ESNA Compendium

Building a competitive Europe: the role of startup and scaleup ecosystems

Volume: Investment

ESNA Compendium

Volume II: Investment

Building a competitive Europe: the role of startup and scaleup ecosystems

Published by the Europe Startup Nations Alliance, Associação.

Europe Startup Nations Alliance
Avenida da República, 79A
1069-218 Lisboa, Portugal

This is a publication by the Network and Strategic Initiatives Department.

About ESNA

Founded as a direct result of the EU Startup Nations Standard of Excellence Ministerial Declaration in March 2021, ESNA is committed to transforming Europe's startup landscape by fostering a robust, interconnected, and competitive entrepreneurial environment within Europe, that drives innovation and economic prosperity across the continent.

About the Network and Strategic Initiatives Department

The Network and Strategic Initiatives Department intends to harness the startup ecosystem stakeholders' network to support on policy trends, strategies and initiatives that are aligned with the achievement of bringing Europe to the forefront of the global startup ecosystem.

Disclaimer

Views and opinions expressed in this document do not necessarily reflect the position of the European Union on the topics covered in this report. The insights presented in this publication are based on desk research and expert dialogue, and the content is independent of ESNA's institutional viewpoint.

Network & Strategic Initiatives Department*

Lead author: **Carolina Rossi**

Project team: **Marine Desoche**, **Sebastião Ribeiro**

Main Contributors

Advisory Board: **André Sapir, Paulo Andrez, Tatjana Zabasu Mikuž, Thaleia Misailidou, Thijs Povel** (Working Group Chairman)

ESNA: **Arthur Jordão, Linda Capusa**

Graphic Design: **Pedro Carvalho**

Supported by insights and data from: Business Angels Europe (BAE), European Business Angels Network (EBAN), Invest Europe, the Innovation Radar Bridge Consortium (Dealroom.co,Dealflow.eu, EU Startups).

**N&SI Department led the development of this document, from research design and interviews to strategic analysis, drafting, and final editorial direction. Their leadership and deep understanding of the European startup ecosystem were central in shaping the recommendations made in this Volume.*

PRR Plano de Recuperação e Resiliência · REPÚBLICA PORTUGUESA · Financiado pela União Europeia NextGenerationEU

Index

Tables Index

Foreword

In an era marked by rapid technological advances and evolving market dynamics, the vitality of the European startup ecosystem is a cornerstone of our economic future. The forthcoming EU Startup and Scaleup Strategy will be critical in supporting and driving European innovation to new heights. The Investment Volume presented here represents a crucial component of that effort, a strategic dive to address the pressing longstanding investment challenges that the startup ecosystem faces today. Following the foundational work laid out in the ESNA Compendium, this document is a vital part of a series of volumes that delve into the five strategic pillars essential for the EU Startup and Scaleup Strategy. These guidelines connect EU-level ambitious objectives with actionable solutions at the national level. Built around three key investment actions - focusing on increasing allocation of pension and insurance funds to Europe venture capital, encouraging investments through tax incentives, and updating public funding strategies for innovation - it offers concrete steps forward, instilled with the collective wisdom of our Advisory Board which has served as a central conduit for market insights. These recommendations emerged from a collaborative process steeped in cross-sector strategic thinking and reinforced by the collective expertise of the Network & Strategic Initiatives Department.

The richness of this Volume emerges from a dual vision: one that harmonises strategic foresight and other grounded in empirical data. Leveraging collaborative insights and best practices, it delineates a clear path towards a vibrant and resilient investment landscape that not only nurtures novel ideas but also equips them with the capital necessary to thrive. As you delve into the sections of this Investment Volume, you will encounter a carefully structured narrative that guides you from foundational context to actionable recommendations. Each segment is designed to provide clarity and coherence, ultimately concluding with a phased roadmap aimed at fostering sustainable growth throughout Europe's startup ecosystem.

In addition to detailing these strategic actions, this Volume provides a structured framework with comparative tables of national policies. These tools offer tangible support for understanding the relationships between practices, objectives, and potential outcomes, facilitating informed decision-making. Ultimately, this document aspires to deploy these insights to enhance investment in innovation, ensure sustainable growth, and create a lasting impact on the landscape of European entrepreneurship.

It is our hope that through collaboration, insight, and strategic action, we can unlock the full potential of our entrepreneurial spirit.

Let's embark on this journey towards a thriving European startup environment, driven by a shared vision of inclusive growth and lasting impact.

Arthur Jordão
Executive Director, ESNA

Executive Summary

This document is the continuation of ESNA's Compendium. Published in November 2024, this publication analyses Europe's past, present and future by acknowledging the previous 20 years within the European startup ecosystem. This policy-centred document is one of a five-part series of volumes, each of them focusing on a strategic pillar that will be instrumental in the upcoming EU Startup and Scaleup Strategy (Investment, Red Tape, Entrepreneurial Culture, Talent, and IP & Tech Transfer).

Through a dual vision – both strategic and grounded in empirical data – this Volume maps a clear pathway with the support of best practices, roadmaps, KPIs, and tangible policy levers. This is the result of a series of internal correlation analyses on the current European setting - not only at an EU level, but also with a national perspective.

It suggests three major investment actions that are both evidence-based and forward-looking:

Action #1
Pension funds & insurance funds allocation to European venture capital

Action #2
Tax incentives for angel investment – connecting business angels, corporates and VCs with the ecosystem

Action #3
Updating the public funding strategy for innovative companies

---

These actions were developed thanks to the strong guidance of ESNA's Advisory Board, acting as our voice from the market. The actions are rooted in cross-sector strategic thinking and collaborative insights stemming from the Network & Strategic Initiative Department.

Finally, this document acts as a backbone for a future aligned with ESNA's vision to position Europe to the forefront of the global startup ecosystem.

Document Structure

This Volume is structured to progressively guide the reader from context to action, aligning strategic insights with operational feasibility:
Each section lays a foundation towards

1. Setting the Scene
Investor's perspective, Europe's innovation ROI and its risk mindset, cost of failure and capital markets narrative – evolving from a Capital Market Union to a Savings and Investment Union.

2. Mapping Europe
EU-level investment policies and frameworks.

3. Advisory Board Insights
Deep dives into three proposed actions, supported by evidence and benchmarking.

4. National Policy Mapping
Comparative landscape across EU Member States.

5. Suggested Solutions and KPIs
Policy actions, expected impact, and performance indicators.

6. Final Recommendations
A phased roadmap for implementation and three-year strategy alignment.

a comprehensive vision for unlocking Europe's investment potential and positioning its startup ecosystem for sustainable growth.

ESNA Volumes' methodology

Key contributor	Strategic thinking
ESNA Compendium	**Foresight analysis:** identifying signals of change across sectors. **Horizon scanning:** tracking innovation across the EU and globally. **Strategic intelligence gathering:** drawn from expert white papers, market reports, and innovation indexes. **Systems thinking:** mapping how different actors and policies interact within the innovation ecosystem.
Advisory Board meetings	**Design sprints:** framing the problem and rapidly iterating solution pathways (online and in-person AB meetings). **Structured expert:** forecasting and consensus building. **Sharing insights:** 1:1 meetings to share inputs and follow up on actions content.
ESNA Partners contribution	**Participatory co-creation:** involving stakeholders in defining problems and solution framing. **Ecosystem mapping:** identifying roles, interdependencies, and resource flows. **Asset-based thinking:** leveraging strengths already present in the ecosystem. **Knowledge exchange labs:** facilitating cross-border learnings and policy co-design.
Best Practices Catalogue	**Benchmarking & comparative analysis:** identifying global frontrunners and patterns of success. **Case study methodology:** deep dives into implementation and context with qualitative insights. **Expected impact on the startup ecosystem:** researching of expected impact each practice can bring to the ecosystem.
Desk Research	**Policy review & legal scan:** understanding institutional context.

A strategic and deep dive volume with an overview of the European startup ecosystem and concrete actions to the challenge faced

Action #1
Pension funds & insurance funds allocation to European venture capital

Action #2
Tax incentives for angel investment – connecting business angels, corporates and VCs with the ecosystem

Action #3
Updating public funding strategy for Innovative Companies

I. Setting the Scene

Key themes

- Framing the past 20 years through an investor's view
- Europe's historical power in industrialisation
- The return of investment of European Innovation
- Reminder: approaching risk under an investor's rhetoric
- Capital Market Union: shifts & evolution of the narrative
- Fragmentation and systemic barriers

Framing the past 20 years through an investor's view

In the past 20 years, especially after the financial crisis of 2008, Europe has witnessed a growth on startups and scaleups companies. The ecosystem has become stronger and a series of manifestos, documents and papers have been released to materialise this push. Public funding programmes and initiatives have been put in place (as will later be elaborated in this document) - however money allocated either directly to new companies or venture funds is still not enough when it comes to supporting a more mature and competitive startup and scaleup ecosystem within Europe.

Furthermore, flexibility in terms of regulation and documentation, as well as more harmonised policies to operate under the logic of a Single Market are also constantly under discussion, especially during the

Snapshot of the evolution of the startup ecosystem over the last 20 years

To understand the evolution of these 20 years in more depth, it is necessary to separate Europe into different stages of growth. To do so, a brief history of this phenomenon will be provided in this chapter.

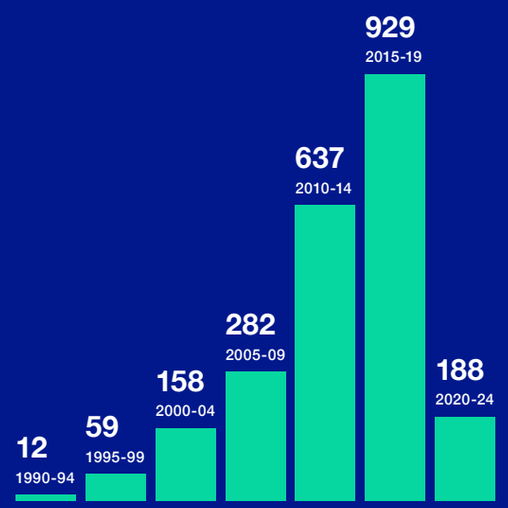


Figure 1. Number of EU - Backed startups with 1M+ total VC investment, per cohort.
Source: dealroom.co, August 2024

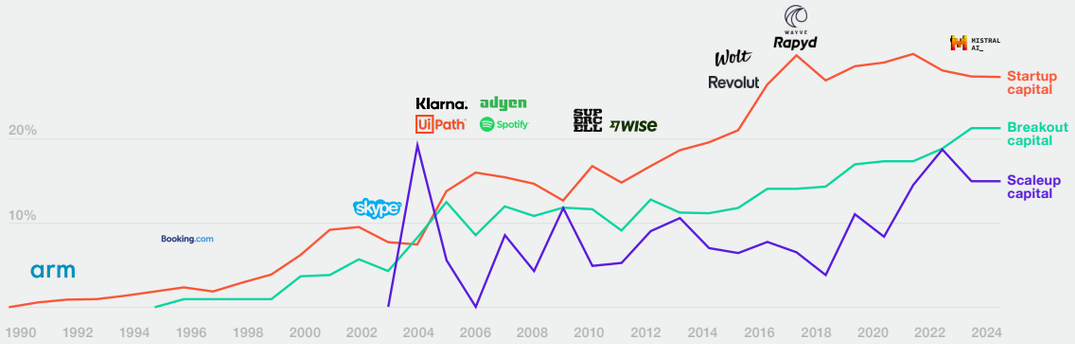


Figure 2. Europe's Venture Capital had a late start

Source: "Accelerating Europe – Part 1 of 3 – The State of European Innovation and Why It Matters", January 2025

past year. Following this logic, while legal fragmentation exists between the 27 different Member States, there is also a financial fragmentation - this is one of the main reasons why the Capital Market Union (CMU) has been framed as a major pillar to address.

Needs have now shifted to certain verticals that are mostly aligned with strategic policies and EU strategies[1]. Additionally, when considering the amount of capital allocated to research and development (R&D) in critical industries, European companies outside tech are by far the biggest R&D spenders. Before 2008, European companies faced a stark disadvantage in attracting venture capital. Despite having a larger talent pool, European startups often struggle due to limited VC funding. This gap has been partially bridged by US investors stepping in to fund European startups, however structural changes are needed to bolster Europe's venture capital landscape.

Investment policies and strategies run by the European Innovation Council (EIC) and the European Investment Bank (EIB) to support startup-led innovation in the tech sector have been long documented (See Chapter II: "Mapping Europe: EU Policy Landscape).

Evidence shows that Europe allocates a relevant amount of funding to innovation, however only 5% of the total (225 billion euros as part of the EU Innovation funding, as highlighted by the Inovation Radar Bridge consortium report[2]) actually goes to startups. It demonstrates that the percentage of funding granted to startups is still low, especially when analysing the usual positive return of investment for this type of companies.

Therefore, having a clear understanding of Europe's position regarding investment in the startup and scaleup landscape is fundamental. This chapter will provide evidence laying a foundation for this document as per:

A · The reasoning behind the selection of solutions and their potential impact.

B · A practical approach to improve the startup and scaleup ecosystem: expanding the amount of capital flowing within the region, assessing the possibilities to create funds-of-funds or specific tax incentives for stakeholders willing to inject cash-flow into the ecosystem.

C · Removing constraints that may exist for pension and insurance funds to allocate capital into riskier investments (either venture capital and/or private equity) or more flexible co-investment schemes.

D · The overarching goal to achieve a stronger Market Union, thereby acknowledging the paradigm shift of the past few years, from a more banking and financial-focused narrative to a more united and single market approach.

Fragmentation plays against Europe to operate as a single market. It is clear that Europeans have been navigating complexity by managing 24 different languages, 27 legal frameworks and 9 different currencies. The relevance of this point demonstrates that by fostering specific methods recommended here, we could alleviate the constraints related to this fragmented ecosystem and move forward to achieve a better and more startup-friendly environment in Europe.

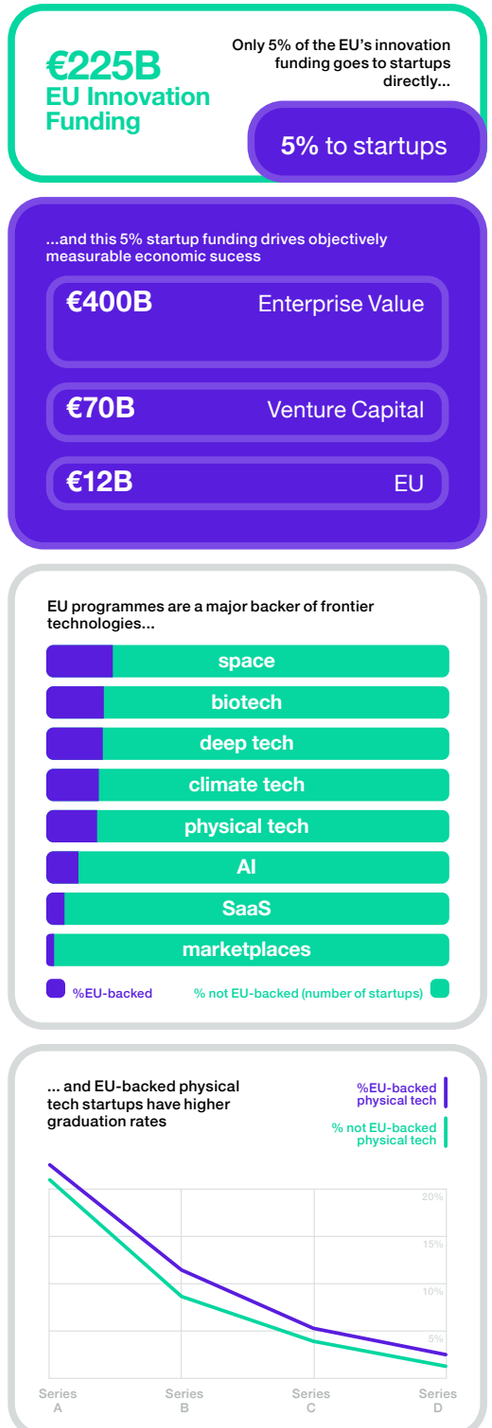


Figure 3. Main highlights of startup funding.

Source: "Startups backed by the EU's Framework Programmes", March 2025.

[1] Further details on critical industries such as defence and climate change may be found at the end of this Chapter, From Capital Market Union to Savings and Investments Union strategy: an evolution of the narrative.

[2] Innovation Rada Bridge Consortium report "The State of Europe Innovation and Why does it Matter?"

The return on investment of European innovation

In the book Europe, *Tech and War* by Oliver Coste published in 2024, he recalls the distinction between incremental versus disruptive innovation. The incremental one follows improvements made to be more efficient (it is the case of the Airbus A320 Neo), versus disruptive innovation, which takes many failures before achieving one successful project [3].

The chronological retrospective of the industrial revolutions is also mentioned in the book, where technology and information are the major factors of the one currently taking place. It is worth acknowledging that Europe once was the leader in previous industrial revolutions, such as the steam engine in the 1800s and combustion engine in the 1900s. Later, in the 2000s, technology and information became dominant forces, with the United States emerging as a clear global leader. We are now entering a new reality, as mentioned by Coste, where China may be taking the lead. It has now adopted France's industrial policies from the 1960s-1970s, applying monopolistic environments, guaranteed medium-term markets and close to bottomless public funding. It can be argued that the whole of Europe should consider going back to this model, however the following points are worth keeping in mind:

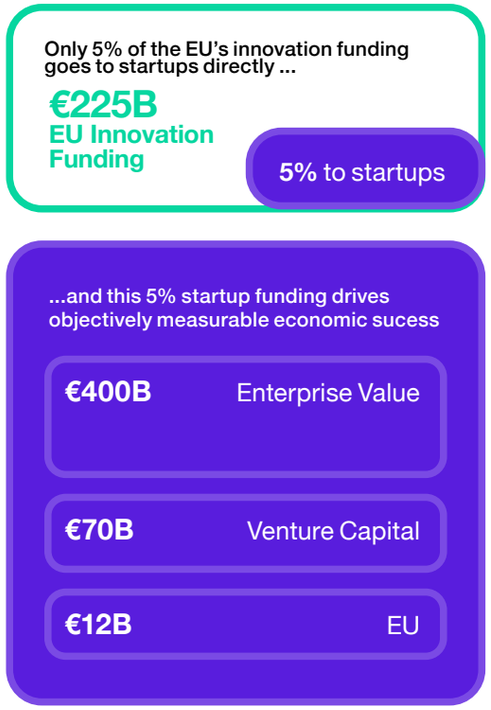


Figure 4. EU's innovation funding.
Source: "Startups backed by the EU's Framework Programmes", March 2025.

- These policies are implemented in a way to mitigate a country's initial delay in developing a technology. This was the case in post-World War II's France, and could be applied to e.g. semiconductors, operating systems, or cloud computing. However, it cannot be applied to disruptive innovation such as AI or quantum.

- These measures can only be successful in a large market. EU Member States and their 449+ millions of inhabitants generate a nominal GDP of approximately 17.935 trillion euros.

- Considering the 'Faire return' clause, money coming directly from the Member States to be injected in the EU budget must then be reinvested in national companies.

Competitiveness highlights - China

1. Telecom evolution:

- 2000s: Europe led with, Alcatel, Ericsson, Nokia, Siemens
- US: Motorola, Lucent
- China rising: Huawei and ZTE began gaining ground

2. Strategic industrial policy – *Made in China 2025*

- 2025: Aim to become a major manufacturing power
- 2035: Targeted as a global manufacturing power
- 2049: Vision to be the leading global manufacturing power

Key sectors targeted:

- biomedicine, new materials, agriculture
- energy equipment & saving technologies
- next-gen iot, robotics, aviation & space
- maritime engineering, advanced railway transport

3. A large population and market

- China is projected to nearly double US STEM PhD graduates by 2025
- China's population is an estimated 1.4+ million (source World Bank)

Framework programmes in the last 40 years

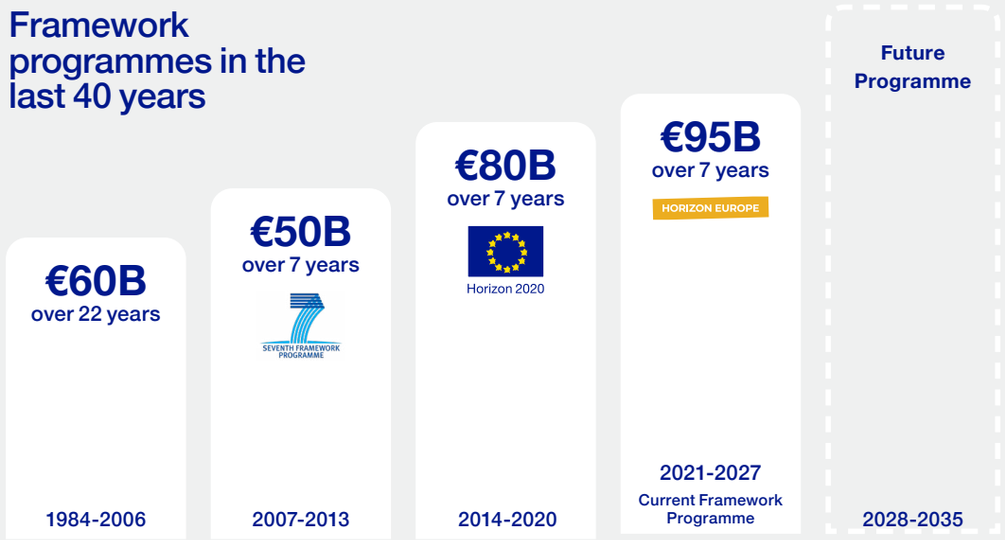


Figure 5. Horizon Europe framework programmes.
Source: "Startups backed by the EU's Framework Programmes", March 2025.

[3] Europe, Tech and War. Oliver Coste.

4. R&D investment

- China's GDP share on R&D surpassed the EU in 2014
- Now approaching US levels

5. Intellectual Property – quantum patents (2018)

- China: 1,157 patents/year
- US: 363 patents/year
- UK: 29 patents/year

While Europe led the first two industrial revolutions, it has fallen behind in the third industrial revolution (in the tech/IT era) and now faces the risk of becoming even less relevant as the US dominates and China rises in the 4th wave (AI, IoT, quantum, biotech etc.). Therefore, it is crucial to frame industrial revolutions as intertwined with geopolitical changes.

A series of documents, manifestos and reports were published all around Europe in 2024, highlighting the differences specific to Europe when it comes to the scalability of our startups, such as how many of them reach an IPO or how many of them scale to become global players.

As mentioned in the Innovation Radar Bridge consortium Report[4] that came out this year, public funding support for innovation has been growing constantly since 1984. However, just 5% of the total EU innovation funding goes to startups, even though they generate a great return per investment, as previously mentioned.

[4] Innovation Radar Bridge Consortium report "The State of Europe Innovation and Why does it Matter?", published on March 3rd 2025.

Europe is now producing unicorns – companies valued at $1 billion at the same rate as the United States but is missing the scale of investments, due to a lack of capital. Dealroom.co's analysis shows how, after a 30-year late start, VC-backed startups are claiming a growing share of global new enterprise value

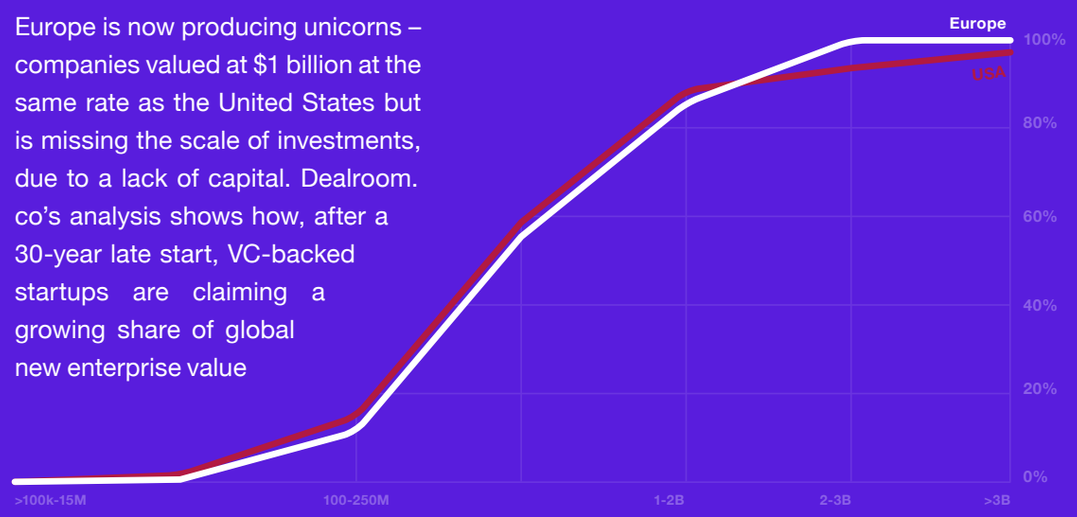


Figure 6. Europe and the US create unicorns at the same rate.
Source: dealroom.co

Europe has a significant VC investment gap at every stage, and the gap grows the later the stage gets

At an early stage - what is also known as "Startup capital" ($0-15M) - American startups raised over 35% more capital than the European ones. This gap increases later on when jumping to "breakout capital" (round from $15-100M), and when referring to scalability the gap gets even wider. When it comes to rounds that amount to higher than $100M, founders from the United States raised 667% more money than their European counterparts[5].

