers for businesses to operate in other member states; and second, by ensuring that new players could enter the market. Such forward-thinking regulation, coupled with proactive financial oversight, has transformed Europe into a fintech hub by harmonising rules, attracting investment and enabling game-changing payment solutions to flourish across the continent.

10 The performance data presented here are particularly impressive as refer to the European Union without the United Kingdom, a significant financial and startup power, following its EU exit. Some EU regulations, such as PSD2, remain in place in the UK while passporting provisions are no longer in place. A comprehensive assessment of Brexit's long-term effects on its fintech landscape is still premature.

Table 1. Key regulations in fintech

Year	Regulation	Key provisions
1989	Second Banking Directive	Introduced the concept of financial passporting for banks within the EU.
1999	E-Money Directive (EMD1)	Established the legal framework for issuing electronic money.
2007	Payment Services Directive (PSD1)	Harmonised payment services across EU countries and introduced licensing for payment institutions.
2009	Regulation on Cross-Border Payments	Ensured that cross-border payments in euros cost the same as domestic payments.
2009	Revised E-Money Directive (EMD2)	Updated the rules for e-money issuance, promoting innovation and competition.
2011	Alternative Investment Fund Managers Directive (AIFMD)	Allowed cross-border marketing of alternative investment funds.
2013	SEPA Regulation	Mandated the adoption of SEPA standards for credit transfers and direct debits.
2016	General Data Protection Regulation (GDPR)	Enhanced data protection and security standards across the EU.
2018	Payment Services Directive 2 (PSD2)	Required banks to provide open access to customer account data to third-party providers (with consent).
2018	Insurance Distribution Directive (IDD)	Standardised insurance distribution across the EU.
2017	SEPA Instant Credit Transfer (SCT Inst)	Introduced real-time euro payments within 10 seconds.
2020	Markets in Crypto-Assets Regulation Proposal (MiCA)	Proposed comprehensive rules for digital assets and cryptocurrencies.
2022	Digital Operational Resilience Act (DORA)	Introduced standardised cybersecurity requirements for financial entities, including fintechs.

At the heart of this growth is the European single market and its unique features, enshrined in financial passporting. First established in 1989 with the Second Banking Directive, this game-changing innovation allows a financial services firm established and authorised in one member state of the European Economic Area (EEA) to apply for the right to provide its services throughout the EEA, with minimal additional requirements. Over the years, passporting has been extended to other kinds of financial services, such as corporate banking, market services, private banking and payment services. Concretely, this enables startups licensed in an EEA member state to operate seamlessly across 30 countries with no additional authorisations required. Often overlooked, this pillar of European integration has broken down barriers to access, cut bureaucracy and empowered startups to think big and scale fast.

The second crucial element was Europe's commitment to common standards, which significantly reduced the cost and complexity of building interoperable fintech solutions. The introduction of the single euro payments area (SEPA) and SEPA instant payments exemplify this ambition to tackle Europe's notorious market fragmentation. These initiatives delivered a unified infrastructure that paved the way for fintech startups to offer innovative solutions like instant peer-to-peer transfers, digital wallets and e-commerce platforms. For instance, fintech companies tap into SEPA to simplify payment processing and ensure hassle-free payouts for businesses across Europe.

Last but not least, perhaps the most powerful catalyst for fintech in Europe has been the second payment services directive (PSD2). By mandating that banks provide authorised third parties, such as payment service providers, with access to banks' data and payment infrastructure, PSD2 triggered the emergence of innovative products and services that give customers greater control over their data and finances. And by regulating different forms of financial services providers (such as payment institutions and e-money institutions that are not regulated in the U.S.) it fostered a diverse range of business models, boosting innovation and trust within a clear regulatory landscape. Europeans can now access a new generation of smarter, user-centric financial products that are safe, secure and low cost. Consumers can seamlessly connect their bank accounts to budgeting apps, payment platforms and digital financial tools, ranging from Revolut's effortless money management to Klarna's innovative buy-now-pay-later services. And more is due to come soon. The next chapter lies in expanding the principles of PSD2 to cover loans, insurance and investments. Imagine open finance solutions where standardised application programming interfaces (API) make it just as easy to compare loan options or investment portfolios as it is to send a cross-border payment. This evolution – backed by ongoing collaboration between startups and incumbents – could unlock a new era of fintech innovation and European competitiveness.