[5] Note: VC investment by stage, 2024 (IRB Report)

The startup ecosystem has not necessarily been as strong as the industrial legacy of Europe. As it will be further developed in this Volume, while Europe is generating unicorns at the same rate as the United States is today, there is a 30 year late start in the Venture Capital Industry due to the general environment of the startup and scaleup ecosystem.

There is a stark contrast between Europe and the US when it comes to startup activity and investment. Despite Europe's large population and strong academic and industrial foundations, its startup ecosystem significantly lags behind the US in both number and valuation of unicorns (startups valued at over $1 billion). For example, France has 33 unicorns with a combined valuation of €77 billion, while the UK has 61 unicorns worth €271 billion. This disparity is even more pronounced when comparing the entire European Union to the United States.

The main difference lies, not in the possibility for companies to operate efficiently, but rather in the absolute amount of venture capital flowing into the market. Startups in the Silicon Valley attract a significantly higher amount of investment than startups

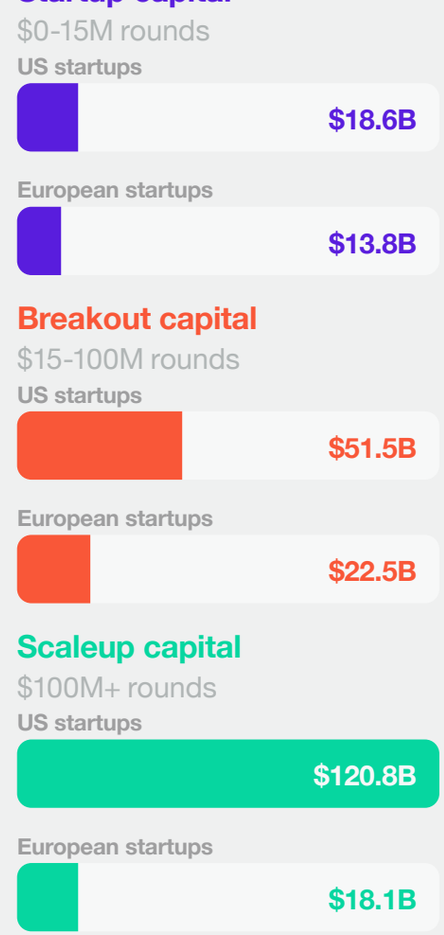


Figure 7. VC by stage.
Source: "Accelerating Europe – Part 1 of 3 – The State of European Innovation and Why It Matters", Janruary 2025.

in Europe. European Startups have the same capital efficiency in turning money raised into unicorns as their American counterparts (same output for the same input). What makes a difference is the amount of capital that flows within Europe allocated into risk capital, angel investment or venture capital.

The European legacy in industrialisation is not sufficient to propel the startup ecosystem, however there are opportunities.

Before these last two decades, Europe was highly recognised for its legacy as a region where innovation at an industrial level was a seal of excellence. European companies have been applying a logic of consortia, which has become a tradition to collaborate and move forward.

A clear example comes from the late 1960s and early 1970s where industrial power-houses drove major innovation, as seen in cases such as aircraft manufacturers. The establishment of Airbus Industrie GIE, created by countries such as France and Germany, and later Spain and the United Kingdom, showcases how a commercial organisation created by joining forces is still running today. It came to life with the support of public money, following a logic that was not only happening in Europe, but also in the United States.

It is well known that major inventions part of today's technological landscape come from publicly supported ventures, especially in places such as the United States, for example the GPS (the Global Positioning System; developed by the United States Department of Defence in the 1970s).

This case is one of many that highlights the need for new technologies to emerge from a collaborative effort among military engineers and scientists, something that Europe's startup and scaleup ecosystem has been looking into even deeper in the past three years.

This is notably exemplified by the EUDIS Business Accelerator, a programme that supports European startups and scaleups that wish to focus on the defence industry. In this context, the amount of public funding available for research and innovation in Europe becomes even more relevant.

Europe is now producing unicorns - companies valued at $1 billion virtually - at the same rate as the US but is missing out on the scale of investments. The value of European startups, even considering these gaps, keeps on growing - already reaching almost 20% of global shares. While some of this growth could be argued by some as a factor of "stagnation", the overall reality appears positive when comparing the periods between 2010-2019 and 2020-2024. A recent analysis shows how, after a 30-year late start, VC-backed startups are claiming a growing share of global new enterprise value.

The investment gap: in 2023, US startups attracted around $150 billion, compared to a mere $50 billion in the EU—three times less. Coste argues that if we consider Europe's population size, the region should theoretically be capable of attracting a similar volume of start-up investment as the US. This points to structural issues within Europe's capital markets, policy environment, and investor mindset, which collectively hinder the continent's ability to scale innovation and compete globally in the tech arena.

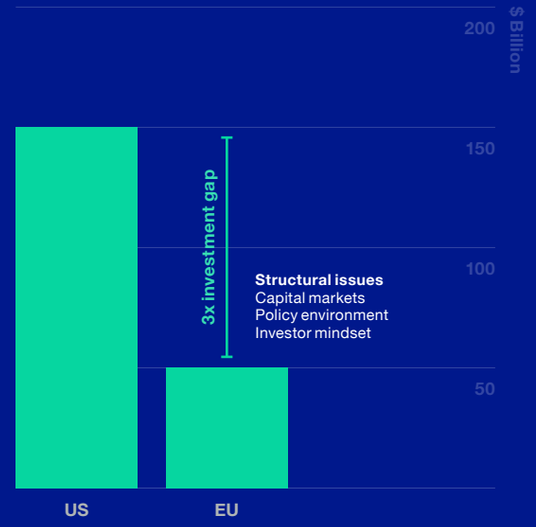


Figure 9. startup investment in 2023, in billion dollars
Source: Dealroom

Enterprise value of VC-backed companies, by cohort

After a 30 year late start, Europe's VC backed startups are taking a growing share of global new enterprise value

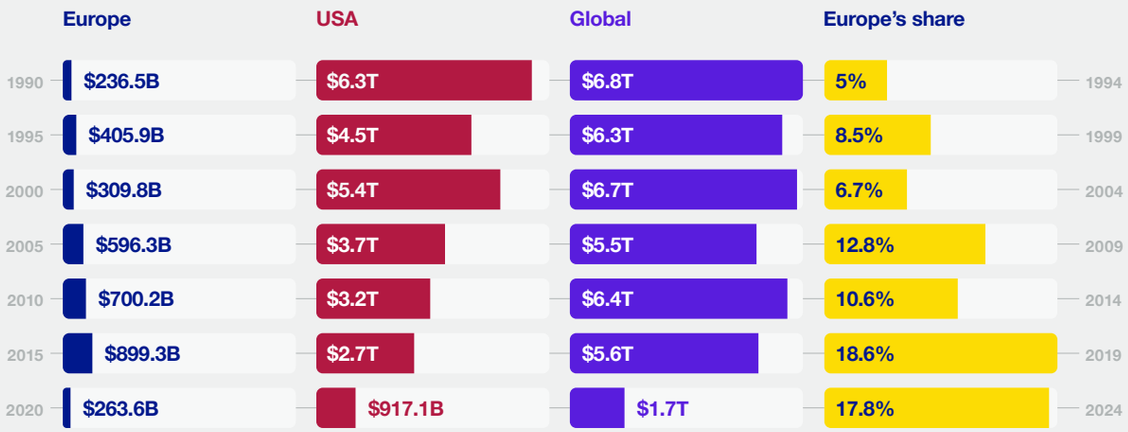


Figure 8. Enterprise value of VC-backed companies by cohort
Source: "The State of European innovation and Why it matters".

Risk Mindset approach under the investor's rhetoric

Along with this global comparison, as mentioned in ESNA's Compendium, Europe has all the conditions to set up a strong startup ecosystem that can regain its power as a hub of innovation, akin to what happened during the 1960s and 1970s with the industrial boom[6].

> *"European company leaders have spent their first 10 to 20 professional years focusing on meticulously chosen projects to be profitable in Europe, therefore limiting risk-taking. Consequently, by the time they ascent to leadership positions, they have ingrained a "culture" of extreme caution towards risk-taking.[7]"*

Europe has 40% more software developers than the United States, which is a fundamental factor in having more startups with cutting-edge technology coming from Europe to the world. At the same time, it is also well-known that Europe is already a hub for early-stage startups; Europe created more startups from 2014 to 2023 compared to the US (35,000 early-stage startups over this period[8]), despite the differences in the amount of cash-flow available, regulation constraints, as well as the varying participation of corporate or big companies in the process of investing

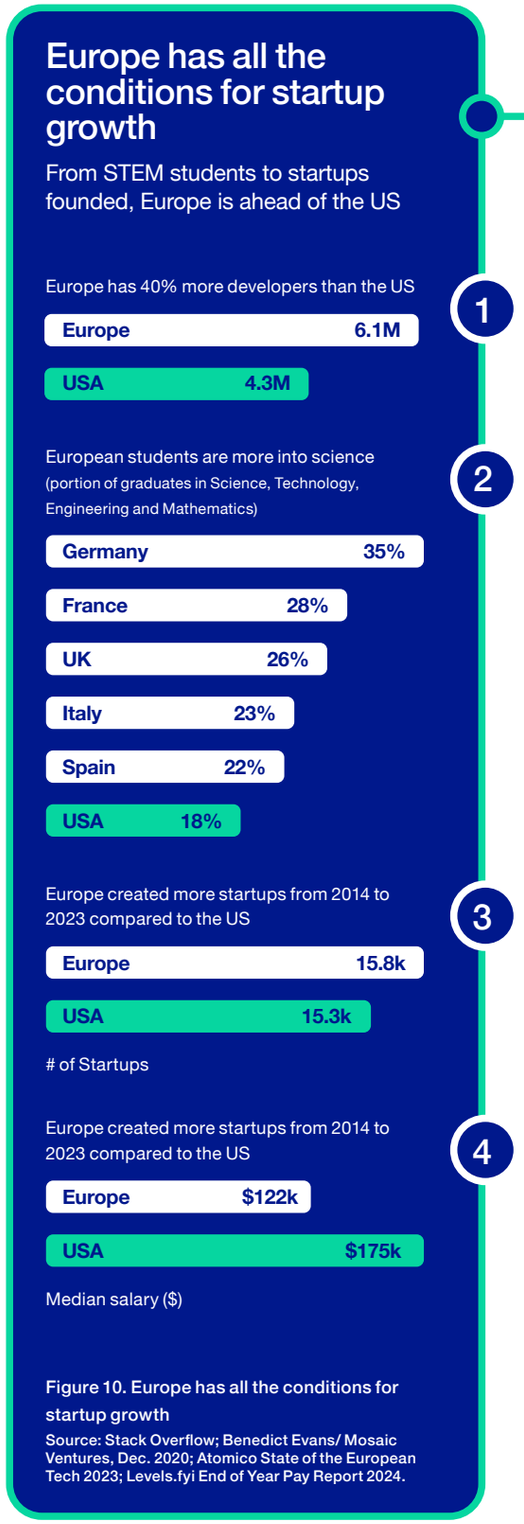


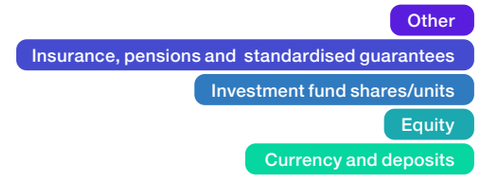
Figure 10. Europe has all the conditions for startup growth

Source: Stack Overflow; Benedict Evans/ Mosaic Ventures, Dec. 2020; Atomico State of the European Tech 2023; Levels.fyi End of Year Pay Report 2024.

Both Europe and the US begin with a high number of startups, with Europe slightly leading. Around 16,000 startups are established in each region, indicating strong entrepreneurial activity.

in new ventures.

One of the ways risks can also be measured is based on the amount of money that is available for what are considered "riskiest" investments. In this case, a good example showcasing the current situation in terms of savings in Europe can be found in the following image:



European households have a sufficiently high savings rate but prefer cash over long-term market investments; they end up with 2.7x lower financial assets

Per capita household financial assets in 2022

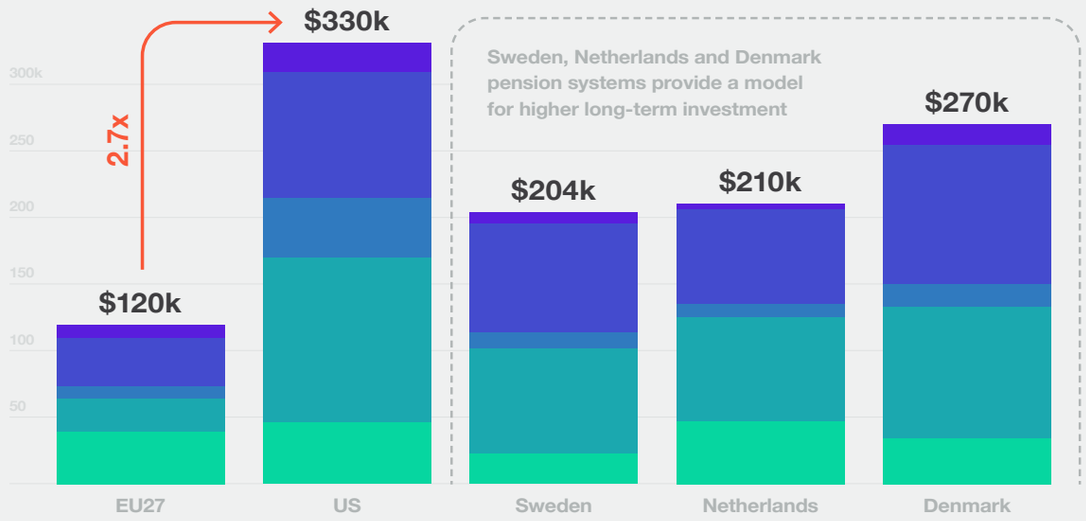


Figure 11. European households have a sufficiently high savings rate but prefer cash over long-term market investments; they end up with 2.7x lower financial assets.

Source: "Accelerating Europe – Part 1 of 3 – The State of European Innovation and Why It Matters", January 2025.

[6] Risky tech projects start more easily in the US than in Europe; this concept is extended on Chapter V.

[7] Europe, Tech and War. Oliver Coste.

[8] Inovation Radar Bridge consortium.

This frames well the relationship Europeans have with risk, which has been studied for decades. The Hofstede model is a foundational concept to assess cultures and their specificities, and is often applied in business environment. One of the points assessed through this method is uncertainty avoidance. Hofstede and his team created a framework to assess countries' relationships to uncertainty, and therefore to risk. Its main features can be found in the table below.

Each country's relationship to risk is assessed with a score ranking from 0 (indicating a certain tolerance for ambiguity) to 120 (for societies that lean towards structure).

Weak Uncertainty Avoidance	Strong Uncertainty Avoidance
Few and general laws or unwritten rules	Many and precise laws or unwritten rules
If laws cannot be respected, they should be changed	Laws are necessary, even if they cannot be respected
Fast result in case of appeal to justice	Slow result in case of appeal to justice
Citizens are competent toward authorities	Citizens are incompetent toward authorities
Citizen protest is acceptable	Citizen protest should be repressed
Civil servants do not have law degrees	Civil servants have law degrees
Civil servants are positive toward the political process	Civil servants are negative toward the political process
Citizens are interested in politics	Citizens are not interested in politics
Citizens trust politicians, civil servants, and the legal system	Citizens are negative toward politicians, civil servants, and the legal system
There is high participation in voluntary associations and movements	There is low participation in voluntary associations and movements
The burden of proof for identifying a citizen is on the authorities	Citizens should be able to identity themselves at al times
Outside observers perceive less corruption	Outside observers perceive more corruption
Liberalism	Conservatism, law and order
Positive attitudes toward young people	Negative attitudes toward young people
Tolerance, even of extreme ideas	Extremism and repression of extremism

Figure 12. *Key differences between weak and strong uncertainty-avoidance societies*
Source: Cultures and Organizations: Software of the Mind by Geert Hofstede & Gert Jan Hofstede

As seen below, most European countries tend to score higher, with only Denmark, Finland, Ireland, the Netherlands, Slovakia and Sweden scoring below 60. This suggests that Nordic countries tend to be more flexible, as their scores are closer to a country like the US – whose score is 46.

Country	Uncertainty Avoidance
Austria	70
Belgium	94
Bulgaria	85
Croatia	80
Cyprus	90 (est.)
Czechia	74
Denmark	23
Estonia	60
Finland	59
France	86
Germany	65
Greece	100
Hungary	82
Ireland	35
Italy	75
Latvia	63
Lithuania	65
Luxembourg	70
Malta	96
Netherlands	53
Poland	93
Portugal	100
Romania	90
Slovakia	51
Slovenia	88
Spain	86
Sweden	29

Figure 13. Countries' relationship to risk.
Source: geerthofstede.com

While the table on the left provides a cultural outlook on Europeans' attitude towards uncertainty, the graph below focuses on risk appetite when it comes to making investment-related decisions. Its approach is centred on financial risk, and how it is handled in the most populated European countries. They both complete each other by displaying the intricacies of societal mindset and investment-related behaviours observed across the continent.

In conclusion, Europe provides an excellent foundation for innovators: a robust framework for public grants, a large pool of talented startups, and decades of industrial pre-eminence, to name a few. However, it is the allocation of funding and the overall mindset that make it more difficult to take the next step. While actually reaching a paradigm shift in terms of risk will take some time, we can act concretely when it comes to fostering private investment - this will be more broadly detailed in the rest of the Volume.

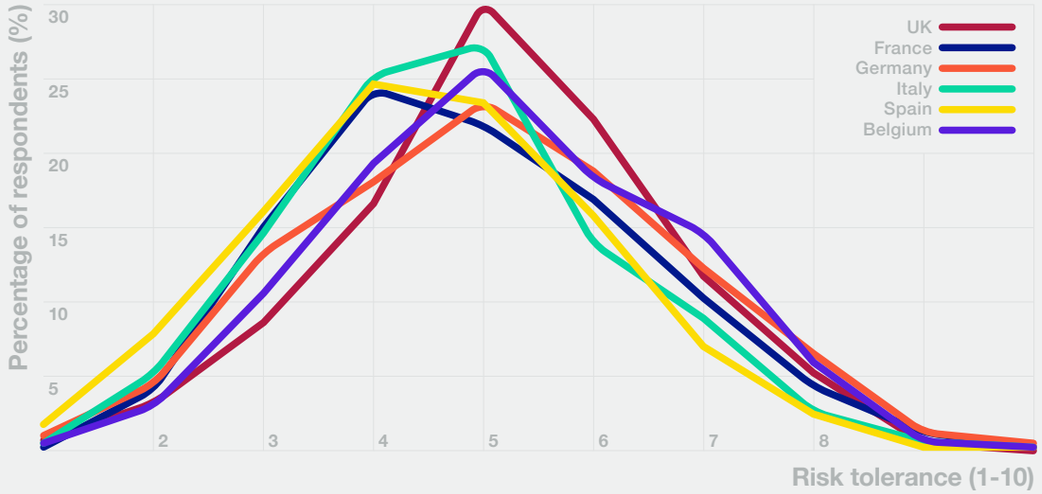


Figure 14. Cross-country comparison of the distribution of attitude to risk scores
Source: 2023 The Authors. International Journal of Finance & Economics published by John Wiley & Sons Ltd.

The following section will be focusing on the Capital Market Union, which notably intends to provide a framework that unlocks access to capital for businesses. This implies opening up to risk capital, and therefore igniting a cultural shift as mentioned in this chapter. We will be exploring how market fragmentation is impacting the current European investment ecosystem, and what has been implemented to mitigate it.

From Capital Market Union to Savings and Investments Union strategy: an evolution of the narrative

The Capital Market Union (CMU) narrative has been evolving ever since it first started to be commonplace for the most relevant financial and economic stakeholders in Europe. It had to pivot between 2015 and 2024, as stated in the report "Capital Market Union: a Deep Dive[9]" due to changes in macroeconomic conditions, EU policy priorities, geopolitical events and other major changes such as Brexit and Covid-19. In early years (2015), the discussion was "centred on banking, financial stability and investor topics, with terms such as 'banking' and 'crisis' dominating the discourse". Today, as stated in this same paper, the focus has now shifted to market integration, where the terms "single", "members", "states" are more common, highlighting a unified financial framework as a main point of unity. As stated in this Volume, understanding how we can unite and fight against market fragmentation, and therefore financial fragmentation, is key. Europe is still lagging

[9] Occasional Paper Series: Capital Market Union: A deep dive

when it comes to available risk capital, therefore the concrete actions the Member States can take to solve this issue and unlock significant amounts of investment capital are correlated. They are directly tied to the logic of a Capital Market Union (CMU) and are a concrete step forward to improve the general market conditions for the startup and scaleup ecosystem. As noticed by Oliver Coste in his book – in Europe entrepreneurs seek funds, while in the US investors seek entrepreneurs.

Fragmentation, as previously defined in other chapters, stems from the fact that the EU's 27 Member States have diverse policies and languages, among other barriers. This makes it challenging for founders to scale their businesses - unlike the United States, which offer a unified regulatory and operational environment. As outlined in the Letta Report[10], the establishment of a fully operational Single Market is a necessity for Europe's economic integration and a thriving startup ecosystem.

Different publications have been revolving around the CMU. In 2024, as stated in the recent ECB Occasional Paper Series No. 369[11], a Task Force of French public and private sector leaders (mandated by the French Ministry of Finance and chaired by Christian Noyer), set out four key recommendations for the CMU. In the same year, former ECB President Mario Draghi launched his well-known report focused on competitiveness, supporting the publication for a strong Single Market prepared by the former

[10] Occasional Paper Series: Capital Market Union: A deep dive.

[11] Enrico Letta - Much more than a market (April 2024)

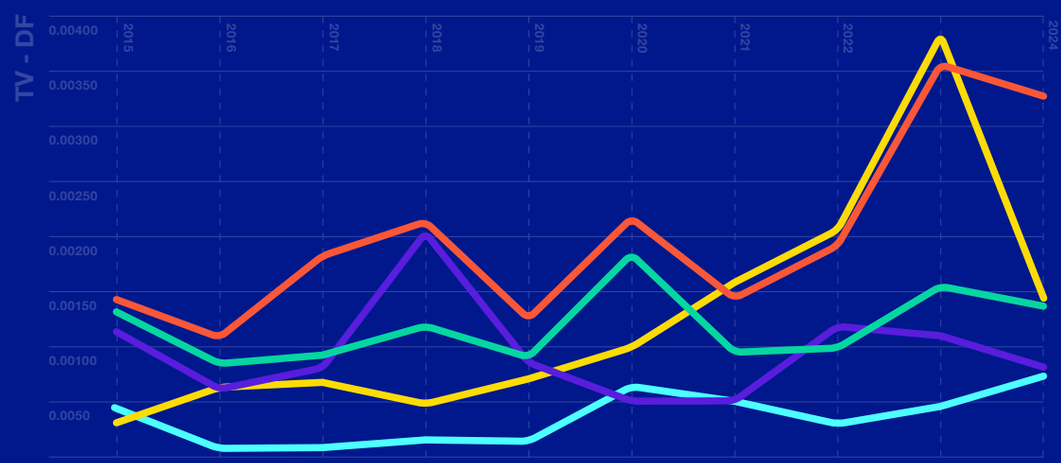


Figure 15. CMU narrative over time
Source: Table from Occasional Paper Series, Capital markets union: a deep dive, Five measures to foster a single market for capita by Alexia-Styliani Arampatzi, Rebecca Christie, Johanne Evrard, Laura Parisi, Clément Rouveyrol, Fons van Overbeek

Italian Prime Minister, Enrico Letta. All reports focus on similar priorities. Some, however, are more high-level proposals while others are more specifically focused on how to move forward into a less fragmented financial market. To achieve this, the role of public investment, the creation of safe EU assets, and other practices may be of support, specifically when it comes to the connection with the startup and scaleup ecosystem. Relevant points can be highlighted in each of these reports. One topic clearly highlighted refers to Europe's lack of productivity investment. The challenges that the EU Competitiveness Compass is willing to solve - such as climate change, rapid technological advancements, and shifting geopolitical dynamics – require substantial investment. Under this same logic, and with a strong focus on defence, the Draghi report also comments that an additional €750-800 billion per year by 2030 is needed. Europe has €10 trillion accumulated in savings[12] held in low yield bank deposits. Meanwhile, SMEs and innovative companies cannot rely solely on traditional bank financing. Therefore, supporting new strategies for productivity investment must be a major objective for the next few years. This is one of the reasons why the Savings and Investment Union strategy was launched in March of 2025. It pledges to support new money allocation in sectors such as climate transition, innovation and defence. By doing so, this new mechanism will provide options for European citizen to have access to higher returns and prepare for their future, following a "European blueprint for savings and investments accounts or products for retail investors based on existing national best practices, including recommendations to Member States on the tax treatment for such investment accounts"[13].

The Savings and Investments Union serves as a key enabler in building a funding ecosystem that supports investments aligned with the EU's strategic priorities.

A significant portion of these investment requirements pertains to SMEs and innovative companies that cannot rely solely on traditional bank financing. By fostering integrated capital markets alongside a unified banking system, the Savings and Investments Union will play a crucial role in efficiently channelling savings into productive investments, strengthening Europe's financial resilience.

Eurogroup Priorities	Letta Report Recommendations	Noyer Report Recommendations	Draghi Report Recommendations
Targeted convergence of national corporate Insolvency frameworks	"Urgent need to take action" on harmonising insolvency regimes.	N/A	Harmonise the insolvency framework.
Better integrated market infrastructure	Create an EU stock exchange for "deep tech" to provide firms with equity funding at the IPO stage. Implement a single access point for public capital markets for smaller firms. Consolidation in the post-trading landscape to overcome barriers to cross-border investment, combined with harmonisation of rules and practices.	Convergence in national securities law to foster the possible consolidation of CSDs. Pursue reforms of T2S to (i) extend its remit to additional CSD functions and (i) support the settlement of financial instruments on DLT.	Foster centralisation in clearing and settlement. Create a single central counterparty platform (CCP) and a single central securities depository (CSD) for all security trades. Increase the appeal of European stock markets for IPOs and for companies after going public.
Improve conditions for investment in equity	Combine the European long-term investment funds (ELTIF) scheme with national tax incentives. Harmonise prudential frameworks for large insurance groups to tailor capital requirements to the risk profile of each entity.	N/A	Expand incentives for business 'angels' and private/ public seed capital investors. Eliminate taxation obstacles to cross-border investment. Assess the need to further reduce the Solvency II capital charges on equity investments held for the long term.
Wider use of longer-term savings and investment products, incl. pension schemes	Launch an EU-wide auto-enrolment Long-Term Savings Product in order to stimulate retail investments, leveraging tax incentives from Member States and enhancing the Pan-European Personal Pension Product.	Creating a European long-term savings product based on a decentralised "label" approach allowing Member States to create national products under this label based on certain criteria, including a long-term horizon, at least 80% allocation to European assets, a role for employers (e.g. auto-enrolment and co-investment) and an attractive tax regime.	Encourage retail investors through the offer of second pillar pension schemes, based on successful examples in Netherlands, Sweden, Denmark.
Develop attractive investment/ savings products for retail investors			

Table 1. Comparison of the Letta, Noyer and Draghi report recommendations on CMU with the Eurogroup priorities.

Sources: Table from Occasional Paper Series, Capital markets union: a deep dive, Five measures to foster a single market for capita by Alexia-Styliani Arampatzi, Rebecca Christie, Johanne Evrard, Laura Parisi, Clément Rouveyrol, Fons van Overbeek

Figure 16. The Savings and Investments Union Factsheet. ESNA.

How does the Savings and Investments Union differ from previous CMU Action Plans?

The Savings and Investments Union (SIU) builds upon past CMU initiatives and complements Banking Union efforts by taking a system-wide, integrated approach. Unlike earlier plans, the SIU explicitly links capital markets and banking to accelerate investment, support EU strategic priorities, and strengthen open strategic autonomy.

Key distinctions:

- **Whole-system focus:** Combines capital markets and banking to deepen market liquidity and channel savings more effectively.
- **Citizen-centred:** Prioritises retail investor participation to enhance individual financial resilience across life events.
- **National alignment:** Calls for coordinated action between the EU and Member States, with shared responsibility for implementation.
- **Strategic impact:** Anchored in broader

[12] Savings Union Official Document, March 19th, 2024.

[13] Savings and Investments Union Document, March 19th. 2025

goals - green and digital transitions, innovation - and long-term EU competitiveness.
The SIU marks a shift from market integration alone to a more inclusive, policy-driven financial strategy.

The hidden structural barrier to investment and innovation

After the constant focus on providing new investment to cutting-edge technologies, such as deep tech, and critical industries for Europe, e.g. defence, increased R&D spending, improvement of capital markets, and mitigation of market fragmentation must be addressed.
In the publication *"Europe, Tech and War"* a relevant point is introduced regarding the real cost (compared to the United States) that comes with restructuring and how this factor may be much more relevant when it comes to investment decision-making.
To support and verify this argument, the Employment Protection Legislation (EPL) is a primaty factor of Europe's relative underperformance in high-tech, high-risk innovation - particularly at the frontier of artificial intelligence, software, and semiconductors.
The impact of labour regulations on the European Venture Capital sphere has also been mentioned by Bozkaya & Kerr, 2014[14], confirming that strict labour regulations, combined with high labour volatility generated by radical innovation, hinder venture capital investment. Employment protection in Europe and venture capital investors may be particularly impacted by this, given the sectors in which they operate, and the dynamic business models of startups and scaleups.
Adding to this point, contrary to widespread narratives, many macroeconomic barriers typically mentioned - such as the lack of a pan-European capital market or entrepreneurial culture - are either overstated or less relevant in the context of radical innovation. This can be directly related to the *"profitability of high-risk tech companies, associated with high rates of failure, is very dependent on the cost of restructuring, which itself is driven by employment protection legislation"*[15]. Moreover, tech innovation increasingly occurs in sectors where traditional barriers - such as transport costs, customs duties, or even domestic market size - are largely irrelevant. Cloud services, AI infrastructures, and SaaS solutions operate globally from day one.
Additionally, while the EU may regulate "ex ante" with a preference for caution, the United States frequently compensates with strong legal enforcement "ex post". Yet, these differences are pale in comparison to the structural impact of employment protection and are a potential additional reason for higher concerns for any new tech and innovation investment.
In short, restructuring costs are approximately ten times higher in Western Europe than in the United States, which may significantly influence capital allocation decisions[16]. Investors in high-risk tech sectors, which is the case for the startup and scaleup ecosystem, rely on their ability to scale rapidly or reallocate resources. If the cost of failure is too high, the expected returns on large bets diminish - thereby reducing incentives to invest in European tech firms, as per Coste's view.
How is this topic related to this Volume? Cost structure affects not only large corporations but also distorts the venture capital model itself, which depends on a few outliers' successes to justify a broad portfolio of high-risk investments. If scaling becomes inefficient or failure is too expensive, investors will favour geographies where agility and capital efficiency are better aligned with innovation dynamics.
Therefore, employment protection regimes, while crucial for Europe's social model, must be critically assessed for their impact on innovation and growth-stage investment. Without any reform or creative mitigation strategies, EPL may continue to drive the innovation gap between Europe, the United States, and China - despite Europe's world-class talent, research infrastructure, and entrepreneurial ambition.

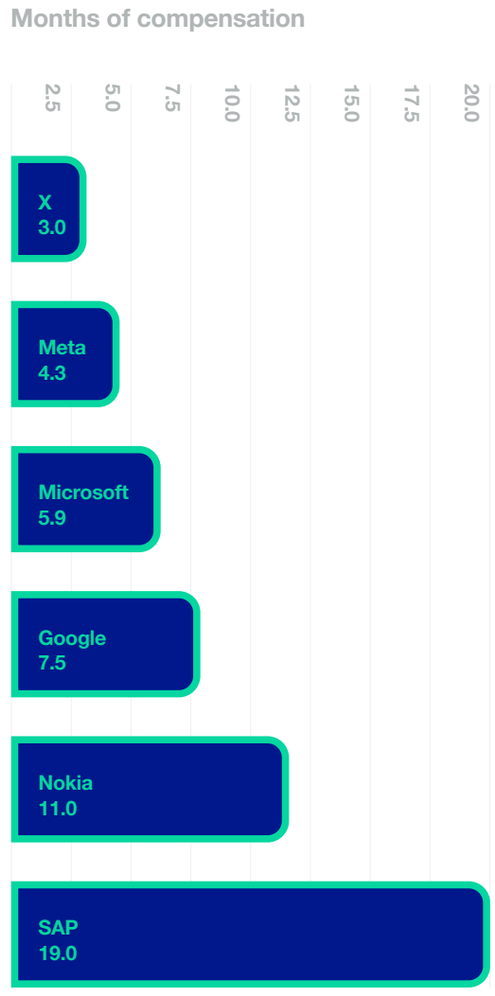


Figure 17. Restructuring cost by Company (Months of Compensation)

[14] Bozkaya, A., & Kerr, W. (2014). Labor Regulations and European Venture Capital. *Journal of Economics & Management Strategy*.

[15] Bocconi Paper: cost of failure and competitiveness in disruptive innovation, Yann Coatanlem, Oliver Coste.

[16] Idem

Main takeaways:

1. Europe's fragmented market still hinders growth

- Despite progress, market and financial fragmentation across 27 legal systems remains a major barrier to startup scalability.
- This fragmentation is a key reason behind the push for a Capital Market Union, aiming to unify and ease investment across EU borders.

2. Framing the past 20 years through an investor's view

- Since the 2008 financial crisis, Europe has increased private sector involvement and enhanced regulatory flexibility for startups.
- Success stories such as Bending Spoons, N26, Revolut and Skype show Europe's potential despite structural hurdles.
- However, Europe started its venture capital journey 30 years later than the US, leading to chronic undercapitalisation.

3. The investment gap: same efficiency, less capital

- **European startups are just as efficient as their US counterparts in creating unicorns, however:**
  - Early-stage (0–15M USD): US startups raise 50% more.
  - Breakout stage (15–100M): significant discrepancy.
  - Growth stage (>100M): US startups raise 567% more.
- **Europe has more startups (2014–2023), however with a lower survival rate due to limited capital inflow.**

4. Startups receive only 5% of EU innovation funding

- Out of €225 billion in EU innovation funding, just 5% reaches startups.
- This is disproportionate given their high return on investment.
- There is a clear need to redirect or increase capital toward early-stage innovation.

5. Key policy recommendations for strengthening the ecosystem

- Select high-impact solutions aligned with EU strategies.
- Expand regional capital flow through funds-of-funds and tax incentives.
- Remove legal constraints that limit pension and insurance funds from investing in venture capital.
- Shift from a fragmented finance-first model to a unified, startup-friendly Single Market.

6. Industrial legacy vs startup potential

- Europe's innovation roots lie in industrial collaboration (e.g., Airbus).
- But startup-driven innovation needs risk capital, agility, and cross-border financing, not just legacy consortia.
- Lessons from US defence-funded R&D (e.g., GPS) are influencing Europe's recent startup support logic.

7. Risk aversion and cultural challenges

- Cultural aversion to risk, shown in Hofstede's uncertainty avoidance index, limits startup momentum in many EU countries (e.g., Belgium 94, France 86).
- Leaders are often risk-averse due to traditional career paths focused on security and incremental gains.
- Encouraging a risk mindset is key to unlocking Europe's startup potential.

8. Europe Is becoming a unicorn factory

- Europe now produces unicorns at the same rate as the US.
- The challenge lies not in innovation or talent, rather than in the insufficient capital to scale.
- From 2020 to 2024, European VC-backed startups have significantly grown their share of global enterprise value.

9. Europe's Strengths and Hidden Potential

- Europe leads in startup creation.
- Despite systemic gaps, early-stage activity is vibrant, and the region is showing steady progress in value creation.
- The key barrier is capital allocation and risk-taking rather than capability or ambition.

10. Structural barriers beyond capital markets

- Restructuring costs, driven by strict employment protection laws, are a major hidden barrier in Europe.
- This discourages investment in risky innovation and reduces startup agility as cost of failure rises.
- These barriers distort the European venture capital model.

11. Policy alignment and systemic action

- Key reports urge harmonised EU rules, safe assets, and stronger public-private investment frameworks.
- Supportive pension regulations and targeted tax incentives are needed to boost venture capital.
- Tools such as convertible loans may help startups grow and attract institutional investors.

12. Strategic investment barriers and proposed actions

- Five systemic barriers are identified: risk capital, institutional access, VC scaling, early-stage funding, and public-private leverage.
- Three concrete actions address these barriers: 1) Pension & insurance funds to unlock institutional VC, 2) Tax incentives for business angels to boost early-stage risk capital, 3) Public funding tailored to startups' needs.

II. Mapping Europe: EU Policy & Guidelines on investment

Key themes

- EU Political Guidelines and the new Commission
- EU Missions Letters and associated competences
- The EU Competitiveness Compass under an investment lens
- European public funding and special framework at EU level
- Pan-European initiatives – EIF and InvestEU programmes

State of play of the EU policy landscape: Political Guidelines, EU Mission Letters under Investment

To understand the major activities that support our ambition, a general timeline of main events regarding the Europe Startup and Scaleup Strategy may be found below:

17/04 2024

Letta Report

"Much More than a Market"

18/07 2024

Ursula von der Leyen's Political Guidelines

"Europe's Choice: Political Guidelines for the Next European Commission 2024- 2029"

09/09 2024

Draghi Report

"Report on the Future of European Competitiveness"

05/11 2024

Appointment of Commissioner for Startups and Scaleups

Ekaterina Zaharieva (Bulgaria) was approved by the European Parliament as the EU's first Commissioner for Startups, Research, and Innovation

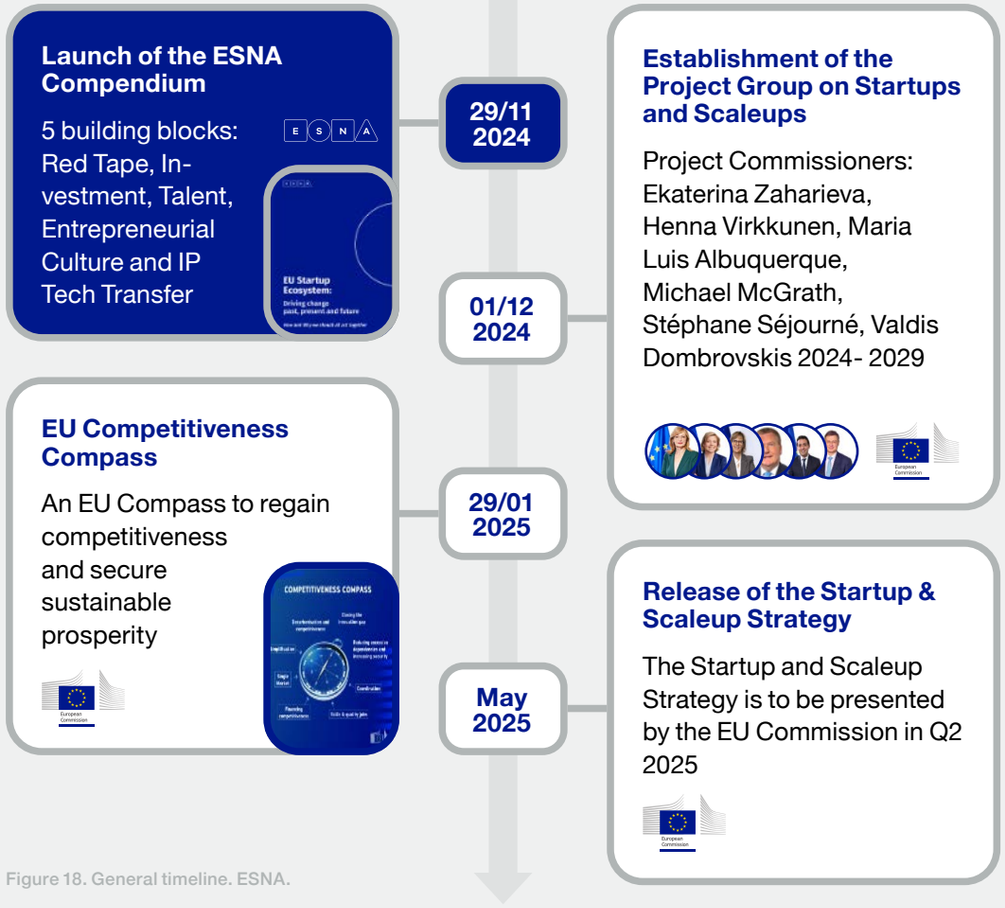


Figure 18. General timeline. ESNA.

1. Political guidelines

President Ursula von der Leyen's overarching guidelines set the tone for the European Commission's strategic goals. Published in July 2024 these guidelines define six broad objectives to prepare the EU for the next five years and beyond.
Six key goals underpin the Commission's approach to fostering prosperity and competitiveness:

Key Political guidelines	ESNA Volumes
A.1. Make business easier and deepen the Single Market **A.2.** Build a Clean Industrial Deal to decarbonise and bring down energy prices	**Red Tape**

Key Political guidelines	ESNA Volumes
A.3. Put research and innovation at the heart of the economy	**IP Tech Tranfer**

Key Political guidelines	ESNA Volumes
A.4. Boost productivity through digital tech diffusion	**Entrepreneurial Culture**

Key Political guidelines	ESNA Volumes
A.5. Invest in sustainable competitiveness	**Investment**

Key Political guidelines	ESNA Volumes
A.6. Tackle the skills and labour gap	**Talent**

All these goals are – directly or indirectly – related to innovative companies. Startups are mentioned three times in the 31-page document, indicating that the EC does not leave them behind during this new mandate. A new EU Startup and Scaleup Strategy is indeed in the pipeline, going beyond the traditional outlook on SMEs. While there is not yet a European-wide definition of startups,[17] the ecosystem's consensus goes for a young, innovation and/or research-intensive company with 250 or so employees.

The EU Startup and Scaleup Strategy will become a common thread connecting the missions mentioned above, ensuring that research, innovation, skills development, access to finance, and industrial strategy all contribute to the same goal: to make the EU a global leader in the startup ecosystem.

[17] The taxonomy of the "startup definition" is an ongoing work where many actors of the startup and scaleup ecosystem are involved, including ESNA, as it has also supported and led some research on this topic.

2. EU Missions Letters*

A.1. Make business easier and deepen our Single Market

Missions	National/ EU level	Legislation type
1. Digital Networks Act		
2. European Data Union Strategy (simplified legal framework)		
3. Horizontal single market strategy		
4. SME passport		
5. Single Digital Gateway	EU level	Legislative Act: Regulation (EU) 2018/1724
6. Facilitate labour mobility		
7. Review regulatory framework to help startup financing	National level	Ongoing reviews (specific legislative outcomes pending)
8. Digital Euro	EU level	Under exploration by the European Central Bank; legislative framework in development
9. SME and competitiveness check "one in, one out"		
10. 28th regime		

A.2. Build a Clean Industrial Deal to decarbonise and bring down energy prices

Missions	National/ EU level	Legislation type
11. European Green Deal - Clean Industrial Deal - Industrial Decarbonisation Accelarator Act / Net Zero Industry Act - Circular economy		

A.3. Put research and innovation at the heart of our economy

Missions	National/ EU level	Legislation type
12. EU Cloud and AI Development Act		
13. Have capital markets that invest in Innovation	National/ EU level	Strategic goal (supported by various legislative measures)
14. Intellectual property policy		
15. European Research Area Act - "fifth freedom"		
16. Strategy European Research Infrastructure		
17. Strengthen Universities Alliances		
18. European Innovation Act		
19. Advanced Materials Act		

A.4. Boost productivity with digital tech diffusion

Missions	National/ EU level	Legislation type
20. Europe´s 2030 Digital Decade		
21. European Digital Rulebook		
22. Impact of digitalisation in the world of work		

A.5. Invest massively in our sustainable competitiveness

Missions	National/ EU level	Legislation type
23. Defence industrial competitiveness	National level	Supported by various policies and programmes
24. New Industrial Strategy	EU level	Strategic initiative (encompasses various legislative measures)
25. European Competitiveness Fund	EU level	Proposed initiative (legislative framework to be defined)
26. Invest EU programme	National/ EU level	Legislative Act: Regulation (EU) 2021/523
27. Critical raw materials act	EU level	Proposed legislation (details pending)
28. New approach to competition policy	National/ EU level	Policy initiative (implemented through various guidelines)
29. SMEs and small midcaps killer acquisitions	National level	Addressed through amendments to competition regulations
30. Increase availability of venture and other risk capital	National/ EU level	Supported by various legislative measures
31. Enhance EIF to finance high-potential and fast growing EU companies	EU level	Policy initiative (implemented through various programmes)

A.6. Tackle the skills and labour gap

Missions	National/ EU level	Legislation type
32. Quality Jobs Roadmap / Union of Skills / Pact for Skills		
33. Talent Pool		
34. STEM Education Strategic Plan		

Note: Mission Letters related to Investment, highlited in grey.

Figure 19. EU Missions and their impact at National and EU level. ESNA analysis.

3. The EU Competitiveness Compass under an investment lens

The Commission presented the Competitiveness Compass in January of this year, a roadmap to support and restore Europe's dynamism and boost economic growth. It follows an analysis of Draghi's report, as it acknowledges three imperatives that were mentioned in this report as essential to reach competitiveness:

1. Closing the innovation gap

2. Increasing security and reducing excessive dependencies

3. A joint strategy for decarbonisation and competitiveness

Closing the innovation gap

The EU must reignite its innovation engine - to do so, startups and scaleups are fundamental. As indicated in the EU Competitiveness Compass; to create a habitat for young innovative startups, promote industrial leadership in high-growth sectors via deep technologies as well as the diffusion of technologies across established

companies and SMEs, we need to take the following topics into consideration:

1. AI Gigafactories
2. Apply AI
3. Advanced materials, quantum, biotech, robotics and space technologies

4. EU Startup and Scaleup Strategy to address the obstacles that are preventing new companies from emerging and scaling up

The 28th legal regime will simplify "applicable rules, including relevant aspects of corporate law, insolvency, labour and tax law, and reduce the costs of failure. This will make it possible for innovative companies to benefit from one single set of rules wherever they invest and operate in the Single Market".[18]

[18] An EU Compass to regain competitiveness and secure sustainable prosperity, European Commission, January 2025

European Savings and Investment Union

The EU needs a more effective capital market to better channel savings into investments. To address this, the Commission will introduce a European Savings and Investments Union, designed to develop innovative savings and investment products, encourage risk capital, and facilitate the smooth movement of investments across Member States. A revamped EU budget will simplify access to EU funding, aligning it with the Union's strategic priorities.[19]

[19] Note: this topic is elaborated in Chapter V.

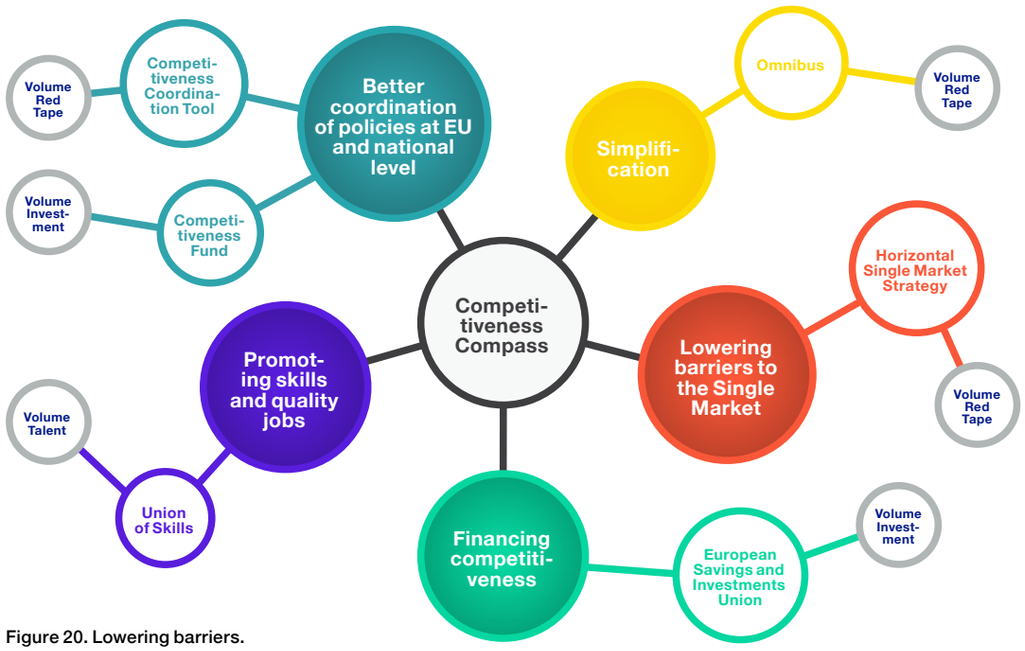


Figure 20. Lowering barriers.

Competitiveness Fund

In the upcoming Multiannual Financial Framework, a Competitiveness Fund will consolidate various existing financial instruments with similar goals, offering targeted financial support for initiatives under the Competitiveness Coordination Tool.