'Young firms are almost three times as productive as older firm.'

The success of fintech in Europe has obviously been long in the making, supported by a firm commitment at EU level to a genuine open single market and pro-innovation regulation put in place by a well-designed institutional ecosystem in financial regulation. It has been enabled by a deep institutional understanding of the market and strong collaboration with both established and new financial institutions. The European Banking Authority, for instance, alongside its traditional consultation activities, implemented a European Forum

for Innovation Facilitators (EFIF) to facilitate dialogue on innovation in the financial sector between national and European regulatory authorities. It created a dedicated fintech knowledge hub to engage with fintech stakeholders and carried out specialised studies and surveys.

Recommendations for delivering a pro-innovation regulatory framework

The European fintech boom proves one more thing: a high degree of regulatory activity does not have to be an obstacle to innovation per se. On the contrary, smart regulation can be effective in fostering an open, competitive, innovative single market for scale-ups. It also serves as a reminder that a healthy startup ecosystem is not at odds with European values, as today's rhetoric often suggests, but is, in fact, fully aligned with them. Historically, the European Union's greatest successes have come from pooling resources in a single market open to new fast-growing entrants that lower costs for consumers. This has consistently been the success story behind the emergence of new low-cost airlines, accessible broadband access providers, alternative mobile operators and more. While such policies are not typically labelled as startup or scale-up initiatives, they have been instrumental in facilitating the market entry and growth of value-creating insurgents. At its core, much of European regulation aims to remove friction in the free movement of goods, services, capital and people.[11]

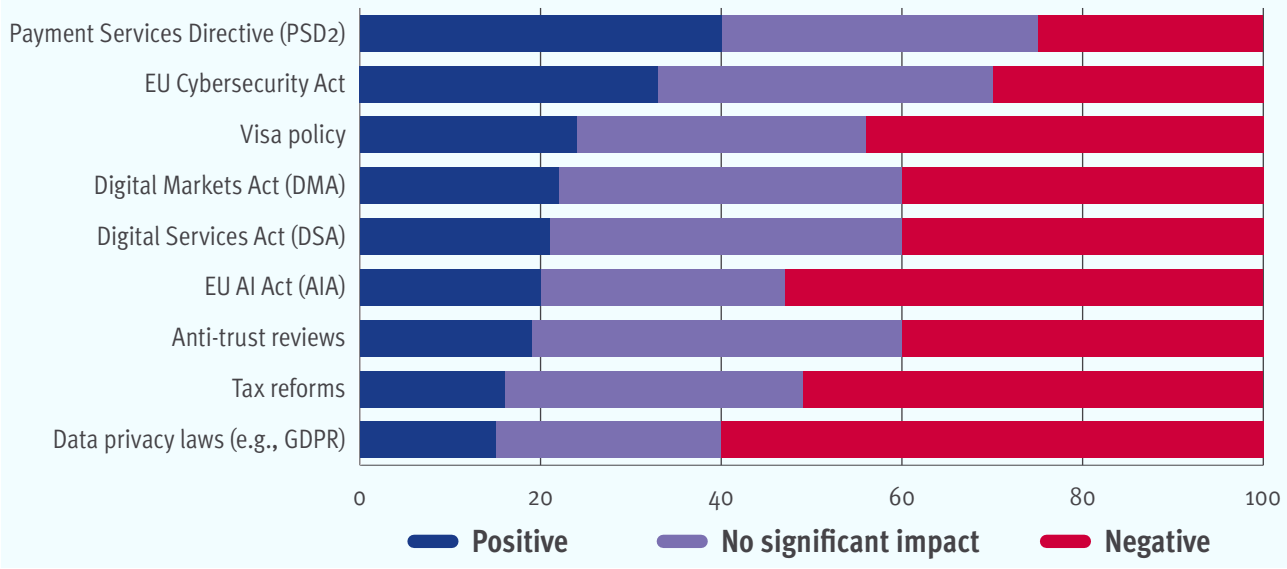
'EU policies allowed fintech businesses to operate cross border and to enter the market for financial services.'