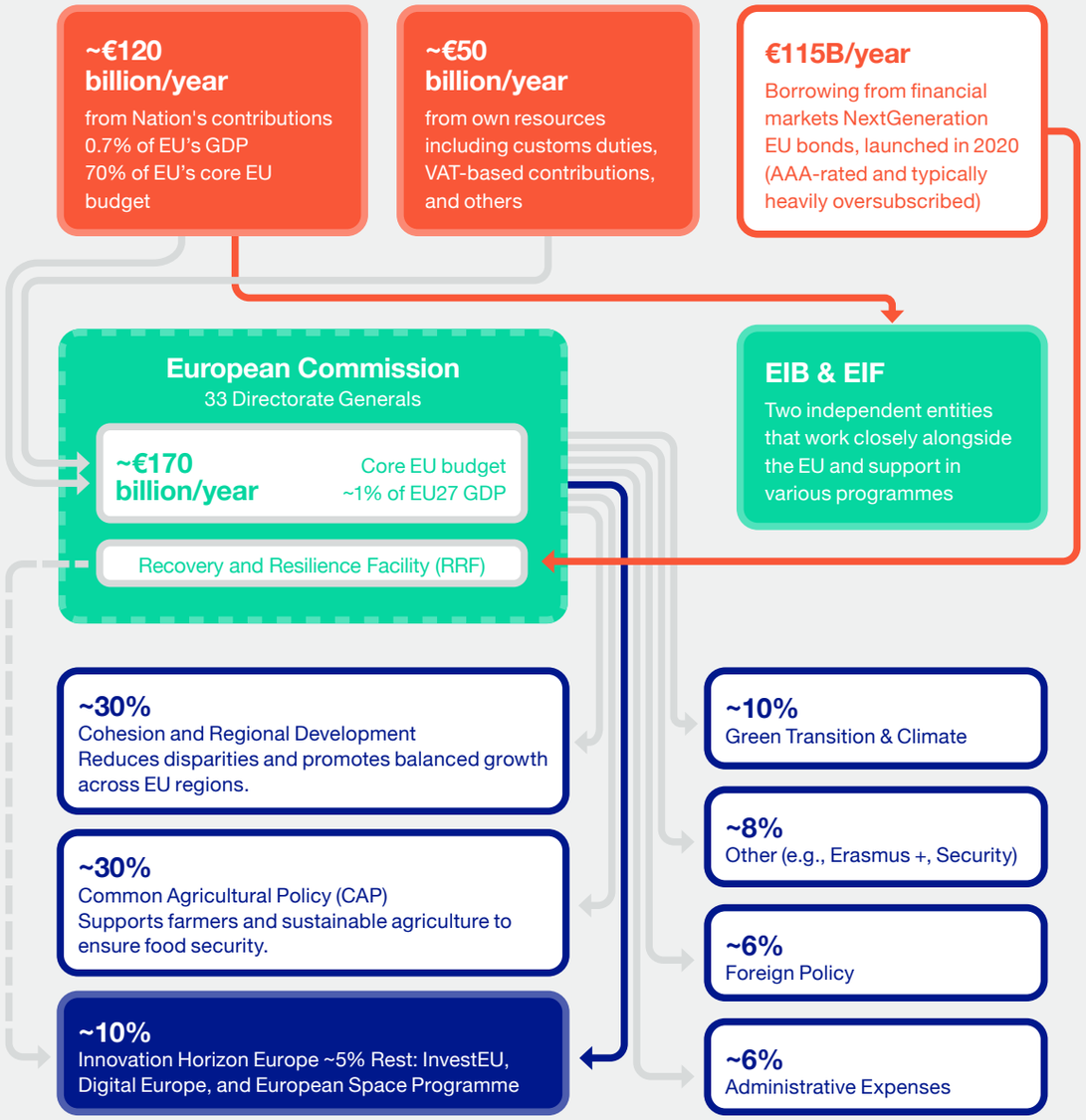


Figure 21. EU budget of GDP

Source: "Accelerating Europe – Part 1 of 3 – The State of European Innovation and Why It Matters", January 2025.

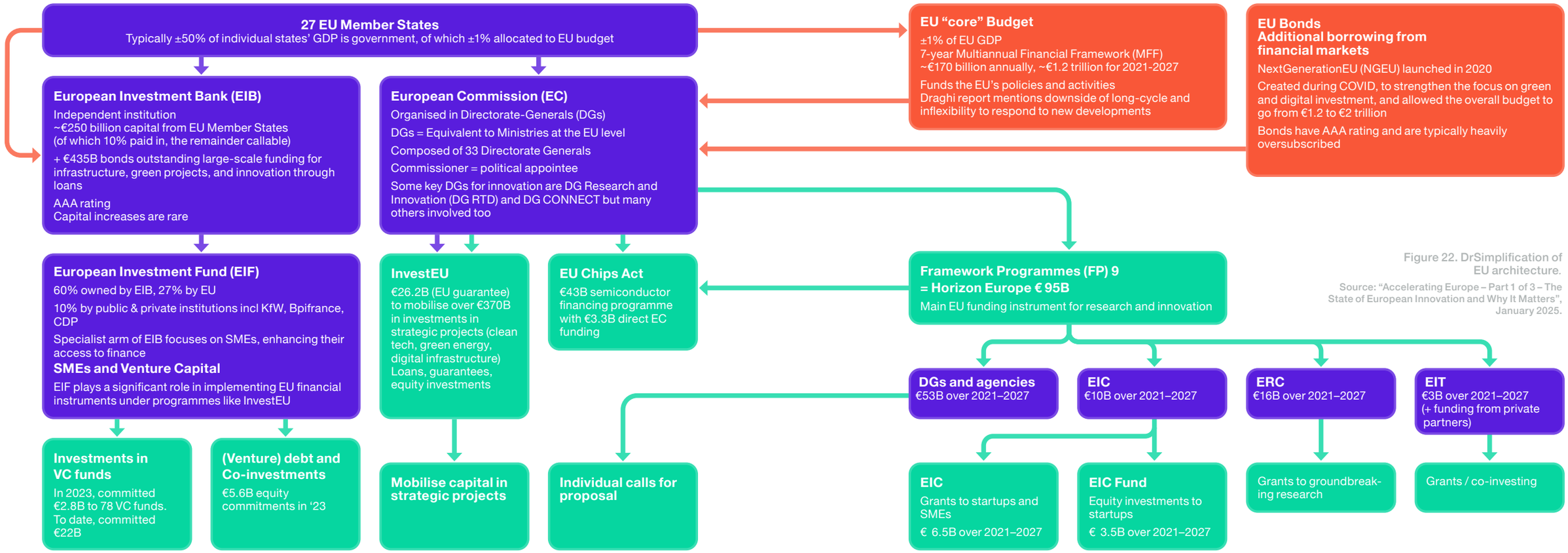


Figure 22. DrSimplification of EU architecture.

Source: "Accelerating Europe – Part 1 of 3 – The State of European Innovation and Why It Matters", January 2025.

European public funding and special framework from EU to national level

General public funding

To understand the dynamic of money flow and it public relevance, it is important to highlight not only the amount of public investment that goes to innovation, but the system that allows it to be delivered at a local level.

When it comes to the general public funding set to support innovation, the EU's budget, managed by the European Commission, is financed through contributions from Member States (€120 billion/year), own resources (€50 billion/year), and borrowing from financial markets (€115 billion/year via NextGeneration EU bonds). The total budget of €170 billion/year is distributed across various sectors: 30% for Cohesion & Regional Development, 30% for the Common Agricultural Policy (CAP), 10% for innovation (Horizon Europe, InvestEU, Digital Europe, and the European Space Programme), 10% for Green Transition & Climate, 8% for programmes such as Erasmus and security, 6% for foreign policy, and 6% for administrative expenses. The European Investment Bank (EIB) and European Investment Fund (EIF) work alongside the EU to support various initiatives. This budget structure aims to ensure balanced regional growth, sustainability, innovation, and economic resilience across the EU.

In terms of coordination

Coordination of capital flow, the system is built up with the EU Member States, with the European Investment Bank (EIB) and the European Commission being the main coordinators of the funds supply. Alongside them, there is the European Investment Fund (EIF). The funding is used for a diverse range of projects and programmes, such as InvestEU, EUChip Act, and the Framework Programme (FP) 9, also known as Horizon Europe, which allocates a total of €95B to Research & Innovation.

The coordination role of the Horizon Europe Programme is divided into four different entities: Directorates General (DGs) and agencies, European Innovation Council (EIC), European Research Council (ERC) and European Institute of Innovation and Technology (EIT), which are responsible for allocating those funds in grant, equity investments and co-investing in innovation projects.

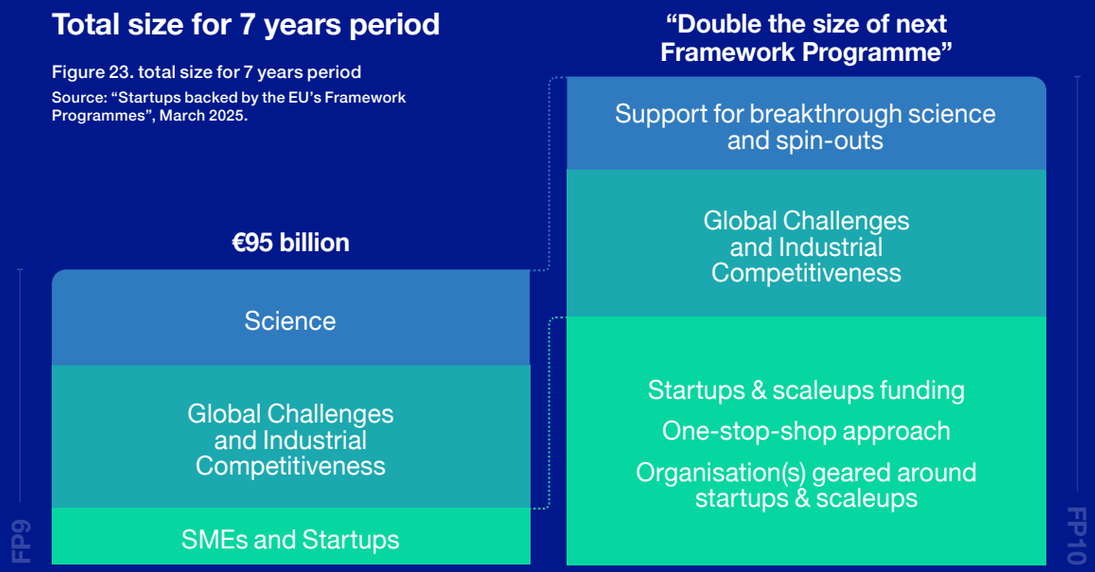


Figure 23. total size for 7 years period
Source: “Startups backed by the EU’s Framework Programmes”, March 2025.

Next steps after Horizon Europe FP10 [20]

Mario Draghi acknowledges in his recent report that clean technologies should be one of the strategic priority areas of FP10. It implies:

• A dedicated new competitiveness joint undertaking for applied and breakthrough industrial research where the EU can become a leader for the next generation technologies. The objective is to attract adequate resources for the deployment of first-of-its-kind tech, particularly for large-scale projects and related infrastructure.

A particular focus on the revamped breakthrough innovation programmes which would notably include:

• Offering various instruments adjusted to different TRLs (Technology Readiness Level, which measures at which development phase a product is). FP10 should extend to the phase of deployment to market. Public R&D spending in the EU is highly fragmented across Member States, not consistently directed towards EU-wide priorities, and often difficult to access.

[20] Disclaimer: Budget not yet confirmed.

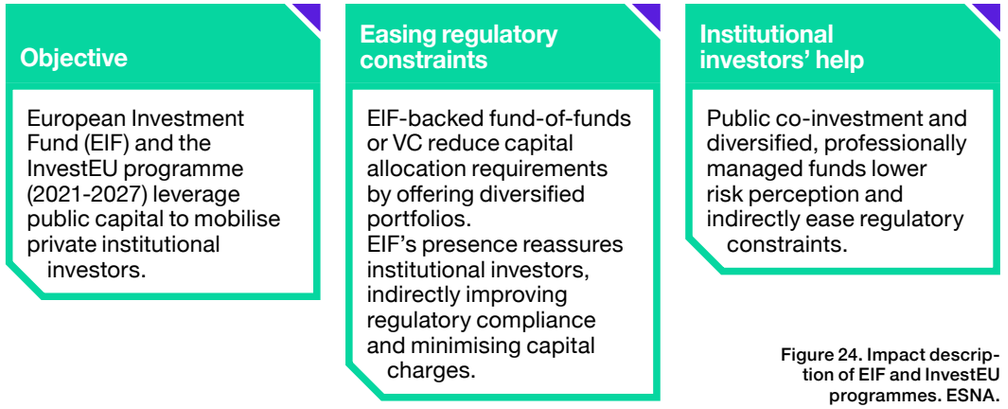


Figure 24. Impact description of EIF and InvestEU programmes. ESNA.

Certain investment structures indirectly ease regulatory constraints by reducing perceived risk and optimising capital requirements for institutional investors. Indirect investments through a fund-of-funds or VC model lower direct risk exposure, allowing investors to benefit from lower regulatory capital charges compared to direct investments. Similarly, public co-investment and government guarantees signal reduced risk to regulators, which in turn lowers capital set-aside requirements, making venture capital investments more viable for institutional players.

Additionally, portfolio diversification helps investors comply with regulations such as Solvency II and IORP II, as a well-diversified portfolio carries a lower risk. Furthermore, government endorsement and regulatory signalling play a crucial role by implicitly influencing regulatory interpretation over time. When public institutions actively support or invest in venture capital, they create a favourable environment that can lead to more flexible regulatory approaches, ultimately encouraging greater institutional participation in the startup ecosystem.

Main takeaways:

1. Political guidelines set the strategic direction

• Ursula von der Leyen’s **2024 political guidelines** define six overarching goals shaping the EU’s next five years, focusing on prosperity, competitiveness, and innovation.

• Startups are mentioned through a **new EU Startup and Scaleup Strategy** is being developed.

• This strategy aims to **connect innovation, industrial strategy, research, and finance** to position the EU as a global startup hub.

2. EU Mission Letters support startup ecosystem

- Multiple EU Commissioners have **direct or indirect mandates** related to startups and scaleups.
- These Mission Letters help align **national and EU-level efforts** to advance innovation and entrepreneurship.

3. The EU Competitiveness Compass (2025)

- Inspired by Mario Draghi's report, the Compass outlines **three core imperatives:**
  - Close the innovation gap.
  - Increase security and reduce dependencies.
  - Align decarbonisation with competitiveness.
- The **EU Startup and Scaleup Strategy** is key to closing the innovation gap, focusing on:

1. AI initiatives (e.g., **AI Gigafactories**)
   - Deep tech sectors (quantum, robotics, space, etc.)
- A new **28th legal regime** to simplify cross-border operations for startups.

4. Five horizontal enablers for competitiveness

- Includes the **European Savings and Investments Union** to improve capital flows and risk capital access.
- Introduction of a **Competitiveness Fund** to unify funding instruments.

5. Public funding and financial architecture

- The **EU budget** (approx. €170B/year) allocates 10% to innovation through:

1. **Horizon Europe, InvestEU, Digital Europe**, etc.
2. Supported by the **EIB** and **EIF**.

- Funding is coordinated through various EU bodies (e.g., DGs, EIC, ERC, EIT).
- Horizon Europe alone provides **€95B** to research and innovation.

6. Next Steps – FP10 (Framework Programme 10)

- **Mario Draghi recommends** FP10 to address the **fragmentation and inaccessibility** of EU R&D funding.

7. Role of EIF and InvestEU in risk reduction

- **Fund-of-funds or VC models**, public co-investments, and guarantees help lower the perceived risk for institutional investors.
- These mechanisms enable **regulatory flexibility** and improve institutional capital participation.
- Align with regulatory frameworks like **Solvency II** and **IORP II** through diversification and signalling.

III. Advisory Board's input: proposals for the new startup and scaleup strategy

Key themes

- Understanding Europe's needs
- Deep dive on each suggested action
- List of evidence
- Benchmarking
- Importance of the action
- Summary of arguments

1. Understanding what Europe needs through pension funds, tax incentives and public funding strategy

Action #1 Pension funds & insurance funds allocation to European venture capital

Europe's pension funds, which manage an astounding $9 trillion, represent an untapped resource. Allocating just 5% of these funds to venture capital could dramatically outpace US VC funding. However, current European policies make it difficult for pension funds to invest in venture capital. Reforming these policies and creating fund-of-funds structures to channel investment into multiple VCs could solve the liquidity issue and provide much needed capital for European startups.

Action #2 Tax incentives to increase angel and venture capital Investment (increase cash-flow)

Support or implement a new policy strategy to encourage more private individuals and/or firms (angel investors and venture capital funds) to invest in startups and scaleups by offering them tax benefits/ incentives.

Potential incentives:

- Income tax deductions or credits: investors can deduct a percentage of their investment from their taxable income, reducing their overall tax liability.
- Capital gains tax exemptions/ reductions: profits made when investors sell their shares in a startup could be partially or fully exempt from capital gains tax, especially if they hold the investment for a certain period of time.

• Loss relief: if the startup fails, investors can offset their losses against other income, reducing the financial risk of investing in startups.

Action #3 Update public funding strategy for innovative companies

a. Increased funding allocation to startups

Ensuring that a greater share of public funding is directed towards startups, rather than larger corporations or traditional enterprises, to fuel innovation and economic growth.

b. Convertible loans as analternative to subsidies

Rather than providing direct subsidies (which are non-repayable), public funding could be structured as convertible loans, a type of debt that can later be converted into equity. This approach encourages sustainability, aligns public interest with business success, and ensures that funds are reused rather than being one-time grants.

c. Co-investment with angel investors and venture capital

Public funding would be leveraged through co-investment models, particularly in collaboration with angel investors. This enhances private sector participation, mitigates risk, and provides early-stage startups with both capital and mentorship from experienced investors.

Europe's industrial heritage influences its startup ecosystem. Approximately 80% of European startups focus on developing physical technologies, leveraging the region's industrial capacity. By contrast, the United States' startup ecosystem is predominantly driven by Software as a Service (SaaS) and digital solutions. Despite this difference, European physical tech-based startups demonstrate higher graduation rates when EU-backed. Most EU-backed startups are in the early stages, offering a significant opportunity to nurture and scale these[21] enterprises further.

It is fundamental to understand the numbers. For example, the public fund Horizon Europe (FP9)[22], boasting a €95 billion in assets under management (AUM), has the resources to drive transformative change.

However, despite promising results, significant challenges remain, especially in attracting venture capital (VC) and fostering a unified ecosystem for startups and scaleups. This volume explores the current conditions in Europe, as well as the potential policies that could mitigate the investment constraints.

[21] IRB report

[22] See FP10 on Chapter "Mapping Europe"

Key issues in Europe's financial fragmentation

To first understand the main scenario that we are targeting, it is important to highlight that Europe´s fragmentation is present also in the banking and finance fields, and that this has historically challenged the pace at which some policies or regulations could be implemented nationally.

National fragmentation in banking & finance

Cross-border banking integration is lower today than before the Global Financial Crisis (GFC).

Private capital remains confined to national markets, limiting efficient allocation.

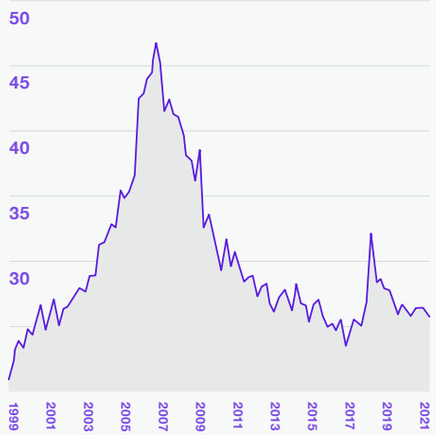


Figure 25. Intra-EA12 cross-border bank claims, 1999-2023.

Source: Stepping Up Venture Capital to Finance Innovation in Europe Nathaniel Arnold, Guillaume Claveres, and Jan Frie.

Pension and insurance constraints

Most occupational pension schemes do not operate across borders due to differences in national social benefits and labour laws.

Pension funds and insurers have a strong home-country bias in asset allocations, reducing diversification.

Source: ESNA Advisory Board

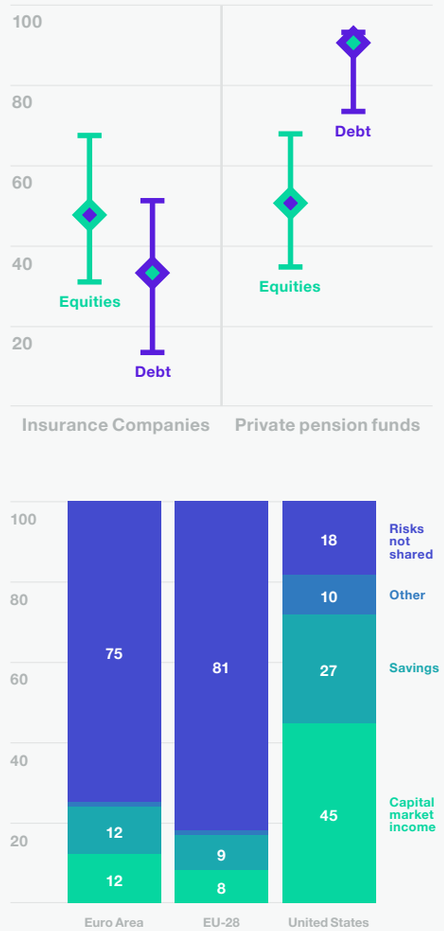


Figure 26. Financial sector fragmentation.

Source: Stepping Up Venture Capital to Finance Innovation in Europe Nathaniel Arnold, Guillaume Claveres, and Jan Frie.

Regulatory, legal, and tax frictions

Complex regulations and tax barriers hinder cross-border investment and trading.

Lengthy and complicated procedures for reclaiming withholding taxes act as a major deterrent to investing across EU countries.

Market consolidation is restricted, preventing deeper capital pools and more liquid markets.

Source: ESNA Advisory Board

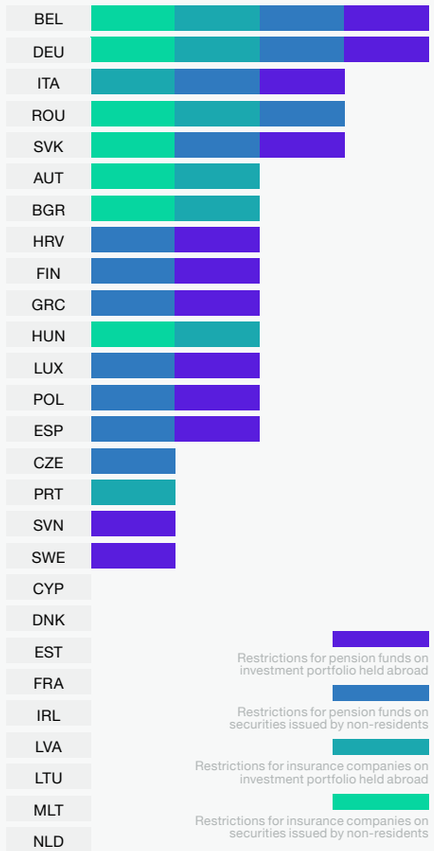


Figure 27. Restrictions on investments in foreign assets, 2021.

Source: Stepping Up Venture Capital to Finance Innovation in Europe Nathaniel Arnold, Guillaume Claveres, and Jan Frie.

Europe has a significant VC investment gap at every stage, and the gap grows the later the stage gets

When it comes to the stages of the startup journey, they each have a major impact on the way capital is raised as highlighted in the image below.

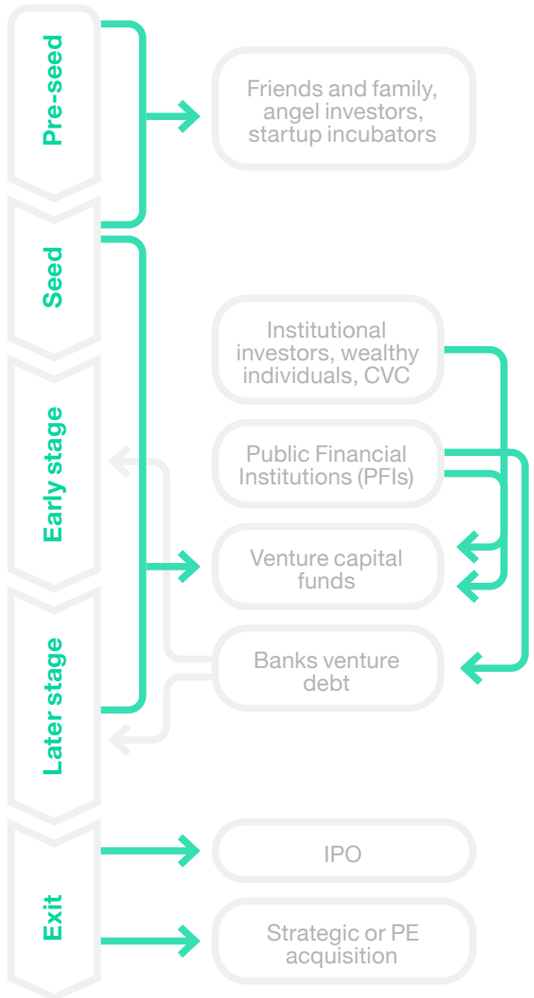


Figure 28. Innovation financing ecosystem

Startup capital

$0-15M rounds

US startups

$18.6B

European startups

$13.8B

ESNA actions

Action 2: Tax incentives (early-stage) - mostly "early stage"

Action 3: Update of public funding schemes (a,b,c)

A. Increase funding allocation to startups. - mostly "early stage"

B. Convertible loans as alternatives to grants - mostly "early stage"

C. Co-investment in angel investors - mostly "early stage"

Scaleup capital

$100M+ rounds

US startups

$120.8B

European startups

$18.1B

ESNA actions

Action 1: Pension and insurance fund investment – all stages, mostly late stages (scaleup)

Action 3:

D. Co-investment with VCs- late stage

Figure 29. VC per stage, linked by ESNA's suggested actions.

Source: "Accelerating Europe – Part 1 of 3 – The State of European Innovation and Why It Matters", January 2025.

2. Deep diving in each suggested action

Action #1 Pension funds & insurance funds allocation to European venture capital

List of evidence

- "For tech to capture 0.5% of Europe's GDP, historic funding levels would need to have been 2.5x higher compared to the US."
- "EU scaleup firms have raised, on average, 50% less capital than their US counterparts in the last ten years."
- "Investments by US pension funds account for more than 50% of private equity and VC."
- "European pension funds committed €6.5 billion (11%) of new funds raised by private equity, and only €0.6 billion of the new funds were raised by VC. These amounts represent 0.4% and 0.02% of the total assets of pension funds."

While some might argue that Europe's lack of a robust stock market is a disadvantage, others maintain that listing European startups on NASDAQ - or other global markets - does not harm the ecosystem. The focus should remain on ensuring that the capital raised flows back to European startups and scaleups, along with a greater money allocation to venture capital and other private investors that can raise the bar.

The pension reforms that stopped pensions from investing in risk assets is even seen as a problem at a stock market level. Indeed, Solvency I and IORPI were implemented in 2002 and 2003. Before that, Member States regulated pension and insurance fund investment, discouraging them from investing as the region may have needed.

It is worth noting that European pension funds used to invest in stocks, however regulations eventually prevented pensions from investing in European businesses: "We used to have pension funds that invested a huge amount of their assets on driving risk capital into our economy, and when we did our growth rates were as high as anyone else in the world, and our capital market were as vibrant as anywhere in the world" shared the CEO of the London Stock Exchange, Julia Hoggert.[23]

One of the actions to be elaborated therefore has to do with encouraging the establishment of an indirect finance mechanism, such as pension funds and other institutional investors, to become stronger participants when it comes to inject money into the ecosystem. This can not only increase the amount of money allocated into startups and scaleups, but also diversify private capital allocation.

When analysing the past 40 years, there is a clear correlation between a positive return for the final employees[24] and the allocation of pension fund money into a more "risky asset" such as venture capital funds, especially when comparing with other alternatives such as country loans.

Despite managing trillions in assets (**European pension funds** collectively manage around **€9 trillion** in assets) European pension funds allocate only a minuscule amount to venture capital. Shifting even a small portion of these assets towards VC could transform the startup ecosystem. As of today, these funds invest only a **tiny fraction (0.01% to 0.02%)** in venture capital.

In Europe, Pension funds have been mentioned as a possible solution to increase the amount of money flowing into innovative companies, especially when approaching larger rounds of investment. In this instance, tickets are higher, and companies that need to continue scaling require a higher ticket to keep on growing.

[23] The Twenty Minute VC (VC 20) Podcast. Interview in March 2025.

[24] Source: Lakestar.com, January 2023.

When comparing the allocation to domestic and non-domestic equities across different countries' pension systems, the US leads with a balanced and relatively high allocation to equities (46% domestic, 18% non-domestic), promoting a healthy investment in both local and global markets. Countries such as Australia and Canada also maintain high equity exposure, contributing to their vibrant investment ecosystems.

Wen analysing the European reality, particularly Germany, France, and Italy, significantly lower equity allocations can be observed. For example:

- **Germany allocates just 14% to equities (13% domestic, 1% non-domestic);**
- **France invests even less, with 7% allocated to equities;**
- **The UK demonstrates a relatively higher allocation (20% domestic, 28% non-domestic), indicating a more equity-friendly approach compared to other European counterparts.**

Lastly, and considering potential implications for innovation, the conservative investment behaviour of European pension funds limits the flow of capital into high-growth sectors such as startups and technology. Initiatives such as Germany's WIN, the Tibi Initiative in France, and the UK's Mansion House proposals aim to encourage pension funds to allocate more to VC, thereby fostering innovation.

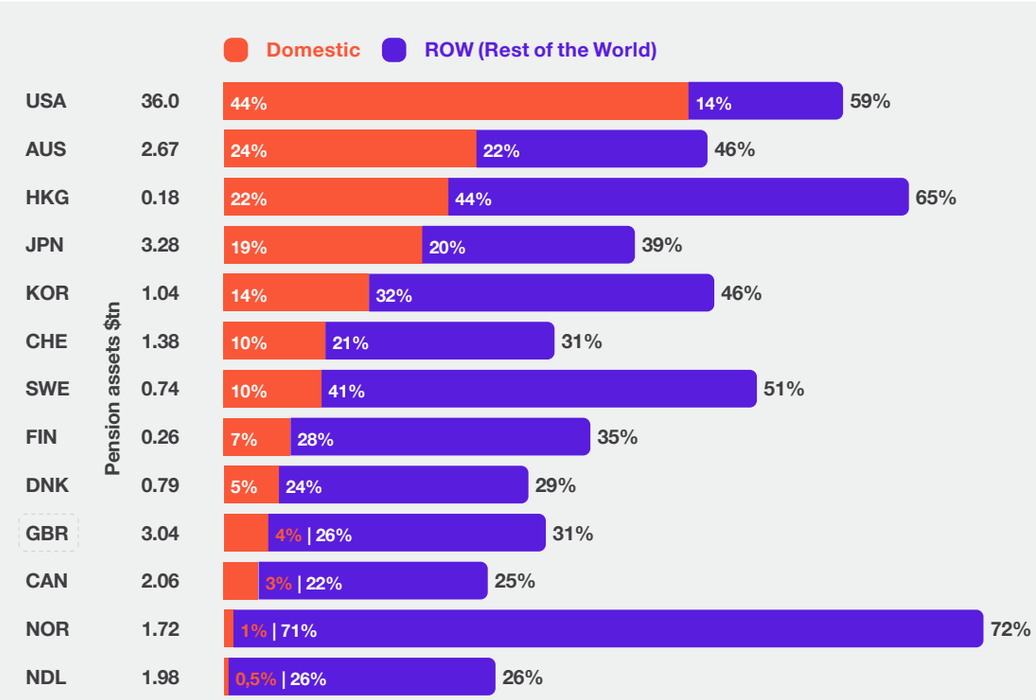


Figure 30. Allocation to domestic and international equities in different pension systems around the world.
Source: "Accelerating Europe – Part 1 of 3 – The State of European Innovation and Why It Matters", January 2025

A recent study conducted by Lakestar[25] displays the differences when investing $100 in pension funds in various countries, which indicates significantly different values across pension plans as seen in the image below:

[25] Lakestar Study

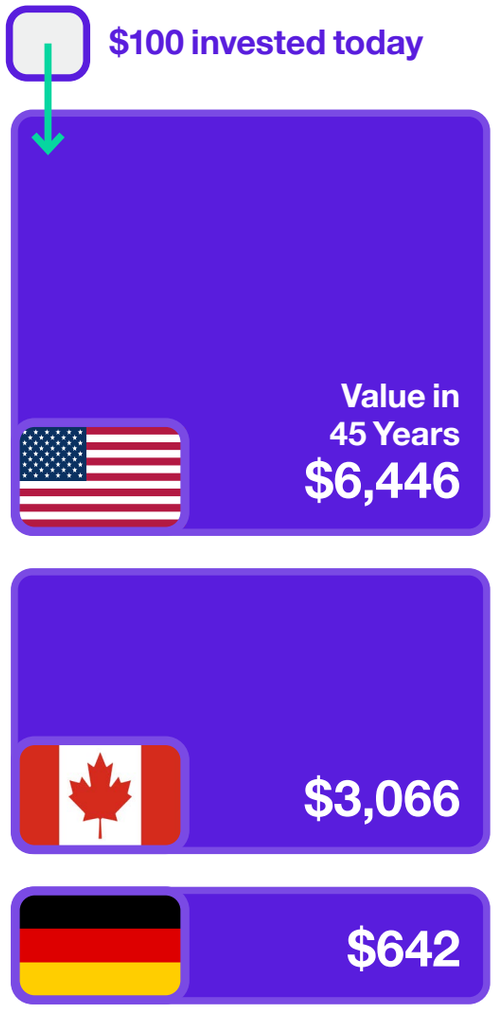


Figure 31. $100 invested in pension fund today amounts to significantly different value across pension plans.

Source: Lakestar.com, January 2023.
Assuming same historical performance observed 2010-2020 for each fund.

In this case, as an example, in 2023, European pension funds committed to allocating €6.5 billion (making up for 11%) of the amount of new funds raised by private equity funds and 0.6% of the new funds raised by venture capital firms. This amount represents 0.4% and 0.02% of the total assets at pension funds' disposal [26].

European pension funds have historically allocated a minimal portion of their assets under management (AUM) to venture capital (VC). In 2022, it was reported that a mere 0.024% of European pension funds' AUM were invested in European VC funds. This figure aligns with the average allocation over the past five years, indicating a consistent trend of low engagement in the VC sector[27].

In contrast, US public pension funds have demonstrated a more substantial commitment to alternative investments, including venture capital. As of 2023, these funds allocated approximately 40% of their total assets to alternative assets, up from 30% five years earlier. Within this category, private equity - which encompasses venture capital - grew from 9% to nearly 15% of total assets during the same period[28].

This could help address the liquidity challenges that currently hamper growth. First, even in Europe, countries with the highest level of venture capital investment by pension funds still display a significant gap when compared to the United States. In the US, investments by national pension

[26] Note: Data gathered by ESNA (2024)

[27] Note: European pension funds 'punching below weight' on VC investments - European Pensions

[28] The great diversification: Why pension funds are moving beyond stocks and bonds - I by IMD

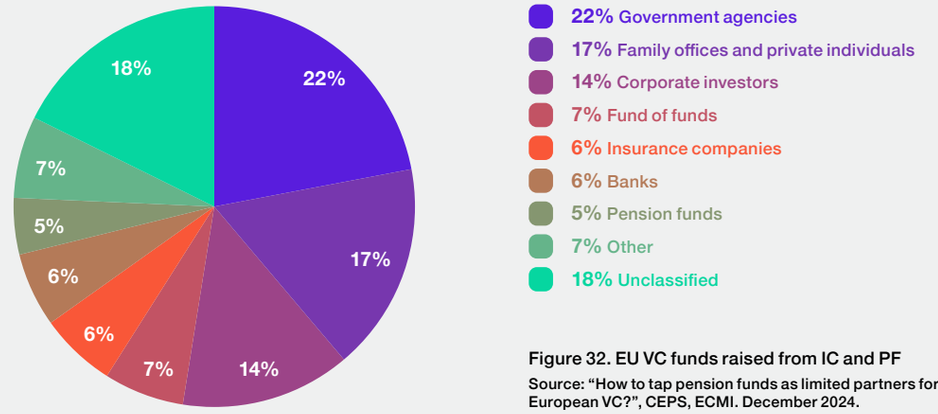


Figure 32. EU VC funds raised from IC and PF

Source: "How to tap pension funds as limited partners for European VC?", CEPS, ECMI. December 2024.

funds represent more than 50% of the private equity and VC investment nationwide. Furthermore, a study highlighted that 88% of US public pension funds invest a portion of their portfolios in private equity, with these investments making up about 14% of their portfolios on a dollar-weighted basis[29].

The graph on the right highlights the distribution of VC funds raised by private funds (PFs) across the Member States. Three main groups of countries can be identified as follows:

1. **Leading countries: The Netherlands leads with 24% of the total VC funds raised, followed by Sweden at 19%, France at 16%, Germany at 12%, and Denmark at 9%. These five countries dominate the VC landscape in the EU, with 80% of total EU VC funds raised by private funds, showcasing strong investment ecosystems that attract substantial venture capital.**

[29] "Private Equity delivers the strongest return for retirees across America". Public Pension Study. American Investment Council. 2024.

Figure 33. Total EU VC funds raised by PFs
Source: "How to tap pension funds as limited partners for European VC?", CEPS, ECMI. December 2024.

2. **Mid-tier performers: countries like Finland with 8% and Spain with 4% also contribute, albeit significantly less than the top five. Ireland, Italy, and the Baltics States each account for 2% of the total VC funds, indicating moderate activity in venture capital fundraising.**
3. **Low and zero contributors: several countries, including Austria, Portugal, and other Central and Eastern European (CEE) countries, show minimal contributions, each at 1%. Interestingly, numerous countries such as Belgium, Bulgaria, Czechia, Greece, Hungary, Luxembourg, Poland, and Romania are marked with 0%, indicating either negligible or no VC funds raised by pension funds.**

a. Europe's limited investment in pension funds – main challenges

As the discrepancies speak for themselves, the question remains: why? Considering the wide gap between the United States and Europe, how come European countries do not invest as much as their counterparts? In order to acknowledge this factor, it is worth highlighting that over 10 European countries do have pension funds investing in venture capital.

One of the debates that one usually encounters falls into whether this action should become mandatory for pension funds managers or not; that is, providing them with a legal structure making such an investment feasible versus forcing them to do so. Therefore, regulations such as the EU Pension Fund Regulation (IORP II) should be keeping with the task at hand, which is to bring more liquidity to the market, despite the risk that comes with investing in innovative companies.

In this sense, its implementation may vary; from building up a type of guaranteed mechanism for pension funds to invest in some alternative assets that may be considered as highly risky in some nations today, to not giving an advantage to pension funds over other individual investors.

Following the rhetoric of considering Member States and policies on a national basis; it is essential to bear in mind that pension systems across Europe are different and are governed at a national level. They are therefore set up to provide a legal framework accordingly, so that it is correctly translated and can reach some consensus at a national level.

While a series of general guidelines for the EU regulation to allow pension funds to invest in alternative assets does exist (by the OECD[30]), it is up to the willingness and power of each local government to decide which measure to impose for pension funds' investments and for their managers to follow.

Constraints regarding regulation

EU-level guidelines could be an option to incentivise future money allocation of pension or insurance funds into startups or scaleups directly (even though this may not be the ideal option depending on the cases[31]). However, providing liquidity to venture capital firms, LPs or other relevant actors of the ecosystem could be a serious advantage, as they can provide support when it comes to scouting and setting up directives for those investments to take place.

European pension funds have historically been facing overly cautious regulations (IORP II, Solvency II, and national laws) and have underinvested in VC, thereby missing significant diversification and growth benefits enjoyed by their US counterparts.

To remain competitive, pension funds in Europe should:

- **Advocate for reduced regulatory barriers and reassessment of the risk categorisation of VC under Solvency II.**
- **Gradually increase VC allocations, using prudent, diversified fund-of-funds or VC strategies, mirroring successful practices in the US.**
- **Engage with EU policymakers to recognise the strategic economic and financial value of higher VC allocations.**

This shift can significantly enhance portfolio performance, provide risk diversification, and support European economic competitiveness and innovation.

Benchmarking proposed solution

To understand the regulatory frameworks better and possible constraints faced by pension and/or insurance funds investing in venture capital, comparability between different regulations in Europe versus the United States may be relevant. The following table features specific insights covering both regions.

[30] OECD, Recommendation of the Council on Guidelines on Pension Fund Asset Management, OECD/LEGAL/0341

[31] Note: Funds of funds may be preferable.

Regulatory Aspect	EU Pension Funds (IORP II Directive)	EU Insurance Funds (Solvency II Directive)	US Pension Funds (ERISA)	US Insurance Funds
Caps on allocations to VC (unlisted equity)	No explicit EU-wide cap, but IORP II's prudent person rule requires "assets not admitted to trading" be kept at prudent levels. Many EU States impose quantitative limits on pension VC investments (e.g. Germany limits unlisted equity to 15%; France allows up to ~30% in unlisted assets). These caps constrain how much pension plans can allocate to venture capital.	No hard investment caps in Solvency II (insurers follow a prudent person principle). However, under Solvency I (pre-2016) many countries had strict limits (e.g. insurers in some EU states were capped ~5-10% in private equity/alternatives). Solvency II eliminated fixed quotas, however all insurers now face the same risk-based regime (no country-specific % cap on VC).	No regulatory percentage limits on VC or private equity. ERISA enforces a "prudent man" fiduciary standard and diversification duty, but does not set fixed caps by asset class. Thus, US pension funds are free to allocate a substantial portion to VC/PE if deemed prudent (indeed, many large plans invest 5 – 15% + in private equity/VC).	No uniform cap on VC investments. State insurance laws largely use a prudent investor approach (or defined "basket" limits that are typically broad). US insurers have no explicit % limit on private equity; they are constrained only by general diversification rules and risk-based capital (RBC) requirements. (The NAIC RBC charge for common equity – public or private – is ~30%, lower than Solvency II's 49% charge, making VC somewhat more feasible for US insurers.)
Classification of VC (risk weighting)	IORP II does not impose capital charges on assets (pensions have no solvency capital like insurers). however some national rules label VC as a higher-risk investment, effectively limiting its appeal. For example, IORP II encourages most assets to be in regulated markets, implicitly classifying unlisted VC as riskier. Pensions must consider the higher volatility and illiquidity of VC in their risk assessments.	Treated as high-risk equity under Solvency II's standard formula. Unlisted equities (which include VC funds) are categorised as "Type 2" equity with a base capital charge of 49%. By contrast, listed equities carry ~39%. This heavy risk weighting raises the capital cost of VC investments for insurers, discouraging allocation. Recent Solvency II tweaks allow lower charges for certain long-term or qualifying funds, however VC generally remains capital-intensive.	No special risk classification for VC – investments are evaluated under overall portfolio prudence. ERISA fiduciaries just must understand the risks; VC is considered part of the equity/alternative allocation. There is no regulatory capital charge for pension assets. Thus, VC is not penalised by regulations, apart from the need for fiduciaries to be comfortable with its risk/ illiquidity profile.	No specific "VC asset" classification in statutes – insurers categorise these as equity or other invested assets. U.S. risk-based capital rules do not penalise "unlisted" equities more than listed (both about 30% factor). Thus, regulators don't explicitly label VC as higher risk beyond normal equity risk. However, insurers still account for VC's illiquidity internally and for credit rating considerations. Overall, regulatory treatment is more neutral, making VC relatively more attractive than under Solvency II.
Other structural limitations	IORP II and national laws impose diversification and quality rules that can indirectly limit VC. For example, a pension fund may invest at most 5% in a single venture fund or company, or 10% if part of a group. Many EU pensions also prefer liquid assets due to liability constraints. Some States require that pension investments in alternatives be via regulated funds (UCITS/AIFs) rather than direct, adding complexity. Overall, strict governance and liquidity requirements under IORP II make large VC exposures less common.	Solvency II's "look-through" rule requires insurers to transparently see underlying fund holdings. This means an insurer investing in a VC fund must obtain data on the startups in the portfolio – a burdensome requirement that can deter VC fund investments unless managers provide detailed reporting. Also, insurers must match assets to liabilities, so the long lock-up of VC can be a structural hurdle. Before Solvency II, some countries had legal lists (e.g. Germany's Anlageverordnung) limiting illiquid assets, however now the main constraints are risk-management: insurers can only invest in VC if they can properly monitor and manage those risks.	US pensions operate under a broad "prudent diversification" framework – no prescriptive rules on types of assets. There are few structural barriers to VC: for example, ERISA's plan asset rule can impose fiduciary status on fund managers if pension ownership of a fund exceeds 25%, however this is typically managed by fund structuring and doesn't cap investment. Overall, US pension trustees can freely decide their VC allocation strategy, provided they document due diligence and ensure the overall portfolio remains prudent.	US insurance regulators historically set some categorical limits (e.g. limits on below-investment-grade bonds or real estate), however today most States allow a portion of "basket" investments (often 5–10% of the portfolio) for any asset not otherwise allowed – VC can fall in this basket. Insurers must also maintain liquidity for claims, which naturally moderates extreme VC exposure. That said, the regulatory environment (prudent person norms and moderate RBC charges) gives US insurers more flexibility to invest in venture capital compared to their EU counterparts.

Table 2. European level vs. US regulations on VC investments. ESNA analysis.
Sources: Annual Survey of Investment Regulation of Pension Funds and Other Pension Providers – 2024 edition; Survey of Investment Regulation of Pension Providers – 2022 edition; Annual

Existing relevant policies throughout Europe

Some Member States such as the Netherlands and some Scandinavian and Baltic countries have already progressed on the topic of pension and insurance funds' investment in VC, usually following a set of guidelines that are prudent. Executive boards of pension funds and insurance representatives can understand, and therefore perceive, this kind of investment in alternative assets as less risky than how they are typically perceived today. More precisely, Scandinavian countries and the Netherlands appear to be reasonably well-positioned in terms of pension funds' investments into VC and PE funds: at the EU level, about 0.4% of pension funds' assets were invested in PE funds in 2023, and only 0.02% in VC funds, which is particularly low[32].

To find out more on best practices, we recommend reading Chapter IV.

Mapping policy at a national level for the 3 actions".

Examples of countries that have a legal framework supporting these new paths to unlock new investment are well-known. From the United Kingdom to the United States, flexibility to invest using pensions, or in other cases, insurance funding, is a well-established practice.

[32] Service Line 2024.

Pension Fund VC Investment Restrictions	Insurance Fund VC Investment Restrictions
Jurisdiction: France	
Pensions (new FRPS – Fonds de Retraite) must ensure that at most 30% of assets can be in instruments not traded on regulated markets. In practice, this means French pension funds can put up to ~30% in illiquid assets such as VC/PE. Apart from this 30% cap, they follow general prudent diversification. (France thus imposes a relatively generous but clear limit on VC as a share of the portfolio.)	French insurers are under Solvency II (no extra national % limits on asset classes). Prior to Solvency II, insurers had an "investment category" approach with limits (for instance, a cap on total equities/alternatives), however those were replaced by the EU-wide Solvency II framework. Today French insurance companies' ability to invest in VC is mainly limited by the standard formula capital charge, not by a separate French cap.
Jurisdiction: Germany	
Occupational pensions regulated as Pensionskassen are subject to strict allocation limits: total equity is capped at 35% of the portfolio, with only 15% allowed in unlisted equity (which includes VC). There is also a small 7.5% cap on alternative investment funds (hedge funds, etc) in some cases. Newer Pensionsfonds are freer (no hard percentage caps), however in practice many German pension plans remain cautious. These limits significantly constrain German pensions' VC allocations (often just a few percent at most).	German insurers likewise face Solvency II rules now. Under the prior regime, Germany's insurance investment ordinance limited "speculative" assets (including PE/VC) to around 5% of the portfolio, and overall equity to 35% – mirroring Pensionskassen rules. Solvency II removed these fixed limits, however German insurers still invest conservatively. In sum, while legally an insurer could invest more in VC today, the combination of Solvency II capital charges and traditionally conservative governance means German insurance allocations to VC remain very low.
Jurisdiction: Netherlands (and similar prudent regimes e.g. Denmark, Ireland)	
No explicit national cap on venture or private equity – pensions follow the prudent person principle with no fixed ceilings. Dutch funds can invest freely in VC as part of their strategy (allocations are determined by fund policy; some large Dutch pensions allocate ~5 – 10% to private equity). Overall, "no specific ceiling" allows maximum flexibility for VC investments.	Solvency II applies uniformly - no country-specific limits. Dutch insurers (like all EU insurers) abide by Solvency II's risk-based rules (high capital charge on VC) but have no additional Dutch law capping VC. Historically, the Netherlands moved early to prudent-person for insurers as well, so there are no extra quantitative limits beyond Solvency II.
Jurisdiction: Poland	
Polish pension funds (OFE) historically have no allowance for VC – by law they could only invest in listed securities and government bonds. Private equity and venture capital were effectively prohibited for mandatory pensions (even after recent reforms, Polish occupational funds are extremely limited in alternative investments). The lack of exposure to unlisted assets means Polish pension funds have virtually no VC investments.	Polish insurance companies are also extremely restricted in practice. Solvency II governs them now, however local regulations and market practice keep allocations in safe assets. Traditionally, Polish insurers had a "legal list" permitting mainly government bonds and public equities – venture investments were not on the list. Today, while Solvency II technically allows some flexibility, Polish insurers have negligible VC holdings, reflecting both past legal barriers and current risk aversion.
Jurisdiction: Spain	
Spanish pension funds have a relatively low ceiling on private asset exposure. Regulations cap unlisted securities (including private equity/VC) to about 20% of the fund's assets (2024 Survey of Investment Regulation of Pension Providers). Within that, strict per-issuer limits apply (max 2% in any single unlisted company). These rules sharply limit VC investment – Spanish pensions tend to invest only a small portion (often <5%) in venture capital.	Spain's insurers fall under Solvency II with no unique national limits, but historically had conservative asset rules. Before EU harmonisation, Spanish insurance law capped equity-type investments (including VC) and required heavy allocation to fixed income. Now no explicit percentage cap exists aside from Solvency II, however in practice Spanish insurers allocate minimally to VC. The risk-based regime and conservative culture result in near-zero VC exposure in insurance portfolios.
Jurisdiction: US	
No statutory caps on pension investing in VC. US private pension plans operate under ERISA's prudent fiduciary rules, which do not set any fixed percentage limits. As long as the plan's overall portfolio is prudent and diversified, substantial allocations to venture capital are permitted. Public pensions in the US likewise face few limits; some states had nominal caps which have been raised over time. Consequently, US pensions have much greater freedom and many allocate significant shares to PE/VC (the largest public plans average ~13% in private equity).	More flexible framework. US insurers are regulated by State laws that emphasise solvency via risk-based capital rather than preset investment bans. There is no across-the-board limit on how much an insurer can put in venture capital, aside from practical RBC considerations. The NAIC's risk-based capital factor for equities is about 30% for both public and private stock – considerably lower burden than Solvency II's charge. While insurers must manage liquidity and diversification, they have discretion to make meaningful VC investments. Overall, compared to Europe, US insurance companies have greater latitude to invest in VC, though allocations are still modest in practice (insurers tend to invest a few percent in PE via limited partnerships).