However, not all regulations achieve this goal. Some introduce friction and are perceived rather negatively by startups: the most recent Atomico report on the state of European tech confirms that startups view the PSD2 regulation much more favourably than many new regulations. In fact, PSD2 stands out as the only policy measure with a net benefit assessment, compared to cybersecurity, visa policy, the digital markets act, the digital services act, the artificial intelligence act, tax reforms and GDPR.[12]

11 Several regulatory measures played a key role in liberalising various sectors: regulation 2408/92 for air transport, directive 98/10/EC and regulation 2887/2000 for telecommunications, and more. These reforms fostered greater competition, new services, new jobs, lower prices and the emergence of new industry players.

12 See Atomico, State of European Tech 24 (Atomico, 2024); Greg Ip, "Europe Regulates Its Way to Last Place," *Wall Street Journal*, 31 January 2024.

Figure 6. Startup perception of recent EU regulation. Total may not add up to 100% due to rounding



(Source: Atomico, State of European Tech, 2024)

To be clear, friction is sometimes a deliberate and necessary aspect of regulation to manage risks, such as the abuse of personal data or biased algorithms. Such regulations may naturally be received less positively than market-opening regulations, as they are designed to introduce safeguards early on to avoid an unstable and low-trust environment that discourages investment and hinders consumer adoption of new product and services. Yet, even in these cases, much can be done to make innovation easier and compliance less costly through more proportionate interventions, more consistent implementation, direct involvement of companies in the design of regulations and the inclusion of digital compliance by design. Recent debate on digital regulation has made it clear that there are diminishing marginal returns on friction: simply adding more regulatory friction does not make the system more effective and leads to more inconsistencies between laws.[13]

> ***'A healthy startup ecosystem is not at odds with European values, as today's rhetoric often suggests, but fully aligned with them.'***

Achieving a pro-innovation regulatory framework is no easy feat. It requires a positive-sum vision, firm political commitment to innovation, a deep understanding of the market and the capacity to work together with relevant companies throughout policy design and implementation. But Europe has repeatedly shown its ability to rise to the challenge.

So, what does this mean concretely? What can Europe do to cultivate its startup and scale-up ecosystem as it has done with fintech? Startup and scale-up policy touches on all policy domains and there is no shortage of all-encompassing roadmaps, including some written

13 For an overview of the steep increase in digital regulations see J. Scott Marcus, Kamil Sekut and Kai Zenner, A Dataset on EU legislation for the Digital World, *Bruegel Datasets*, 06 June 2024.

by the authors. As the new European Commission is about to launch a new startups and scale-up strategy, this policy brief focuses on a few targeted and potentially disruptive policy initiatives.[14]

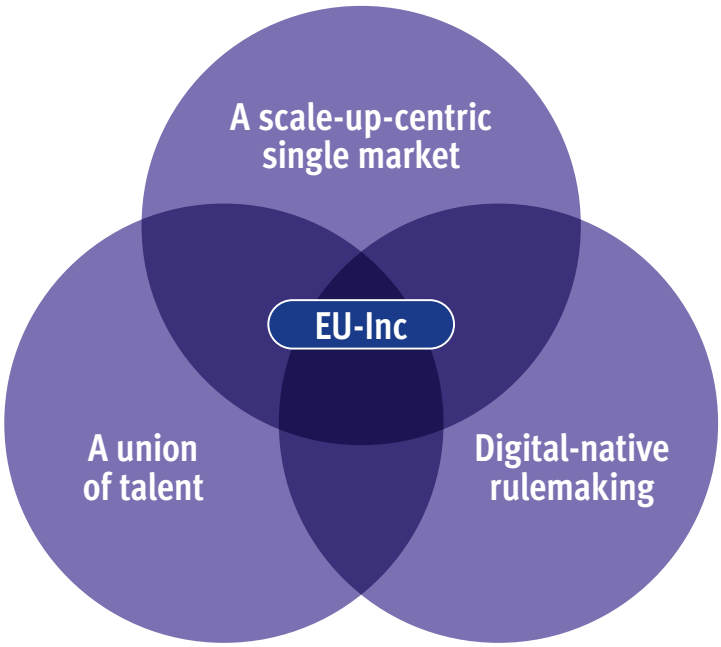
There are three main policy areas where Europe can make a difference by adopting a pro-innovation regulatory framework:

- A single market where scale-ups can offer their products and services at scale, overcoming national barriers.
- A top talent pool capable of training highly skilled workers and attracting more from all over the world.
- A system of checks and balances that leverages digital technology to reduce administrative burden and increase effectiveness.

The institutional context for each of these three areas is very different. While the single market falls firmly under the shared competence of the EU and the member states, skills, labour market and digital administration are mostly under the remit of national authorities. But European institutions have been able to deliver major legislative milestones across all these areas through EU-level support and inter-governmental negotiation. And all the recommendations listed can be initiated within the framework of the current European Commission.

One exemplary flagship policy measure that cuts across the three areas and could help unlock institutional impasses is the so-called EU-Inc, the new innovative European company status put forward by the Draghi report and the startup community, described on page 21.

Figure 7. Overview of three areas of intervention



14 See also Arthur Jordao and Carolina Pia Rossi, *EU Startup Ecosystem: Driving Change Past, Present and Future* (ESNA, November 2024).

A scale-up-centric single market

The single market remains European policymakers' most powerful instrument for stimulating innovation. It creates the conditions for a critical mass of talent capable of developing innovative products and services and it facilitates the large-scale market adoption that lowers the costs of these new products and services and makes them globally competitive.

Today's global context serves as a powerful reminder of Europe's exceptional achievements in building an open, tariff-free single market. However, the reality is that many non-tariff barriers remain, and overcoming them requires a sustained commitment. Within the EU, currently only 6% of companies export their products or services, and the percentage has barely changed over the last 20 years. Market integration is particularly a challenge in service-related businesses, which make up 70% of EU GDP but where only 15% of EU GDP is traded within the EU (against 50% for goods).[15] Businesses report that each EU country requires dedicated investment and effort. While such fragmentation is in part inevitable, due to cultural and language differences, a layer of administrative compliance obligations creates additional uncertainty and costs for companies due to the difficulty in understanding different requirements between member states. VAT is a prime example, where different VAT requirements create not just additional costs but also pose ongoing risks for exporting companies. For governments themselves, this complexity makes it more difficult to detect and fight VAT fraud.[16]

'Only 15% of EU GDP in services is traded within the EU (against 50% for goods).'

a. **Think scale-up first in analysing the impact of regulation.** The administrative burden can be drastically heavier for export-oriented SMEs and startups. For instance, environmental directives are often implemented with different reporting standard and tools across member states, exacerbating fragmentation of the single market. The current "SME test" in the European Commission's better regulation guidelines should be refined to specifically capture the impact of proposed legislation on export-oriented, fast-growing companies.

b. **Radically improve the quality of information for exporters in European digital services.** When it comes to cross-border trade, the European Commission should provide exporters with up-to-date, accurate and accessible information about compliance. This requires a far-reaching programme that includes the radical overhaul of EU-level digital information services such as SOLVIT and the Single Digital Gateway, which are currently used only by a small minority of companies, as well as centralised EU-level services such as the VAT one-stop shop.[17] Put simply, the quality of the service provided should be thoroughly evaluated and radically redesigned according to state-of-the-art service design principles, and

15 See Paul Hofheinz, Cristina Moise and David Osimo, *Green, Digital and Competitive: An SME Agenda for the 21st Century – 2023 Edition* (Brussels: The Lisbon Council, 2023).