Table 3. Pension and insurance funds VC investments restrictions. ESNA analysis.

Sources: EU Directives (IORP II, Solvency II and OECD reports on pension investment regulations; national regulations (France (2024 Survey of Investment Regulation of Pension Providers), Germany, Spain (2024 Survey of Investment Regulation of Pension Providers), etc.); US Department of Labor and NAIC guidelines.

Note: These frameworks determine how much pension and insurance funds can commit to venture capital, with European rules generally imposing more constraints than the US system.

Why European pension funds should increase investment in venture capital

Superior long-term performance

Historical outperformance

Over the last two decades, VC has consistently generated higher long-term returns compared to traditional asset classes. For example, Cambridge Associates reports that VC generated annualised returns of approximately 18% over a 25-year period (as of 2023), significantly outperforming public equities (around 7–10%) and fixed-income assets.

Diversification and reduced correlation

Diversification benefits

VC investments generally exhibit a low correlation with public markets. Unlike listed equities and bonds, VC investments are less directly affected by short-term market volatility, providing pension funds with valuable diversification and reducing overall portfolio volatility.

Cycle decoupling

Because VC valuations are determined by long-term business potential rather than short-term market sentiment, they provide a hedge against downturns in public equity markets. In periods when stock markets decline sharply, well-diversified VC portfolios often remain resilient, protecting institutional investors from steep cyclical downturns.

Strategic portfolio diversification (endowment model)

Endowment model validation

Prominent endowment funds (e.g., Harvard, MIT, Yale) allocate substantial portions (typically 20 – 40%) to alternatives, especially VC and private equity. These sophisticated institutional investors recognise VC's role as a strategic hedge and a high-return-generating asset class.

Resilience and stability

Endowments utilising VC investments historically have shown more stable returns during periods of economic downturn, precisely because VC investment returns are largely uncorrelated with market-driven asset price fluctuations, protecting capital through downturns.

Risk mitigation through diversification

Perception vs Reality of risk

While VC is categorised as a "high-risk" asset under regulatory frameworks like Solvency II, data from sophisticated allocators consistently demonstrates that including a prudent VC allocation can reduce portfolio volatility through diversification benefits.

Managed risk through professional management

Investing via reputable VC funds (especially diversified funds-of-funds or multi-stage funds) mitigates individual company risk. Pension funds benefit from professional selection, monitoring, and risk management strategies employed by experienced VC managers.

Enhancing returns in a low-interest rate environment

Combatting low-yield environment

With persistently low yields on bonds and public-market equities facing valuation pressures, pension funds must seek higher-yielding alternatives. VC provides potential for substantial capital appreciation and higher returns, offsetting low yields and ensuring pension sustainability.

Addressing funding shortfalls

European pension funds face structural funding shortfalls exacerbated by aging demographics. Higher-return assets like VC become essential to close this funding gap, ensuring sustainable and sufficient future pension payments.

US pension fund case study

No restrictive caps (ERISA advantage)

Unlike European counterparts constrained by explicit allocation limits and high-risk classifications, US pension funds under ERISA regulation are not subject to specific asset-class caps. This flexibility has allowed US pension funds (such as CalPERS, CalSTRS, and New York State Common Retirement Fund) to consistently invest 5 – 15% or more into VC, significantly boosting long-term portfolio performance.

US results

US public pension funds that allocate meaningfully to VC consistently report stronger returns, validating the strategy of allocating to VC as part of a balanced portfolio, despite its perceived riskiness.

Alignment with strategic and ESG goals

Innovation and ESG alignment

VC investments often focus on innovative, future-oriented sectors (e.g., technology, healthcare, sustainability). European pension funds investing in VC can align portfolios with ESG criteria and support economic transformation, achieving both financial and non-financial strategic objectives.

EU and National initiatives

Recent European initiatives (e.g., France's Tibi Initiative, Italy's tax incentives, and other national reforms) actively encourage pension and insurance funds to allocate more capital into VC to promote innovation and economic resilience. Pension funds adopting early can gain early-mover advantages and potential preferential access to high-quality funds.

Arguments for pension funds to invest in VC

Higher long-term returns

Historically outperforms public equity and bonds, crucial for pension funds needing growth.

Diversification

VC provides exposure to economic sectors not correlated to public market fluctuations, thereby reducing overall portfolio volatility and risk.

Economic hedge

Supports the European ecosystem of innovative startups, aligning investments with ESG and societal impact objectives.

Flexible risk management

Risks managed effectively via professional VC fund management and due diligence processes.

Funding sustainability

Higher returns from VC investments help close funding gaps due to demographic pressures.

Alignment with ESG goals

Supports innovation and sectors aligned with sustainability and future economic growth.

Proven US pension success

US pensions track record validates strategic VC allocation as beneficial and prudent.

Action #2 Tax incentives for angel investment – connecting business angels, corporates and VCs with the ecosystem

List of evidence

- Being able to raise equity finance makes firms 13 percent more likely to innovate.
- Europe's shortfall on VC is around €400 billion – 5x less than US.
- Europe generates the same number of unicorns per money invested (same rate per output as the US).
- Europe must address a €375 billion growth capital funding gap: European startups are half as likely to raise growth rounds as their US counterparts. Europe has 35,000 early-stage startups, more than any other continent globally, but displays funding gaps at every single stage.

Tax incentives play a crucial role in fostering the startup and scaleup ecosystem in Europe, providing fiscal advantages that encourage investment in high-growth, innovation-driven enterprises. By offering tax reductions, credits, or deferrals, European governments aim to attract venture capital, promote research & development (R&D), and support early-stage companies in scaling their operations. Examples feature countries such as Ireland, with a historic support for novel tech companies thanks to the relocation of tech companies and their global or international acceleration programmes, or Estonia, which boasts a series of innovative startups and unicorns - proving that no matter the size of the nation and its population, they can become a global relevant player in this field.

Many European countries have leveraged corporate tax incentives to build thriving startup hubs, while France's R&D tax credit and the UK's Enterprise Investment Scheme (EIS) have stimulated investment in innovative sectors. However, while these incentives have proven to be effective in certain cases, their success depends on strategic design, ensuring they target high-impact industries such as deep tech, green innovation, and export-driven startups. The effectiveness of tax incentives is also influenced by regulatory harmonisation, cross-border investment accessibility, and political will, all of which shape Europe's ability to compete globally in fostering a robust entrepreneurial ecosystem.

These measures would be particularly relevant when it comes to positioning Europe in the global ecosystem. As can be seen in the image below, R&D spending is much more significant in the US and quite spread out between companies in tech, outside tech, and public R&D. On the contrary, European companies outside tech are by far the biggest R&D spenders, followed by public funding – tech companies making up just above 10%.

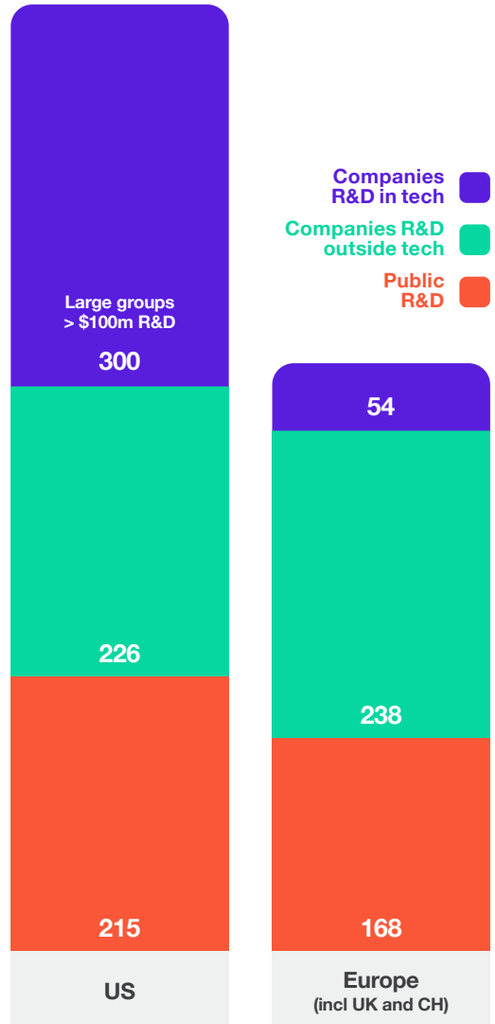


Figure 34. Enterprise R&D and public support, US vs. Europe. Billion euros.

Source: "Europe Tech and war", Coste, Oliver, November 2022. OECD and European Commission.

Benchmarking the proposed solution

One of the best-known examples in Europe when it comes to tax incentives support for venture capital and other forms of risk investment were created after the 1990s[33], demonstrating an urge to increase money allocation paired with specific benefits for the innovation ecosystem. Both of these cases are from the United Kingdom.

As of today, London continues to act as a hub of cash-flow and investment when it comes to venture capital, in addition to a high number of unicorns and IPOs in the region. Therefore, highlighting both the Seed Enterprise Investment Scheme and the Enterprise Investment Scheme is relevant.

SEIS and EIS successfully drive risk capital into early-stage startups, reducing investor risk while enabling high-growth business. SEIS is critical for launching startups, while EIS supports scaling. Despite challenges, these schemes have been instrumental in developing the UK's startup ecosystem, fostering innovation, job creation and economic growth.

Impact of SEIS & EIS on early-stage Startup funding

Overview of SEIS & EIS

|SEIS (Seed Enterprise Investment Scheme): For startups <3 years old, <25 employees, and <£350k in assets. Allows up to £250k in funding, with 50% income tax relief for investors.
EIS (Enterprise Investment Scheme): For companies <7 years old, <250 employees, and <£15m in assets. Allows up to £5m per year (£12m total), with 30% income tax relief.
Both schemes require investors to hold shares for at least 3 years and target high-growth startups.

Driving risk capital into startups

SEIS/EIS bridge the funding gap by incentivising angel investors to back high-risk startups.
£30B+ invested in 53,000 startups since inception.
2/3 of investors would not invest in early-stage startups without these tax reliefs; nearly 50% would not invest at all without SEIS/EIS.
SEIS-backed firms grow revenue 23% faster and create 12% more jobs than non-SEIS firms.

Impact on startup fundraising

4,205 companies raised £1.96B via EIS (2022-23); 1,815 raised £157m via SEIS.
Nearly 75% of EIS-backed firms credit the scheme for enabling their growth; 50% of EIS firms say they wouldn't exist without it.
Many unicorns (Just Eat, Monzo, Revolut) used SEIS/EIS in early funding rounds.

Challenges & limitations

Startup eligibility constraints: only certain industries qualify; strict rules on company age, size, and funding history.
Funding limits: SEIS (£250k cap) often too low for scaling; EIS (£12m total) insufficient for hyper-growth startups.
Compliance burdens: founders must navigate complex rules, maintain eligibility, and manage documentation for investors.
Investor downsides:
Illiquidity: 3-year lock-in.
Tax complexity: investors must claim relief manually.
No control: investors cannot own >30% or hold paid roles in the startup.

Table 4. Impact of SEIS & EIS on early-stage startup funding. ESNA analysis.

[33] "What is the Enterprise Investment Scheme (EIS)?", British Business Bank, April 2025.

Why tax incentives will benefit investors

Investor benefits & risk mitigation

Income Tax Relief

50% (SEIS) and 30% (EIS) upfront tax rebate.

Capital Gains Tax (CGT) Exemption

No tax on startup exit profits.

Loss relief

Offsets losses against income tax—worst-case SEIS investor loses only ~27.5% of capital vs. full loss without the scheme.

Capital gains reinvestment relief (SEIS only)

50% CGT exemption for reinvesting gains.

Inheritance Tax Exemption

100% relief if held for 2+ years.

Arguments for tax incentives connecting business angels, corporates and VCs with the ecosystem

Driving inovation and growth

Studies show that firms with access to equity finance are 13% more likely to innovate. Tax incentives that facilitate access to VC and angel investment drive higher R&D output, leading to economic expansion and increased startup success rates.

Addressing Europe's growth capital gap

Europe faces a €375 billion funding shortfall, with startups being half as likely to raise growth rounds as their US counterparts. Targeted tax relief schemes (like SEIS/EIS in the UK) incentivise risk capital, filling this gap and fostering a globally competitive startup ecosystem.

Attracting earty-stage and scaleup funding

58% of countries implement tax incentives for business angels. SEIS/EIS have deployed €30 billion into 53,000 startups. These schemes enable pre-seed and scale-up financing, ensuring that startups progress through funding stages without capital bottlenecks.

De-risking private investment

SEIS offers 50% income tax relief and EIS 30% tax relief, significantly lowering investor risk.
Additional mechanisms such as Capital Gains Tax (CGT) exemptions, loss relief, and reinvestment relief further de-risk startup investments. Without these, nearly 50% of investors would not invest at all.

Enhancing market competitiveness

Europe's VC allocation is five times lower than the US, yet it generates the

same number of unicorns per dollar invested. This demonstrates that start-ups are capital-efficient, and scaling tax incentives can significantly boost their competitiveness.

Sustainability and ESG-aligned investments

Tax incentives targeting green innovation and deep-tech sectors can help European firms capitalise on 65% export growth in low-carbon technologies. ESG-aligned funds, combined with fiscal incentives, would further drive sustainable investment.

Facilitating cross-border investments

SEIS/EIS funds often enable foreign investors to participate in early-stage European startups.
Harmonising tax incentives across the EU would enhance cross-border capital mobility, reducing friction in startup funding across Member States.

Increasing startup survival and scalability

SEIS-backed firms grow 23% faster but have higher failure rates due to riskier bets. Meanwhile, EIS-backed firms demonstrate sustainable revenue and job growth, proving that structured tax incentives at different stages optimise risk allocation for investors and startups alike.

Policy lessons from the UK's SEIS & EIS

- 75% of firms credit these schemes for enabling their growth.
- Unicorns like Just Eat, Monzo and Revolut were backed by SEIS/EIS at early stages.
- Compliance and funding caps remain limitations, however the scheme demonstrates how strategic tax incentives build a sustainable startup ecosystem.

Action #3 Update public funding strategy for innovative companies [34]

List of evidence

- EU firms are more likely to respond to targeted policy incentives. The probability that EU firms will invest in energy efficiency, cleantech or innovation is 20% higher when support is targeted.
- Only 5% of EU innovation funding goes to startups directly.

[34] Note: More information on this topic under next Chapter "Proposed Solutions". Action 3.

In late 2024 and early 2025, Europe has been shifting priorities to strategic industries within the framework of a global context that encourages additional effort in areas that are relevant to the development of new technologies and growth in innovation, enabling resources is fundamental to achieve radical innovation.

Most European investments today fall mostly into the category of green (around €400 to €700 billion per year[35]) and digital transition, with some specific areas that are becoming more strategic as part of both verticals. Some suggested that public funding is not enough and that digital and green transitions (especially the latter), need the private sector: "relevant, public investment alone cannot expand on the scale needed, even combining national and European efforts". [36]
Europe has put together a system that directly or indirectly supports the financial development of many new digital and green technologies with examples such as the Multiannual Financial Framework (MFF) and the Recovery and Resilience Facility (RRF), which allocates around €660B for the period 2021-2027 to, among others, climate action. This is relevant under the startup and scaleup lenses, as Europe is internationally recognised as a hub for climate and green tech startups.
The EU Digital Decade programme provides a cohesive framework that outlines a set of policies enabling both current and future founders to compete on a level playing field.
Europe is a major backer of frontier technologies, and numerous startups and scaleups continue to grow and scale thanks to a series of grants that stem from European public money. Since the beginning of Horizon Europe (the 9th framework programme that started in 2021 and is set to end in 2027), a total of €95B in funding has been divided in three main pillars.

[35] Occasional Paper Series, "Capital Market Union: Deep Dive", Five Measures to foster a single market for capital. No 369. Alexia-Styliani Arampatzi, Rebecca Christie, Johanne Evrard, Laura Parisi, Clement Rouveyrol, Fons van Overbeek.
[36] Idem.

Pillar I
Scientific breakthroughs

European Research Council (ERC)
Funding frontier research
€16.1B

Marie Sktodowska-Curie Actions (MSCA)
Support researcher mobility & training
€6.6B

Research Infrastructures
Developing and integrating world-class research facilities
€2.4B

€25 billion

Pillar II
Scientific breakthroughs

Supports large collaborative projects across six thematic areas

Digital/Industry/Space
€15.3B

Climate/Energy/Mobility
€15.1B

Food/Bioeconomy/Agri/Environment
€8.9B

Health
€8.28

Culture/Creativity/Inclusive Society
€2.3B

Civil Security for Society
€1.6B

Funds EU Missions addressing societal challenges like cancer, smart cities, and climate action

Managed by DGs (RTD, CNECT, ENER, CLIMA,)| alongside Joint Research Centres (JRCs) and Public-Private Partnerships (PPPs).

The EU publishes "calls" for project proposals.

Researchers, companies, and institutions can apply and often do as consortia.

€53.5 billion

Pillar III Disruptive innovation & startups

EIC & EIC Fund

€6.5B for grants (Accelerator/ Transition/ Pathfinder)
€3.5B for equity

One-stop-shop approach: Pathfinder, Accelerator, Transition, Step, EIT Fund

Innovation ecosystem

Strengthens collaboration via ecosystem-building activities and innovation networks
€0.5B

European Institute of Innovation and Technology (EIT)

Funds & accelerates key sectors like climate, health, and digital
€3B

€13.5 billion

Horizontal programme Widen participation across Europe

Support less-developed regions in building research and innovation capacity

Spreading Excellence

Supporting research and innovation capacity
€2.9B

R&I system

Promotes collaboration and knowledge sharing among research institutions
€0.5B

Managed primarily by the European Commission's DG RTD with support from agencies like REA and JRC.

€3.4 billion

Figure 35. Horizon Europe programme.
Source: "Startups backed by the EU's Framework Programmes", March 2025.

Why Europe should update its public strategy for innovative companies

The innovation investment gap: falling behind global competitors

Europe is lagging behind the US and China in terms of both public and private investment in innovation. The EU's public funding for innovation is six times lower than the US, and Europe's VC market is five times smaller. While European startups generate the same number of unicorns per dollar invested as the US, the lack of growth capital severely limits their ability to scale globally. Without a modernised innovation strategy, Europe risks losing its competitive advantage in emerging technologies such as AI, quantum computing, and biotech.

More strategic allocation of public funds

Currently, only 5% of EU innovation funding directly benefits startups, even though they are the most agile and disruptive drivers of technological breakthroughs. Europe needs to prioritise startup-driven innovation in its financial frameworks, ensuring that funds from programmes like Horizon Europe, the Recovery and Resilience Facility (RRF), and the Multiannual Financial Framework (MFF) actively support the commercialisation of breakthrough technologies.

Targeted policy incentives increase innovation adoption

Research shows that EU firms are 20 percentage points more likely to invest in cleantech, energy efficiency, and R&D when incentives are targeted. Countries like the US and UK have successfully used tax schemes (e.g., EIS, SEIS) to de-risk investment in high-tech industries, attracting billions in private funding. Europe should modernise its fiscal policies to create stronger incentives for venture capitalists, angel investors, and corporate funds to invest in deep tech, AI, and sustainability-driven startups.

Aligning with the global shift toward green & digital innovation

With the European Green Deal and Digital Strategy, the EU has positioned itself as a leader in climate tech and deep-tech-driven transformation. However, without stronger financial incentives for startups, these sectors will struggle to scale. The green transition alone requires €400–700 billion per year, far beyond what public funding alone can provide. The private sector must be better integrated into EU industrial policy, with co-investment mechanisms and risk-sharing models designed to attract more private capital.

A regulatory framework that encourages scale

Europe has historically focused on risk mitigation in regulation, often at the expense of scalability and market growth. The current regulatory environment makes it difficult for innovative companies to scale beyond their national markets, creating fragmentation that hinders EU startups from competing globally. A more harmonised EU-wide framework (a potential 28th regime) would reduce red tape, enable cross-border investment, and

ensure a level playing field for scaling businesses.

Leveraging Europe's strengths: deep-tech and research hubs

Despite its challenges, Europe produces some of the world's leading deep-tech and research-driven startups, particularly in biotech, AI, quantum computing, and space technology. However, these companies often struggle to attract late-stage capital, leading to technology transfer losses to the US and Asia. Updating Europe's innovation strategy should include dedicated funding instruments for high-risk, high-reward sectors, as well as faster commercialisation pathways for research-backed startups.

Strengthening public-private partnerships

Successful models like Germany's High-Tech Gründerfonds (HTGF) and France's BPI France show that public-private investment funds can de-risk high-growth startups. Europe should expand co-investment schemes, ensuring that government-backed funding is matched by venture capital and institutional investors. This would mobilise private capital more efficiently, reducing the reliance on subsidies and improving capital recycling.

Arguments for updating of public funding strategies for innovative companies

Higher impact through targeted policy incentives

Studies show that EU firms are 20% more likely to invest in cleantech, energy efficiency, and innovation when financial support is targeted. This highlights the need for precision funding mechanisms that align with strategic industry priorities.

Addressing the startup funding imbalance

Despite startups driving radical innovation, only 5% of EU innovation funding goes directly to them. Increasing this allocation would enhance technology commercialisation, improve economic resilience, and create more globally competitive European firms.

Bridging the private investment gap

The green and digital transitions require massive private sector participation. Public funds alone (€400–700 billion per year) cannot scale up the required investment levels. The EU must mobilise venture capital, private equity, and corporate funding alongside government-backed programmes.

Leveraging the EU's financial frameworks for startups

The Multiannual Financial Framework (MFF) and the Recovery and Resilience Facility (RRF) allocate €660 billion for climate action between 2021–2027. However, without a startup-specific mechanism, much of this capital is locked in large-scale corporate projects rather than startup-driven innovation.

Horizon Europe's strong ROI

Since 2021, Horizon Europe has allocated €95 billion, leading to €400 billion in enterprise value from just €12 billion in startup funding—a 33x ROI. Expanding startup access to this programme would maximise Europe's economic return on innovation investments.

Enhancing competitiveness against global counterparts

Public funding for innovation in Europe is six times lower than in the US. Without better startup integration into EU industrial policy, the region risks losing its edge in deep tech, climate tech, AI, and space tech, as emphasised by the Draghi Report (2024).

Strengthening the EU Digital Strategy

The EU Digital Strategy offers a unified regulatory framework, but financial backing remains insufficient. Increasing direct funding to frontier technologies and high-growth startups would help level the playing field for European founders competing with US and Chinese rivals.

Boosting private sector confidence in risky investments

Europe needs to encourage business angels, venture capitalists, and funds of funds to back early-stage and high-risk ventures. Government-backed co-investment schemes, coupled with tax incentives for strategic industries, could reduce risk perception and accelerate funding flow into critical sectors.

Main takeaways:

1. Europe needs a strategic shift in investment to scale innovation

- Europe's startup landscape, especially in **deep tech**, has strong potential but lacks sufficient capital to scale.
- Only **5% of EU innovation funding** reaches startups, despite high returns.
- A new strategy must **unlock long-term capital** through structural reforms in **pension funds, tax incentives, and public funding.**

2. Three priority actions to bridge the investment gap

Action #1: Unlock pension and insurance fund investment in venture capital

- **Pension funds in Europe manage €9 trillion** yet allocate only 0.02–0.04% to VC—far below US counterparts (which invest ~14%).
- The US benefits from pension funds contributing **over 50% of VC and PE capital.**
- Increasing EU pension fund VC allocations could **transform capital availability**, especially for **later-stage rounds.**
- Barriers include:
  - National-level pension system governance.
  - Regulatory constraints (IORP II, Solvency II).
  - Conservative investment culture.
- Recommended solutions:
  - Incentivise or **de-risk VC allocations** (e.g., via guarantees or fund-of-fund or VC models).
  - Encourage national reforms and best practices (e.g., Netherlands, UK's Mansion House reforms, Germany's WIN, France's Tibi).
  - Advocate for EU-level guidelines to support long-term diversification into high-growth sectors.