16 See Eurochambres, *2024 Eurochambres Single Market Survey: Overcoming obstacles, developing solutions* (Brussels: Eurochambres, 2024) and CASE Center for Social and Economic Research, Directorate-General for Taxation and Customs Union (European Commission), and WIFO, *VAT Gap in the EU: 2023 Report* (Luxembourg: European Commission Publication Office, 2023).

17 In fact, no data on the adoption of these services is available on the European Commission website. The only data available is from the survey by Eurochambres, *2024 Eurochambres Single Market Survey: Overcoming obstacles, developing solutions* (Eurochambres, 2024), which reports very low usage.

adoption metrics should be regularly published to ensure the service is genuinely useful to SMEs.

c. **Use passporting as default in business-to-business digital services.** Just as licensed financial institutions can "passport" their licences to other EU and EEA countries, avoiding the need to secure separate regulatory approval in each market, “passporting” should become the default for all business-to-business digital services in the single market. For instance, startups with successful government contracts should be automatically qualified to offer their services to other governments across the EU, without having to comply with national or local pre-qualification requirements.

d. **Replicate the fintech approach in cleantech, govtech, cybersecurity and healthtech.** Specific pilots should be carried out to replicate the success of fintech in other sectors through measures that enable innovative third parties to access markets more effectively. Fast-growing sectors like cleantech, govtech, cybersecurity and healthtech present clear strategic opportunities, but there are still many obstacles that limit access to new players – and to a wide range of positive externalities. Measures inspired by fintech include passporting, compulsory data sharing and access for incumbent players, simplified administrative requirements for new entrants, common infrastructures and open standards.

e. **Redesign funding for innovation around scale-ups, building on the successes of the European Innovation Council.** European public funding for innovation should tilt the playing field in favour of excellence, with greater experimentation in new ways of funding research and innovation that reflects today’s innovation landscape. This implies moving away from funding projects and moving towards funding teams and products, in the line with the approach of the European Research Council and the European Innovation Council (EIC); an increased use of cascade funding for SMEs; an iterative, agile evaluation process that takes into account the actual delivery and not only the assessment of a project proposal. Underlying this is an enhanced capacity to reach out to the key players of the innovation ecosystem, gaining their trust and buy-in, rather than to the “usual suspects” who are more skilled in writing proposals than delivering market innovation. For instance, the EIC has invested in over 265 startups and SMEs alongside over 600 venture capital firms and corporate investors, resulting in over €3 billion in investment into deep tech companies across Europe with a leverage effect of over €3 of additional investment for every €1 of investment through the EIC. It has now established a trusted investor network of over 70 top investors to facilitate co-investments in European tech startups with a view to supporting their growth and expansion in Europe.[18]

‘“Passporting” should become the default for all business-to-business digital services in the single market.’

18 For further information on the network and its members, see https://eic.ec.europa.eu/eic-fund/trusted-investors-network_en#full-list-of-investors. For a complete assessment of the EIC, see European Innovation Council and SMEs Executive Agency, *The European Innovation Council: Impact Report 2023: Accelerating Deep Tech in Europe.* (Luxembourg: European Commission Publications Office, 2024).

A union of talent

Talent has always been considered a crucial factor for a nation's competitiveness. Europe has an excellent foundation in research and education, as well as in vocational training, yet it is unable to deliver the skilled workers companies need due to skills mismatches, technological change and an ageing population. A recent report by the European Foundation for the Improvement of Living and Working Conditions reported that 80% of European companies have difficulties finding employees with the skills they need.[19]

This has become a major constraint to competitiveness and is particularly visible in fast-growing areas such as artificial intelligence. Europe accounts for only 12% of the top AI researchers, compared to 42% in the U.S. and 28% in China. One reason is brain drain: the European Commission reports that "20% of top EU AI researchers went to the US for their graduate school, and a further 14% left for their post-graduate work."[20] Overall, just four European universities rank in the global top 50 and the European Commission estimates a gap of 8 million digital specialists. The lack of European Union competence in education is becoming a permanent hindrance to effective policy change, casting doubt on whether the necessary radical improvement can be achieved without treaty amendments. But even under current conditions, much can be done to modernise Europe's education, research and innovation ecosystems to better train, attract and retain talent.

> ***'Europe accounts for only 12% of the top AI researchers, compared to 42% in the U.S. and 28% in China.'***

a. **Strengthen EU coordination specifically on innovation and inclusion.** Greater EU coordination and harmonisation of curricula and quality standards in emerging areas such AI literacy are urgently needed to grasp these opportunities for innovation, building on the forthcoming 2030 roadmap on the future of digital education and skills. Digital and AI-driven edtech solutions are already reshaping how education is delivered, and the European startup ecosystem is vibrant. Participation in discussions on edtech initiatives and startups must be assured. At the same time, STEM and digital education should be prioritised in regional cohesion policy through the creation of centres of excellence and targeted funding in underserved regions.[21]

b. **Make public-private collaboration the default for digital and STEM education.** Public-private partnerships are crucial for delivering this education and innovation ecosystem, and the national regulatory framework should not be an obstacle. Public-private partnerships should become the new normal in STEM-related research and education initiatives. EIT InnoEnergy is one of the most prominent examples of such a partnership in shaping future-oriented job profiles. Through its master school, over 2000 students have

19 The role of talent is prominent in the seminal works about national competitiveness. See Michael Porter, *The Competitive Advantage of Nations* (New York: Free Press, 1990). For the EuroFound report, see Tina Weber and Dragoș Adăscăliței, *Company practices to tackle labour shortages* (Dublin: Eurofound, 2024).

20 See European Commission, *AI in Science: Harnessing the power of AI to accelerate discovery and foster innovation* (Luxembourg: Publications Office of the European Union, 2023).

21 For the European edtech ecosystem, see Brighteye Ventures, *The European Edtech Funding Report 2025* (Paris: Brighteyes Ventures, 2025).

trained globally through its partner universities and in close collaboration with more than 200 industry partners.[22]

c. **Boost the European micro-credentials market.** Micro-credentials play a vital role in adapting to fast-evolving demand for skills. The European Commission should accelerate efforts to support the widespread adoption of micro-credentials by boosting the availability of EU-level courses offering micro-credentials and monitoring uptake by businesses. In addition, enhancing the portability of credentials data through individual learning accounts could improve labour market efficiency and incentivise continuous learning.

'Public-private partnerships should become the new normal in STEM education initiatives.'

d. **Streamline the blue card process for foreign workers.** Attracting tech talent requires a coordinated effort to ensure attractiveness for workers and easy and predictable processes for companies. The existing blue card has been a step forward, with 89037 blue cards issued in 2023 and steady growth since 2013. However, the blue card process should be smoother, faster and better targeted towards fast-growing, innovative sectors. Canada's global talent stream is an example of best practice that could be replicated: it focuses on tech workers, with a simple process that takes only two weeks.[23]

e. **Take a harmonised and competitive approach to stock option taxation.** Retaining talent also requires a competitive tax environment, particularly in terms of the uniform treatment of stock options across member states. Harmonised taxation criteria across the EU are needed, and this should focus on taxing stock options at the time the stock is sold, not when the option is exercised. EU-Inc could provide the right framework to deliver this coordinated effort at EU level.[24]

f. **Make cross-border recruiting easier.** The problem of hiring workers across borders, already highlighted by the 2013 Startup Manifesto, remains unsolved. It should be feasible to hire workers in other member states without setting up a subsidiary, for instance, through a sort of knowledge-worker work permit as proposed in the 2016 Scale up Europe Manifesto. The posting of workers directive (96/71/EC) should be revised to accommodate more flexible rules for knowledge-based workers.[25]

22 For more information, visit https://www.innoenergy.com/for-students/master-school/.

23 The data come from Eurostat, *EU Blue Cards by type of decision, occupation and citizenship,* updated 20 November 2024. Information on Canada's talent stream can be found at the dedicated webpage: https://www.canada.ca/en/employment-social-development/services/foreign-workers/global-talent.html.