Action #2: Expand tax incentives for business angels, corporates & VCs

- Tax incentives **boost startup investment and innovation** (firms that raise equity are **13% more likely to innovate).**
- Europe has successful precedents:
  - UK's SEIS/EIS schemes driving early-stage capital.
  - France's R&D tax credit, Ireland and Estonia's startup tax models.
- Key benefits:
  - Encourages **cross-border capital flow.**
  - Attracts **corporate and angel investors** into the ecosystem.
  - Targets **deep tech and export-driven startups.**
- Needs:
  - Strategic targeting of high-impact sectors.
  - Better harmonisation across EU jurisdictions to reduce complexity for cross-border investors.

Action #3: Modernise public funding strategy for innovation

- Current public funding is **heavily focused on green and digital transitions**, but startups only get a fraction.
- Horizon Europe (2021–2027) has delivered **€400B in enterprise value from €12B invested**—a compelling ROI.
- Priorities:
  - **Increase startup-specific allocation** within EU instruments.
  - Support **high-risk, high-reward sectors** like climate tech, AI, biotech, space.
  - Use programmes such as the MFF and RRF to **blend public and private funding** more effectively.
  - Calls for a **policy update to match market needs** and maintain global competitiveness.

3. Fragmentation remains a core challenge

- Europe's financial system is fragmented at the **regulatory, capital, and ecosystem levels**, slowing policy implementation.
- Fragmentation extends to **banking, VC activity, and cross-border investments.**
- Unified capital market and harmonised regulatory frameworks are needed to **accelerate funding flows** and **scale startups across borders.**

4. Summary of key recommendations

- **Increase VC participation** of pension and insurance funds via incentives, regulation updates, and de-risking mechanisms.
- **Enhance tax incentives** to stimulate private investment, especially in early and growth stages.
- **Update public funding** allocation strategies, prioritising **scalable and high-impact startup innovation.**

IV. Mapping policy at a national level for the three actions

Key themes

- National policies for each action
- Countries' examples and comparisons
- Best practices and expected impact on the startup ecosystem

Action #1: Pension funds and insurance fund allocation to European venture capital

In Europe, pension funds have been indicated as a potential solution to increase the money flow to innovative companies, especially when approaching larger rounds of investment. In this instance, tickets are higher, and companies that need to continue scaling require a higher investment.
Europe has almost six times less funding allocated from pension funds to startups and scaleups in comparison with the United States. Opening the option for pension funds and/or insurance funds to invest in either venture capital or, even directly, through equity investment in startups, could be a game changer for the region.

Key policies carried out in Europe to support this action:

European countries are increasingly implementing initiatives to encourage pension funds to invest in venture capital (VC), aiming to stimulate innovation and economic growth. Below is an overview of notable efforts:

Additionally, some other major examples and practices outside the EU are worth acknowledging.
The table below details various initiatives across multiple countries where pension funds are leveraged to stimulate innovation and economic growth through investments in venture capital, small to mid-sized companies, and startups. In Denmark, the Danish Growth Capital, via Dansk Vækstkapital, channels capital into venture, small-cap, and mid-cap funds to support Danish companies, with the aim of creating up to 20,000 jobs over the next decade. Germany's Zukunftsfonds focuses on

	Policy allowing VC investment	Restrictions / regulations	Pension asset allocation to VC
Estonia	Pension funds (mainly second-pillar mandatory funds) may invest in VC and startups. A 2014 reform liberalised pension investing, removing previous asset class limits.	Up to 30% of fund assets can now be allocated to VC, startups, and local businesses.	Relatively higher flexibility compared to other EU countries. Estonia shows a willingness to modernise its pension investment rules to support innovation and local capital markets.
France	Under the Tibi Initiative, institutional investors (including pension funds and insurers) are encouraged to invest in tech through large-scale pledges. The government plays a convening role.	No specific legal mandate, but strong government coordination and visibility for institutional participation.	Allocation is growing due to policy encouragement. Phase 1 raised €5B (2019-2022), Phase 2 aims for €7B (2023-). France is seen as one of the leading EU countries in mobilising long-term capital for tech and VC.
Italy	Italy uses tax incentives and regulatory changes to indirectly encourage pension fund investment in VC. The 2024 Competition Law ties tax breaks to pension funds' VC allocations.	Tax breaks apply only if 5% of investments go to VC by 2025, rising to 10% by 2026. There are no outright prohibitions, but incentives are conditional.	Currently low, but expected to increase due to strong incentives. The approach is gradual, relying on fiscal advantages to nudge pension funds toward VC investments.
Sweden	Swedish public pension funds (e.g., AP1-AP4) can invest in VC. AP6 fund focuses on unlisted assets, including VC. Historically, exposure was more limited but has been increasing.	Since 2013, reforms allow more risk-taking and diversification in AP funds. AP6 is exclusively focused on unlisted assets, while AP1-AP4 have restrictions based on liquidity and risk constraints.	Growing allocation, but still modest compared to US and UK. Sweden's model distinguishes between general pension funds and a dedicated fund (AP6), offering a strategic approach to VC exposure.

Figure 36. Policies snapshot and pension asset allocation to VC. ESNA analysis.

facilitating institutional investments in venture capital by providing diversification and risk reduction through public co-investment, with a target of mobilising €30 billion by 2030 to support growth-stage tech startups. In the Netherlands, Invest-NL works alongside pension and insurance funds to fund innovation and scaleups, having invested over €1 billion by January 2025, using pooled investment vehicles and diversified strategies to manage risk in compliance with regulations. The United Kingdom offers several initiatives, including the British Business Bank's Growth Fund and the Local Government Pension Scheme (LGPS) Investment Pooling, which support access to startup financing and regional economic development by pooling pension fund resources. Additionally, the British Patient Capital (BPC) aims to mobilise investment into high-growth British companies, having already managed over £3 billion. In the United States, the California Public Employees' Retirement System (CalPERS) manages a portfolio exceeding $450 billion, with significant allocations into venture capital funds to support innovation and economic development while ensuring long-term returns and meeting the retirement needs of public employees.

Denmark	**Practice:** Danish Growth Capital
	Description: The Danish Growth Capital is a partnership between the Danish state and Danish pension funds to invest in a wide range of funds, which in turn invest in all types of industries. The money is channelled to Danish companies through Dansk Vćkstkapital, which conducts fund-of-funds and targets venture, small-cap and mid-cap funds. The capital of Dansk Vćkstkapital stems from Danish pension funds, three quarters of which is a loan invested by Vćkstfonden. Dansk Vćkstkapital only makes commercial investments in funds managed by professional, private managers with specialised knowledge within the types of companies they invest in. Furthermore, investments in funds can only be made if, in addition to the capital supplied by Dansk Vćkstkapital, they can be supplemented by private capital. The funds can invest in all types of industries and as such Dansk Vækstkapital can invest in: – Small & mid cap funds – that is, funds that invest in companies of up to 1,000 employees and with a turnover of up to DKK 1,250 million. – Venture funds. – Funds which offer subordinated loan capital. There have been three phases - Dansk Vækstkapital I, Dansk Vækstkapital II and Dansk Vækstkapital III.
	(Expected) impact on the startup ecosystem: The investments made by Dansk Vækstkapital II are expected to support companies in creating 15,000 to 20,000 jobs over the next 10 years, driving employment growth and strengthening industries critical to economic development.
Germany	**Practice:** Zukunftsfonds
	Description: Zukunftsfonds aims to mitigate regulatory constraints in investments through professionally managed funds (fund-of-funds), ensuring diversification, risk management, and thus more favourable capital treatment under Solvency II and IORP II. Additionally, public co-investment provides additional risk reduction, indirectly supporting institutional compliance. This practice helps institutional investors by a diversification via fund-of-funds and public backing lowers perceived risk and capital requirements for institutional investors.
	(Expected) impact on the startup ecosystem: Germany's Zukunftsfonds aims to mobilise institutional investors to invest up to €30 billion by 2030 into VC, supporting growth-stage tech startups
Netherlands	**Practice:** Invest-NL
	Description: Invest-NL invests alongside pension and insurance funds to stimulate innovation, VC, and scale-up funding. By using pooled investment vehicles and diversified investment strategies, AP Funds manage risk exposure in line with regulations.
	(Expected) impact on the startup ecosystem: Until January 2025, Invest-NL programme reached 135 investments, representing more than l1bn, divided by equity, debt, funds and guarantees.
United Kingdom	**Practice:** Mansion House Reforms - British Business Bank Growth Fund
	Description: The Growth Fund within the British Business Bank was created to give pension schemes access to promising startup investment opportunities.
	(Expected) impact on the startup ecosystem: The Growth Fund intends to enable £7 billion in capital to significantly boost startup financing.
	Practice: Local Government Pension Scheme (LGPS)
	The Local Government Pension Scheme (LGPS) Investment Pooling initiative consolidates the assets of individual local authority pension funds in England and Wales into larger, regional investment pools. Around 30% of public-sector Defined Benefit (DB) assets are invested in the UK, mostly through investment in UK listed equities, UK Government Bonds and property. This approach allows funds to make larger, diversified investments, including in high-growth areas such as venture capital, private equity, and infrastructure. By pooling resources, LGPS funds gain access to opportunities previously unavailable to smaller, individual funds, enabling them to contribute to regional economic development while achieving cost efficiencies.

United Kingdom	**(Expected) impact on the startup ecosystem:** The Local Government Pension Scheme (LGPS) pooling reforms have increased capital access for startups by enabling investments in venture capital and growth funds, supporting innovation in sectors like technology and clean energy. Pension funds now represent a significant portion of venture capital funding, with $660 billion allocated to alternatives as of recent years.
	Practice: British Patient Capital (BPC)
	Established in 2018 as part of the British Business Bank to mobilise institutional investment into growth-oriented British companies and VC funds. It is structured as a government-backed "patient capital" vehicle, it reduces risk perception by offering long-term, diversified exposure. Additionally, pension funds that invest indirectly through BPC see reduced compliance burdens and capital set-asides.
	(Expected) impact on the startup ecosystem: The BPC programme already achieved 1,350 innovative companies in portfolio with more than £3B assets under management (as of 31 March 2024).
United States	**Practice:** California Public Employees' Retirement System Total Fund Investment Policy
	CalPERS, one of the largest U.S. public pension funds, governs the fund's strategy for managing its $450+ billion portfolio. The practice emphasises diversification, including private equity and venture capital, to optimise returns while balancing risk. By investing in private equity funds, including those targeting startups, CalPERS supports high-growth companies that drive innovation. These investments aim to generate superior long-term returns and promote economic development while ensuring sustainability and meeting the retirement needs of California's public employees.
	(Expected) impact on the startup ecosystem: CalPERS has contributed to a $785.6 billion allocation by US. public pension plans to global private capital from 2019 to 2023, including investments in venture capital funds supporting startups.

Table 5. Best practices identified for Action 1. ESNA best practices catalogue

The following table highlights how both the United Kingdom and the United States leverage pension funds to support startup ecosystems through targeted investment policies. The *Mansion House Reforms – British Business Bank Growth Fund* and the *Local Government Pension Scheme (LGPS) Investment Pooling* in the UK, alongside the *California Public Employees' Retirement System (CalPERS) Total Fund Investment Policy* in the US demonstrate a strategic approach to unlocking capital for startups. The UK initiatives focus on consolidating local authorities' pension funds and channelling investments into high-growth areas such as venture capital and infrastructure, whereas CalPERS diversifies its vast portfolio by including venture capital investments to support technology-driven startups. Both strategies share the common goal of increasing liquidity in the startup ecosystem while maintaining risk management and achieving long-term financial sustainability. The significant financial impact—£7 billion from the Growth Fund, £660 billion in pension funds under LGPS, and $785.6 billion from US public pensions—illustrates the potential of pension funds as a powerful tool for economic development and innovation.

Action #2: Tax incentives for angel investment: – connecting business angels, corporates and VCs with the ecosystem

To foster entrepreneurship, innovation, and economic expansion, targeted tax incentives are essential in attracting more angel and venture capital investment. By reducing financial risk, these incentives create a more appealing investment landscape, encouraging funding for early-stage and high-growth startups. This, in turn, enhances capital flow within the startup ecosystem, accelerating business development and job creation.

	Policy allowing VCinvestment	Restrictions / regulations	Pension asset allocation to VC
United Kingdom	UK pension (and insurance) funds may invest in venture capital and unlisted startups under a "prudent person" approach – there is no statutory prohibition. The government is actively encouraging more pension investment in VC; for example, the 2023 "Mansion House Compact" saw major defined-contribution (DC) schemes pledge ~5% of default fund assets into unlisted equities (including VC) by 2030 (UK government, regulators prompt to clear way for long-term investment funds).	Investors must apply a "prudent person" approach when dealing with VC and unlisted startups.	With over £1.1 trillion in pension assets, the government seeks to unlock investments to drive economic growth. Proposals include merging Local Government Pension Scheme (LGPS) assets and consolidating DC schemes into "megafunds" to manage £500 billion by 2030.
United States	US pension funds (public and private) have been allowed to invest in venture capital and other private equity since the late 1970s. A key change was a 1978–79 clarification to ERISA (Employee Retirement Income Security Act) that embraced the prudent investor principle – this opened the door for pension money to flow into VC funds. As a result, US pensions became major limited partners in venture and buyout funds. Today, they are among the **largest sources of VC capital**.	Limits: there is **no explicit legal cap** on pension allocations to VC/PE in the US; investments are governed by fiduciary duty and diversification standards under ERISA. Public pension plans set their own target allocations for "alternative assets." Many large plans target ~10–15% for private equity (which includes venture). Some state laws historically restricted risky assets, however most have shifted to prudent-investor rules. In short, U.S. pensions can invest in VC as part of their portfolio mix, subject to prudent risk management – there is no blanket restriction.	Current allocation: **moderate** – venture capital is a subset of US pension funds' sizable private equity portfolios. On average about 9% of public pension assets are in PE (Pension Report - American Investment Council). Within that, venture capital typically accounts for a smaller portion (e.g. a few percent of total assets). For example, one study found 85% of US public pensions hold private equity (Pension Report - American Investment Council). Thus, while **not prohibited**, US pensions' direct VC allocations are only a **small single-digit percentage** of assets – albeit far higher than in Europe.

Table 6. Pension funds analysis. ESNA analysis.

Key policies carried out in Europe for effective tax incentive schemes:

Tax credits & deductions – advocate for policies that offer tax credits or deductions for individuals and institutions investing in startups, making venture capital more attractive.

Capital gains tax reductions – support reduced or deferred capital gains taxes

for investments held over a defined period, incentivising long-term commitments to innovation-driven enterprises.

Loss offsets – encourage policies that allow investors to offset losses against taxable income, mitigating the risks associated with early-stage and high-risk investments.

Sector-specific incentives – push for tailored tax benefits in strategic industries such as technology, green energy, and social enterprises, fostering investment in sectors with high economic and social impact.

Simplification & accessibility – ensure that tax incentive programmes are clear, easy to access, and well-promoted, enabling broader investor participation and reducing administrative burdens.

By implementing these strategic tax policies, policymakers can increase liquidity in capital markets, provide startups with the funding needed to scale, and create a more resilient, competitive, and innovation-driven economy. Such an ecosystem can in turn ensure successful exits for angel investors, which would lead to a virtuous circle of new incoming angels. As mentioned in their joint publication, Business Angels Europe and Business Angels Deutschland highlight that these newcomers "always ask for proven 'results'.[37]

1. The United Kingdom's SEIS and EIS schemes

Tax incentives for venture capital investors and angel investors are essential in fostering a thriving startup ecosystem, particularly in high-risk, high-growth industries. Best practices from the UK's SEIS and EIS schemes demonstrate how well-structured tax relief programmes can drive substantial early-stage investment, addressing the funding gap that often prevents startups from scaling. These schemes reduce the perceived risk for investors by offering income tax relief, capital gains tax exemptions, and loss relief, effectively de-risking startup investments. As a result, nearly two-thirds of angel investors in the UK have credited these programmes for their willingness to back startups, providing a critical influx of capital that fuels innovation and job creation. The evidence suggests that without such incentives, a significant portion of high-growth startups would struggle to secure early funding, stalling their potential for expansion and economic contribution.

SEIS/EIS-type of incentives would encourage more angel investors, pension funds, and corporate investors to allocate capital toward innovative, high-risk startups. Furthermore, incorporating fund-of-funds or VC structures and targeted tax incentives for deep tech and sustainability-focused startups could align with Europe's investment landscape with its strategic innovation goals.

[37] Angel Investment Research in Europe - Documentation & Debate, Business Angels Deutschland e.V. (BAND) & Business Angels Europe (BAE)

2. Relevant initiatives in Europe

	Key tax benefits	Positive outcomes	Negative outcomes
Belgium	**Tax incentive scheme:** Tax Shelter for Startups		
	30-45% tax reduction on investments up to €100,000 per year: **exemption from withholding tax** on dividends for 4 years.	Increased equity financing for startups; encouraged private investment.	Complex eligibility criteria for companies.
France	**Tax incentive scheme:** Madelin Tax Reduction		
	25% income tax reduction on investments up to €50,000 (€100,000 for married couples or civil partnerships): **wealth tax reduction** of 50% of the investment amount, which can be capped depending on the type of young innovative company.	Encouraged individual investment in SMEs: provided significant tax relief for high-net-worth individuals.	High minimum holding period of 5 years may deter some investors.
Germany	**Tax incentive scheme:** INVEST – Grant for Venture Capital		
	Business angels investing in innovative startups receive a purchasing grant worth **15% of the sum invested**. Investors can receive an exit grant if they sell their shares. The amount provided is equivalent to **25% of the capital** gains from the sale and thus more or less covers the tax imposed on the profit from the sale.	The maximum purchasing grant per investor is €100,000. The maximum amount eligible for funding that can be invested in a single company per year is €3,000,000. The shares must be held for a minimum of three years.	
Ireland	**Tax incentive scheme:** Employment and Investment Incentive (EII)		
	Up to 40% income tax relief on investments up to €250,000 per year: **CGT exemption** on disposal after 4 years.	Supporting SMEs in securing necessary capital; encouraging domestic investment.	Perceived as less attractive compared to UK's EIS/SEIS due to lower relief rates.
Lithuania	**Tax incentive scheme:** Tax incentive Programme		
	The exemption is aimed at reducing the tax burden on profits earned from selling shares in startups after a minimum holding period (typically 3 years).	If the shares are sold after this period, the gains can be exempt from personal income tax.	
Portugal	**Tax incentive scheme:** Programa Semente (Seed Programme)		
	25% income tax deduction on investments up to €100,000 per year: **CGT exemption** on gains from eligible startups.	Promoted early-stage investments: strengthened the startup ecosystem.	Limited awareness among potential investors.
Spain	**Tax incentive scheme:** Spanish Startup Law		
	Up to 50% income tax deduction for investments in new or recently created companies: (i) **deduction base** up to €100,000 per year; (ii) **capital gains rollover relief** if reinvested in another startup.	Aims to boost investment in startups; enhancing Spain's attractiveness for entrepreneurs.	Implementation is recent; long-term outcomes yet to be fully assessed.

United Kingdom	**Tax incentive scheme:** Enterprise Investment Scheme (EIS)		
	30% income tax relief on investments up to £1 million per year: (i) **Capital Gains Tax (CGT) exemption** on disposal after 3 years; (ii) **loss relief** against income or capital gains.	Encourages substantial angel investment, fostering a vibrant startup ecosystem: attracted over £32 billion in investments, supporting the creation of nearly 400,000 jobs.	Potential funding for low-prospect companies: (i) encourages premature exits for tax-free gains; (ii) funding gap for later-stage companies.
	Tax incentive scheme: Seed Enterprise Investment Scheme (SEIS)		
	50% income tax relief on investments up to £200,000 per year: (i) **CGT exemption** on disposal after 3 years; (ii) **loss relief** against income or capital gains.	Stimulates early-stage investment; supported numerous startups in their initial phases.	Similar concerns as EIS regarding the quality of funded companies and potential for premature exits.
	Tax incentive scheme: Venture Capital Trusts (VCTs)		
	30% income tax relief on investments up to £200,000 per year: (i) **tax-free dividends**; (ii) **CGT exemption** on disposal of shares.	Provides a vehicle for indirect investment in startups; raised over £41 billion since inception.	High risk due to focus on early-stage companies; recent low returns and high fees.

Table 7. Tax incentives in Europe. ESNA analysis.

The following table showcases diverse national best practices aimed at fostering startup ecosystems through government-led financial initiatives in Italy, Singapore, Sweden, and Canada. While each country has tailored its approach to its economic landscape, all share a common objective: increasing capital flow into startups and early-stage enterprises. Italy's *Decreto Rilancio* focuses on tax incentives to encourage individual investments in innovative startups, leading to a significant contribution to the national venture capital market. Similarly, Singapore's *Enterprise Financing Scheme (EFS)* provides structured financial assistance to enterprises across different growth stages, helping 10,000 businesses access funding. Sweden's *Swedish Venture Initiative (SVI)* takes a fund-of-funds or VC approach, leveraging European investment resources to channel capital into SMEs and impact startups, with 75% of the funds directed toward them. Meanwhile, Canada's *Venture Capital Action Plan (VCAP)* strategically mobilises private-sector investment by attracting a diverse range of institutional investors, resulting in over $1.356 billion in funding. Despite variations in mechanisms—whether tax incentives, loan accessibility, or public-private fund structures—these initiatives illustrate the effectiveness of targeted national policies in strengthening startup ecosystems and venture capital markets worldwide.

Canada	**Practice:** Venture Capital Action Plan (VCAP)
	Description: The Venture Capital Action Plan aims at increase the private-sector investment in early-stage companies through venture capital funds. The plan attracted both pension funds and institutional investors.
	(Expected) impact on the startup ecosystem: The VCAP has raised $1.356 billion from a diverse set of investors that included pension funds, high-net-worth individuals, corporations, banks, etc.
Italy	**Practice:** Decreto Rilancio
	Description: The Decreto Rilancio introduced a tax incentive offering a 50% personal income tax deduction for individuals investing in the share capital of innovative startups. 1) Eligibility requirements: direct or indirect investment eligibility through collective investment vehicles (OICR). Startups must be registered in the special section of the Companies Register as innovative startups. 2) Investment limitations: maximum deductible investment is €100,000 per year, with the potential for a maximum IRPEF saving of €50,000 annually 3) De minimis Regulation: the benefit is limited by EU regulations on de minimus aid, capping total assistance to €200,000 for each startup over a three-year period. 4) Carryforward of Unused Deductions: investment must be held for at least 3 years, with penalties for early exit.
	(Expected) impact on the startup ecosystem: The Decreto Rilancio has enabled 8,000 individuals to invest per year, with a €200 million total of investments and a €90 million total of deductions, which translates into 20% of the total Italian Venture Capital market.
Singapore	**Practice:** Enterprise Financing Scheme (EFS)
	Description: The Enterprise Financing Scheme (EFS) is a comprehensive tool to enable Singapore enterprises to access financing more readily across all stages of growth. It covers seven areas to address enterprises' financing needs: green loans, working capital loans, fixed asset loans, venture debt loans, trade loans, project loans, as well as Merger & Acquisition loans.
	(Expected) impact on the startup ecosystem: The EFS has assisted approximately 10,000 enterprises in accessing necessary financing.
Sweden	**Practice:** Swedish Venture Initiative (SVI)
	Description: The Swedish Venture Initiative is among the first first fund-of-funds that EIF has invested into, combining resources from the European Structural and Investment Funds (ESIF) resources and from the European Fund for Strategic Investments (EFSI), the heart of the European Commission's Investment Plan for Europe. The fund-of-funds, using ESIF resources, supports early stage venture capital fund management teams with a strong track-record and commitment to invest into SMEs in Sweden. Co-investment from EFSI by the EIF into the underlying funds encourages private investors to commit additional resources into these funds. The amount of the fund-of-funds is over SEK 1 billion (approximately €110 million).
	(Expected) impact on the startup ecosystem: 75% of the venture capital investment in the whole country was raised by impact startups.

Table 8. Best practices identified for Action 2. ESNA best practices catalogue.

Action #3: Update public funding strategy for innovative companies

a) Ensure more funding is allocated to startup

b) Ensure that more public funding goes to convertible loans instead of subsidies

Key policies carried out

Around the globe, not just around Europe, many nations have implemented targeted funding programmes to ensure more capital flows into startups, thereby fostering innovation and economic growth.