24 For an overview of how stock options are treated across member states, see Europe Startup Nations Alliance, *Startup Nation Standards: Report 2023* (Lisbon: ESNA, 2024).

25 See European Digital Forum, *Scale Up Europe Manifesto* (Brussels: The Lisbon Council, Nesta and Open Evidence, 2016).

Digital-native rulemaking

Compliance with regulation is an integral aspect of running a business and will remain so, regardless of any deregulatory effort. Effective digital government services are therefore a necessity for both citizens and businesses alike. However, too many government services in Europe still require in-person processes or are poorly delivered by digital means. In a recent survey, over half (53%) of startups say that time spent adhering to compliance processes is the greatest threat to their business. The issue does not always lie in an excess of legislation, but in inconsistent implementation across member states. In addition, digital solutions are often applied to out-dated analogue legislation, rather than being built in from the design phase.[26]

While discussing the amount of regulation remains important and necessary, especially in view of the increase in regulation over the last five years, there is a massive opportunity to reduce administrative burden by streamlining compliance across Europe. The European Commission should launch a flagship initiative for the radical digitisation and automation of compliance through the expansion of regtech and the adoption of artificial intelligence.

Underlying this effort, effective public digital infrastructures will increasingly serve as a competitive advantage for the economy as a whole, for instance, by enabling end-to-end digital transactions through digital identification.

a. **Ensure all regulations are fit for regtech.** All new regulations should be "digital-ready", i.e., open, API-based and machine-readable to reduce the administrative burden and enable automated compliance, creating opportunities for innovative European digital services in compliance technology or regtech. Regtech is already extensively used in highly regulated environments such as banking or environmental, social and governance (ESG) by large companies. Adopting common standards across regulation and across member states would allow the regtech market to extend to a much wider set of users and reporting obligations, including (crucially) environmental reporting for SMEs, thereby reducing the administrative burden (and the need for de-regulation). This can be done by ensuring digital experts are involved in the drafting of regulations; ensuring a technologically neutral solution; making regulations predictable and convergent across member states; introducing widely used data standards and interoperable solutions for reporting; and allowing the use of digital technology for compliance. To achieve this, it is crucial to maintain a steady effort of co-creation with businesses (both regulated entities and third-party regtech providers), to involve them in the process and ensure a deep understanding of the market.[27]

'Common reporting standards would democratise regtech and reduce the administrative burden for SMEs.'

26 For the survey, see Stripe, *European Tech Voices* (Stripe, July 2022). Regarding governments replicating existing inefficient processes in a digital format, rather than redesigning them for the digital age, see Andrew Greenway, Ben Terrett, Mike Bracken and Tom Loosemore, *Digital Transformation at Scale: Why the Strategy is Delivery* (London: London Publishing Partner, 2018).

27 The European Commission is working on digital-ready policies, but these have not been implemented at scale. See https://interoperable-europe.ec.europa.eu/collection/digital-ready-policymaking/digital-ready-policies.

b. **Make "digital by default" a reality for government-to-business services.** The principles enshrined in the Tallinn declaration should be turned into legal requirements for business users. Any business should be able to interact digitally with the government for any service or obligation, anywhere in Europe. The European Commission should lead by example, carrying out a complete review of its own digital services and aligning them with best practices.[28]

c. **Launch an EU-wide flagship programme on generative AI for administrative compliance across member states.** Generative AI is particularly suited for transforming technical information into clear, human-readable content. This should include a multi-language language model fed by legal provisions from all member states and accessible to all companies, where they can find complete information about compliance requirements across member states. Performance metrics and rigorous evaluation of the chatbot should be carried out to ensure adequate information quality. The model could also be used retroactively to evaluate the clarity of legal provisions, so that laws must pass a machine-comprehensibility test before being passed.

d. **Deliver trusted digital infrastructures.** Trusted digital infrastructures are essential for the European economy, as the SEPA payment infrastructure shows. Initiatives like the digital wallet, introducing an EU-wide digital application for identifying and certifying credentials across member states, and the European data spaces, aimed at facilitating data sharing in specific sectors, should be accelerated with a strong focus on user needs and buy-in by third parties in the public and private sectors. This will be the cornerstone for streamlining compliance and reducing administrative burden, enabling new, digital-native services such as enhanced know-your-customer checks. However, their deployment remains too slow and needs to accelerate.

e. **Make public procurement more accessible to startups.** This is more an issue of changing behaviour than changing regulations, requiring the removal of barriers and the creation of incentives. Clear KPIs and reporting on the engagement of startups in procurement should be included in the single market scoreboard. The European Commission should create a "startup challenge as a service" where governments can participate in procurement procedures through a sort of plug-and-play process and should itself use instruments for public procurement of innovation, not just promote them.[29]

Yes, these are ambitious proposals, but in no way more ambitious than Europe's major historical achievements. What matters now is the collective acknowledgment that the startup and scale-up ecosystem is where the future of European competitiveness lies. We will get there not with policymakers picking national or regional champions, nor with entrepreneurs who just want to chainsaw the role of governments. We will get there with a capable public sector

'What matters now is the collective acknowledgment that the scale-up ecosystem is where the future of European competitiveness lies.'

28 For better or for worse, the European Commission is designed more as a regulatory body than a public service. As such, it lacks the user-centric obsession for good digital services. Put simply, there is no EU digital service that is truly successful in serving citizens and businesses, and an in-depth review is urgently needed.

29 For a more detailed view of the idea, see David Osimo and Alessandro Paciaroni, *Achieving the Digital Double Dividend: How Building a Single Govtech Market Can Deliver Excellent Public Services and Grow the European Startup Ecosystem* (Brussels: The Lisbon Council, 2025)

able to understand, stimulate and collaborate with market forces; visionary entrepreneurs committed to engaging constructively with the regulatory process and to opening new markets rather than extracting rents; and citizens willing and empowered to hold both accountable for their actions.

A Turnkey Proposal: EU-Inc

A promising policy proposal already exists that will contribute substantially to the three goals stated above. "EU-Inc" refers to a proposed new legal entity for new, innovative companies that would allow startups to operate across the entire European Union under a single set of rules – also known as the 28th regime. This would standardise incorporation, management processes, and fundraising for innovative businesses across Europe.[30]

The initiative, included by Enrico Letta and Mario Draghi in their reports, is being driven by a group of European entrepreneurs and investors who believe that a unified startup structure is essential for Europe to compete with the U.S. and China in the global tech market. EU-Inc is still in the proposal stage, but it has gained significant support from the European startup community.

EU-Inc is expected to offer benefits through digital-ready rule-making. It will be a digital-first entity, enabling incorporators to register, verify their identities and complete all necessary formalities online in 24 hours. In terms of talent, EU-Inc will address the varying treatment of stock options across EU countries, introducing a new system dubbed the "European Union Employee Share Option Pool," or ESOP. This will allow European startups to offer more competitive salary packages to prospective employees and retain talent. In addition, a harmonised framework for employee participation will allow for faster decision-making. Regarding the single market, EU-Inc will support businesses active in multiple jurisdictions without the need to set up permanent establishments or subsidiaries, while at the same time maintaining national prerogatives on taxation. It will take full advantage of existing tools such as the VAT one-stop shop.

Of course, there are also challenges associated with EU-Inc. It took 40 years for the Societas Europea to be approved, as member states are hesitant to give up control over these aspects, and its success is far from demonstrated. Gaining the consensus of member states early on will be crucial. And the devil will be in the details, particularly in areas where greater advantages can be realised, such as the treatment of stock options, taxation and employment.

30 See https://www.eu-inc.org/.

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