The table below outlines several initiatives across different countries aimed at providing alternatives to public funding. Denmark's Export and Investment Fund (EIFO) offers both loan financing and equity investment to companies ranging from early-stage startups to more mature businesses. EIFO's investments, typically ranging from DKK 5 to 200 million (approx. €700,000 to €27 million), focus on enterprises with a market-ready product or those nearing market launch, and it has already supported more than 30 companies. In the United States, the Silicon Valley Innovation Programme (SVIP), launched by the Department of Homeland Security, connects startups with government agencies to address critical homeland security challenges. The programme provides up to $2 million in non-dilutive funding over 24 months to help startups develop prototypes and transition successful projects to production. In Israel, the Yozma Fund 2.0 incentivises institutional investments in Israeli venture capital funds, offering matching contributions from the Israel Innovation Authority and the opportunity for institutions to buy out the government's stake at a low interest rate. This programme has mobilised approximately $155 million in institutional investments, supporting local startups. In India, the Startup India Seed Fund Scheme (SISFS) provides INR 9.45 billion (approx. €100.5 million) in funding to assist startups at critical stages such as proof of concept, prototype development, and market entry. The scheme is expected to benefit around 3,600 startups, providing essential financial support for their growth and commercialisation. Collectively, these initiatives highlight the role of government-backed funding in fostering innovation, supporting startups, and driving economic growth.

Denmark	**Practice:** Export and Investment Fund (EIFO) - Loan financing and Equity investment
	Description: Denmark's Export and Investment Fund (EIFO) provides a single point of access for all Danish companies in need of risk-tolerant government financing to unfold their full potential. From small fast-growing startups to all the well-established small, medium-sized and large companies that Denmark is full of. EIFO provides companies with financing for their development plans, either in the form of loans or equity investments. In terms of loans, EIFO provides special loans to startups in the very early stage of their development to the more mature companies planning to invest in operation, development or change of ownership. For highly scalable, innovative company with global ambitions, equity investments are suggested to get risk-tolerant capital.
	(Expected) impact on the startup ecosystem: Every year, EIFO invests in many new enterprises across sectors with investments typically ranging from DKK 5 to 200 million. Focus is on enterprises with a position in a clearly defined market with a market-ready product or where product development is nearing completion and the product is ready for market launch. It includes already a portfolio of more than 30 companies.
India	**Practice:** Startup India Seed Fund Scheme (SISFS)
	Description: Startup India Seed Fund Scheme (SISFS) with an outlay of INR 9.45 billion, provides financial assistance to startups for Proof of Concept, prototype development, product trials, market entry, and commercialisation. Funding from angel investors and venture capital firms becomes available to startups only after the proof of concept has been provided. The Seed Fund will be disbursed to eligible startups through eligible incubators across India.
	(Expected) impact on the startup ecosystem: The Startup India Seed Fund Scheme has enabled crucial financial assistance to startups in India at various stages of their development, particularly focusing on proof of concept, prototype development, product trials, market entry, and commercialisation. Approximately 3.600 startups are expected to benefit from SISFS.
Israel	**Practice:** Yozma Fund 2.0
	Description: The Yozma Fund 2.0 is a new programme aimed at encouraging investments by institutional entities in Israeli venture capital funds that support Israeli companies. The fund targets institutional investors such as insurance companies, pension funds, and provident funds, providing them with a unique mechanism to enhance returns on their investments in Israeli venture capital funds over the next 20 months. The Israel Innovation Authority will contribute 30 cents for every dollar of institutional investment in Israeli venture capital funds as part of the programme. Additionally, it will waive its relative share of returns from these investments, either fully or partially, with the aim of enhancing returns for the institutions involved. 1) During the first four years from the date of investment in the institutional fund, the institutional entity can buy out the government's stake at an annual cumulative interest rate of 1%. 2) After the initial four years, the institutional entity can buy out the government's stake at an annual cumulative interest rate of 5% (retroactively from the date of the fund's initial investment). 3) In the event of a loss-making fund, the Israel Innovation Authority will proportionally share the loss with the institutional investor based on its investment share.
	(Expected) impact on the startup ecosystem: The Yozma Fund 2.0 has moblised insurance companies, pension funds, and provident funds to invest in Israeli venture capital funds. It has allocated about $155 million to 18 institutional entities in Israel to support investments in local venture capital funds that will in turn finance startups.

Poland	**Practice:** Polish Development Fund
	Description: Polish Fundusz Rozwoju S.A. together with its subsidiaries creates a group of financial and advisory companies for entrepreneurs, local governments and individuals investing in sustainable social and economic development of Poland. In addition to PFR S.A. acting as the parent company and strategic center, the PFR Capital Group also includes: PFR Ventures – the largest fund of funds in the region of Central and Eastern Europe offering repayable financing to innovative companies from the SME sector through selected financial intermediaries, e.g. VC / PE funds or business angels; The priorities of the PFR Capital Group are: infrastructure investments, innovations, entrepreneurship development, export and foreign expansion of Polish enterprises, support for local governments, implementation of the Employee Capital Plans programme and service of foreign investments.
	(Expected) impact on the startup ecosystem: The Polish Development Fund (PFR) has managed around €1.3 billion, enabling SMEs to scale and expand. This initiative has contributed to a sharp increase in Poland's venture capital market, with startups raising over €500 million in 2022 alone, reinforcing innovation and entrepreneurship across the region, according to PFR Ventures.
Portugal	**Practice:** Startup Voucher
	Description: Startup Voucher refers to financial support for startups with projects within the green and digital areas, amounting to €30,000 per startup (provided it is an incorporated company in Portugal). Projects must be developed by startups that have (or want to develop) digital, scalable, green business models, products or services, and in sectors with a higher intensity of technology and knowledge, or that value the application of R&D results in the production of new goods and services.
	(Expected) impact on the startup ecosystem: The Startup Voucher has enabled funding to 228 approved projects since its creation.
United States	**Practice:** Silicon Valley Innovation Program
	Description: The Silicon Valley Innovation Program (SVIP), launched by the U.S. Department of Homeland Security (DHS) Science and Technology Directorate, is designed to connect innovative startups and small businesses with government agencies to address critical homeland security challenges. By tapping into the expertise and cutting-edge technologies of the startup ecosystem, SVIP aims to drive forward-thinking solutions that enhance national security. The programme offers U.S. and international startups up to $2M in non-dilutive funding over 24 months to carry out prototype projects and possibly transition successful projects to production.
	(Expected) impact on the startup ecosystem: The SVIP has enabled solutions to critical homeland security challenges created by startups.

Table 9. Best practices identified for Action 3 a) and b). ESNA best practices catalogue.

c) Co-investment focused on angel investment and co-investment focused on VC

The following table lists relevant initiatives related to co-investment. Business Finland Venture Capital Ltd is a state-owned company that invests in venture capital funds managed by private companies, primarily focusing on early-stage SMEs in Finland. These companies, typically in their seed and startup phases, are developing products and business models that have yet to break into the market. Business Finland's involvement has contributed to a 25-30% increase in venture capital investment over five years, facilitating access to funding for high-risk startups. In Sweden, Saminvest, a government-backed investment company, supports the venture capital ecosystem by investing in venture funds that provide capital to innovative startups and SMEs, helping to stimulate growth and innovation, particularly in high-potential sectors. Since its creation, Saminvest has enabled around $400 million in investments in over 200 startups. Meanwhile, Singapore's Startup SG Equity scheme fosters private sector investment into innovative, technology-focused startups by co-investing with qualified third-party investors and funding selected venture capital firms. This initiative has supported approximately 400 startups and attracted over 100 investors.

Finland	**Practice:** Business Finland Venture Capital Funds
	Description: Business Finland Venture Capital Ltd is a state-owned company steered by Business Finland, the Finnish Funding Agency for Innovation (Tekes, before 2018). The company invests in venture capital funds managed by privately owned management companies. The target funds make investments in early-stage SMEs domiciled mainly in Finland. Early-stage companies are companies in their seed and startup phases. Typically, the products and/or business models of these companies are still in their early development stages, and they have not made a breakthrough onto the market. Emergence of new early-stage VC fund managers and funds also helps universities and research institutions to find financing to their research spin-offs.
	(Expected) impact on the startup ecosystem: Business Finland Venture Capital Ltd has increased access to early-stage funding, having contributed to a 25-30% increase in venture capital investment within five years, helping high-risk startups in their seed and growth phases.
Sweden	**Practice:** Saminvest
	Description: Saminvest is a Swedish government-backed investment company established to strengthen the venture capital ecosystem in Sweden. Its mission is to enhance the availability of capital for innovative startups and small and medium-sized enterprises (SMEs) by investing in venture capital funds. This support aims to stimulate growth and innovation in the Swedish economy, particularly in sectors with high potential for development. It has a total capital allocation of approximately SEK 3.4 billion (around €300 million).
	(Expected) impact on the startup ecosystem: The Saminvest has enabled approximately $400 million in investment in over 200 innovative startups, since its creation.
Singapore	**Practice:** Startup SG Equity
	Description: The Startup SG Equity scheme aims to stimulate private sector investments into innovative, Singapore-based technology startups with intellectual property and global market potential. As part of the Startup SG Equity scheme, the government will: 1) co-invest with independent, qualified third-party investors into eligible startups; 2) invest in selected venture capital firms that will in turn invest into eligible startups, through a fund-of-funds approach.
	(Expected) impact on the startup ecosystem: The Startup SG Equity has enabled support to approximately 400 startups and attracted over 100 qualified third-party investor.

Table 10. Best practices identified for Action 3 c). ESNA best practices catalogue.

Main takeaways:

1. Innovation & deep tech investments

The EU aims to support AI, quantum, biotech, robotics, and space technologies while simplifying regulations to foster startup growth through a unified "28th legal regime."

2. Public procurement & strategic industries

Policy updates will promote European preferences in procurement for critical sectors, aiming to boost local innovation and security.

3. European public funding system

Public investment, mainly through Horizon Europe (€95B for R&I), is key to supporting innovation, alongside coordinated efforts from the European Investment Bank and European Investment Fund.

4. Pension & insurance funds for VC

Policymakers should consider redirecting pension and insurance funds toward European venture capital to increase funding for scaling startups, drawing from UK and US models.

5. Tax incentives for angel & VC investment

European countries should adopt best practices, such as the UK's SEIS, to increase early-stage investment through tax credits, capital gains reductions, and loss offsets.

6. Public funding measures

Proposed reforms include increasing funding allocation to startups, shifting subsidies to convertible loans, and establishing co-investment models with angel investors and venture capitalists.

V. Suggested solutions and KPIs

Key themes

- Specific recommendations for each action
- Proposed roadmap with implementation and milestones
- Key Performance Indicators per action

1. Pension fund and insurance fund allocation to European venture capital

Description

European pension funds currently invest significantly less in VC compared to their US counterparts. This disparity arises from regulatory constraints imposed by European frameworks such as IORP II and Solvency II, as well as national-level caps on unlisted equities. By adopting targeted regulatory adjustments and proactive policy initiatives, the European Union can enhance access to VC investments, benefiting both pension beneficiaries and the broader innovation-driven economy.

Recommended regulatory and policy actions

Recommendation
EIF-led funds-of-funds development

Explanation & rationale
Develop EIF-led funds-of-funds to bring EU institutional investors into cross-border financings of large pan-EU VC funds.

Recommendation
Fine-tune regulations

Explanation & rationale
Fine-tune regulations for larger VC funds and insurers investing in them.

Recommendation
Eliminate or relax caps on unlisted equities (VC)

Explanation & rationale
Remove or significantly relax explicit national percentage caps on pension funds' investments into unlisted equities, allowing pension managers greater flexibility to diversify and capture higher returns from venture capital opportunities. This mirrors the US ERISA model, which does not impose fixed asset-class ceilings.pan-EU VC funds.

Recommendation
Risk reduction
a) Reduce risk classification for VC fund-of-funds investments

Explanation & rationale

Clearly differentiate fund-of-funds investments - such as the EIF - from direct VC investments by categorising them as lower-risk assets. By doing this, pension funds face lower regulatory capital or risk penalties, increasing attractiveness and allowing greater allocations into professionally managed, diversified VC fund-of-funds vehicles.

Recommendation

b) Open door for reclassifying Certain VC fund-of-funds or VC investments

Explanation & rationale

Specifically designate certain structured investments, such as European Investment Fund-backed or other institutionally diversified VC fund-of-funds, as moderate-risk or prudent investments rather than high-risk under EU solvency and pension fund regulation. Such classification would reduce capital charges under Solvency II and make these funds more accessible and attractive to pension investors.

Recommendation

Establish recommended minimum allocation into VC funds

Explanation & rationale

Encourage European pension funds to allocate at least 5% of their long-term capital into diversified either smaller funds (which cannot afford the expensive infrastructure required to get funding from a pension) and/ or insurance funds, and/or funds-of-funds. Such a recommendation, while not mandatory, provides pension trustees with regulatory comfort and justification to invest in higher-return, innovation-driven assets, aligning with best practices established by successful US endowment funds and large public pensions.

Table 11. Explanation and rationale of recommended regulatory for action 1. ESNA analysis.

EU level

Fine-tune regulations for larger VC funds and insurers investing in them.

Develop EIF-led funds-of-funds to bring EU institutional investors into cross-border financings of large pan-EU VC funds.

Reduce risk classification for VC fund-of-funds investments

Clearly differentiate EIF-backed funds-of-funds from direct VC, allowing lower regulatory capital requirements and making them more attractive to pension funds.

Open door for reclassifying certain VC fund-of-funds

Designate these investments as moderate-risk or prudent under Solvency II to lower capital charges and attract pension money.

Establish recommended minimum allocation into VC funds

Encourage EU pension funds to allocate at least 5% of long-term capital into diversified VC fund-of-funds, providing regulatory comfort without being mandatory.

National level

Ensure PFIs invest on commercial terms to attract private capital, particularly from institutional investors like pension funds and insurers.

Develop private and Pillar II pension funds to expand capital pools.

Eliminate or relax caps on unlisted equities (VC)

Remove national limits on pension fund investments in unlisted equities to allow higher allocation to VC, inspired by the US ERISA model.

Expected impact for the startup ecosystem

Higher long-term returns

Historically, VC has significantly outperformed traditional public equities and fixed-income assets.

Enhanced portfolio diversification

VC provides exposure to economic sectors not correlated to public market fluctuations, thereby reducing overall portfolio volatility and risk.

Economic development and innovation

Supports the European ecosystem of innovative startups, aligning investments with ESG and societal impact objectives.

Greater portfolio resilience

Especially in volatile market environments

Key Performance Indicators

1 Investment allocation & growth

% of pension funds allocated to PE.

% of pension funds allocated to VC.

€ total annual investment in VC by pension funds.

€ total annual investment in VC by insurance funds.

2 Performance & returns

Value of VC investments compared to passed returns.

2. Tax incentives to increase angel and venture capital investment (and other mechanisms for cash-flow)

Description

Support or implement new policy strategies to encourage more private individuals and/ or firms (angel investors and venture capital funds) to invest in startups and scaleups by offering them tax benefits/ incentives.

Potential incentives: three main topics may

be highlighted: a. Income tax deductions or credits, which allow investors to deduct a percentage of their investment from their taxable income, reducing their overall tax liability. b. Capital gains tax exemptions/ reductions: profits made when investors sell their shares in a startup could be partially or fully exempt from capital gains tax, especially if they hold the investment for a certain period. c. Loss relief: if the startup fails, investors can offset their losses against other income, reducing the financial risk of investing in startups.

Recommended regulatory and policy actions

Recommendation
Develop and implement tax incentives

Explanation & rationale
Introduce policies similar to the UK's SEIS to encourage angel investment.

Recommendation
Streamline access and awareness

Explanation & rationale
Improve the accessibility and promotion of tax incentives to ensure investors are aware and can take advantage of them easily.

Recommendation
Certification process for eligible startups

Explanation & rationale
Establish a certification mechanism to ensure funds are directed to start-ups that meet pre-defined innovation and scalability criteria.

Recommendation
Extend tax incentives to VC fund investments

Explanation & rationale
Expand eligibility of tax benefits to include capital invested directly into VC funds, not just startups, to strengthen the entire startup financing ecosystem and attract institutional and individual investors.

Recommendation
Introduce compliance mechanisms

Explanation & rationale
Ensure tax incentives are used as intended through regular audits and penalties for misuse.

Table 12. Explanation and rationale of recommended regulatory for action 2. ESNA analysis.

EU level
(No specific actions listed at EU level)

National level
Implement preferential tax treatments for equity investments in startups and VC funds and reduce regulatory and tax frictions.

Develop and implement tax incentives

Introduce policies like the UK's SEIS to encourage angel investment.

Streamline access and awareness

Improve accessibility and promotion of tax incentives so investors know about and can benefit from them.

Certification process for eligible startups

Establish a mechanism to certify startups that qualify for tax-incentivised investment based on innovation and scalability criteria.

Key Performance Indicators

1 Tax incentive implementation & reach
of EU countries that have implemented EIS-like tax schemes.

€ total money deployed under the tax incentive scheme.

2 Startup funding & job creation
of startups that raised funding using the scheme.

# of jobs created by funded startups.

3 Fiscal impact & efficiency
€ government tax revenue from supported startups vs. tax incentives granted (e.g., social security, corporate profit tax, capital gains tax).

*Disclaimer: our recommendation is to set a long-term goal. We recommend checking the Table: comparing different tax break schemes for angel & venture capital in Europe.

3. Update public funding strategy for innovative companies

a) Ensure more funding is allocated to startups & b) ensure more public funding is convertible loans instead of subsidies/grants;

Description

This action aims to ensure more public funding is directed toward startups and that a greater proportion of these funds are deployed as convertible loans instead of grants. Additionally, it recommends co-investment models focusing on angel investment and venture capital to stimulate private-sector engagement.

Key objectives include:
- Increasing the proportion of public funding allocated to startups beyond the current 5%.

• Shifting from grant-based funding to loan or equity-based financing to create a reinvestment cycle, compounding available funds over time.
• Allowing the majority of shareholders to choose the loan repayment method - either through a direct cash payment (with low or zero interest rate) or equity allocation, ensuring long-term financial sustainability without distorting cap tables.
• Ensuring clean cap tables, with strict requirements that key team members are full-time (with a maximum of 5% exceptions).

Recommended regulatory and policy actions

Recommendation
Increase allocation of public funds to startups

Explanation & rationale
Revise current public funding frameworks to ensure a greater proportion is invested in startups.

Align funding mechanisms with the Draghi Report's recommendations to maximise impact and economic return.

Recommendation
Transition from grants to convertible loans

Explanation & rationale
Ensure startups receive convertible loans instead of grants, with the option to convert into a grant if the company fails (excluding fraudulent cases).

Enable startups to choose repayment methods - either a percentage of revenue/equity or a direct repayment to the government.

Recommendation
Establish co-investment funds for angel investment and VC

Explanation & rationale
Develop a structured co-investment framework modeled after successful initiatives.

Public-private co-investment mechanisms should be designed to attract private capital, reducing reliance on government funding.

Recommendation
Single market integration

Explanation & rationale
Further integrate and deepen the single market to foster innovation (long-term goal).

Recommendation
Stock market fragmentation

Explanation & rationale
Reduce stock market fragmentation to align with the CMU agenda.

Recommendation
EIF and EIB instruments

Explanation & rationale
Expand the capacity and instruments of the EIF and the EIB to support VC growth funds.

Recommendation
Streamline funding application processes

Explanation & rationale
Reduce bureaucratic barriers to ensure proposals can be submitted and processed within one month.

Introduce digital platforms to facilitate funding applications, tracking, and reporting.

Table 13. Explanation and rationale of recommended regulatory for action 3 a) and b). ESNA analysis.

EU level

Further **integrate and deepen the single market** to foster innovation (long-term goal).

Reduce stock market fragmentation to align with the CMU agenda.

Expand the capacity and **instruments of the EIF and the EIB** to support VC growth funds.

National level

Enhance the **role of national Public Financial Institutions** (PFIs) in developing the VC ecosystem.

Increase allocation of public funds to startups

Revise national funding frameworks to boost startup investment and align with recommendations like the Draghi Report.

Transition from grants to convertible loans

Provide startups with convertible loans instead of grants, with repayment flexibility or grant conversion in case of failure.

Establish co-investment funds for angel investment and venture capital

Develop public-private co-investment schemes to crowd in private capital, modelled on successful programs.

Streamline funding application processes

Digitise and simplify application procedures to reduce bureaucracy and improve processing speed and transparency.

Key Performance Indicators

1 Funding allocation & efficiency

% of total public innovation funding allocated to startups and scaleups.

€ amount of public funding directed toward startups.

€ amount returned to public bodies for reinvestment (from loan repayments or exits).

€ amount in the repayment pipeline (pending reimbursement from beneficiaries).

Impact & outcomes

2

# of new jobs created through publicly funded startup projects.

% revenue growth of startups receiving public support (YoY).

# of funded projects resulting in market-ready innovations.

# of funded projects that failed to commercialise innovation.

# of failed projects resulting in loan write-offs or unrecovered grants.

Operational efficiency

3

Average time from proposal submission to funding decision (target: ≤ 30 days).

% of funding processes completed within benchmark timeframe.

Ensuring clean cap tables, with strict requirements that key team members are full-time (with a maximum of 5% exceptions).

c) Co-investment focused on angel investment and venture capital

Description

This action proposes the development of structured co-investment frameworks between public institutions and private investors – specifically targeting angel investors and VC funds.
By reducing reliance on public funds alone, the approach aims to leverage private capital to multiply the impact of innovation financing, as only 5% of public funding goes to startups. The co-investment mechanism should include clear eligibility criteria, risk-sharing provisions, and sector prioritisation aligned with strategic innovation goals (e.g. green and digital transitions). The objective is to stimulate earlier-stage investments and close the funding gap for startups during critical growth phases.

Recommended regulatory and policy actions

Recommendation
Design and launch public-private co-investment vehicles

Explanation & rationale
National or EU-level agencies (e.g. EIF) should partner with private investors to establish co-investment funds, ensuring clear governance, transparent selection criteria, and appropriate risk-sharing.

Recommendation
Incentivise angel investors and VC participation

Explanation & rationale
Provide tax incentives or matching schemes to increase private investor appetite, especially for early-stage and high-risk startups.

Recommendation
Create legal frameworks to standardise co-investment practices

Explanation & rationale
Harmonise definitions, legal instruments, and investor rights across the EU to ensure smooth cross-border co-investment.

Recommendation
Deploy dedicated technical assistance and capacity-building programmes

Explanation & rationale
Support angel networks and emerging fund managers to professionalise operations and comply with co-investment requirements.

Recommendation
Monitor outcomes and scale successful models

Explanation & rationale
Implement monitoring systems to track fund performance and gradually scaleup initiatives based on evidence of market impact and financial return.

Table 14. Explanation and rationale for action 3c)'s recommended regulation and policy. ESNA analysis.

Key Performance Indicators

Capital allocation & efficiency

1

% of total public startup funding deployed via co-investment schemes.

€ amount of public capital deployed in co-investment with angel investors.

Leverage ratio of public to private capital in co-investment schemes.

Outcomes & performance

2

# of startups funded via co-investment schemes.

% of funded startups that reached market with a validated product/service.

# of funded startups that failed or closed before commercialisation.

€ amount of public investment returned via buyouts or exits.

€ value of expected repayments still in the pipeline.

Average time from investor commitment to fund disbursement.

Economic & market impact

3

# of new jobs created by startups funded through co-investment.

% average annual revenue growth of co-invested startups.

% of angel investors participating in co-investment who re-invest in subsequent deals.

# of fraudulent or non-compliant applications flagged or rejected.

Main takeaways:

1. Increase pension and insurance fund investment in VC

European pension and insurance funds invest significantly less in VC compared to the US due to regulatory constraints (IORP II, Solvency II, and national caps on unlisted equities). Regulatory reforms can unlock more capital for startups and drive innovation.

2. Tax incentives to boost angel and VC investment

Policies should encourage private investment in startups through tax benefits such as income tax deductions, capital gains tax exemptions, and loss relief. These incentives reduce investment risks and improve capital flow into startups.

3. Shift public funding towards convertible loans

Public funding should prioritise startups and transition from grants to convertible loans. This shift enables a reinvestment cycle, ensuring sustainable funding while giving startups flexibility in repayment.

4. Structured co-investment frameworks

Public-private co-investment models should be expanded. These models attract private capital, share risks, and focus on strategic sectors like green and digital innovation.

Sources

Private equity delivers the strongest returns for retirees across America – 2024 Public Pension Study (2024, July)
2024-AIC-Pensions-Report_final.pdf

What is the Enterprise Investment Scheme (EIS)? (n.d.)
https://www.british-business-bank.co.uk/business-guidance/guidance-articles/finance/what-is-the-enterprise-investment-scheme-eis

Annual Survey of Investment Regulation of Pension Funds and Other Pension Providers – 2022 edition. (2022)
https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/asset-backed-pensions/2022-Survey-Investment-Regulation-Pension-Funds-and-Other-Pension-Providers.pdf

Annual Survey of Investment Regulation of Pension Providers - 2024 edition. (2024)
https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/asset-backed-pensions/2024-Survey-of-Investment-Regulation-of-Pension-Providers.pdf

Nation deal regulations France - 2024 Survey of Investment Regulation of Pension Providers (n.d.)
https://www.ipe.com/countries/france/

German government to review investment rules for Pensionskassen. (2024, February 29)
https://www.ipe.com/news/german-government-to-review-investment-rules-for-pensionskassen/10071866.article

Spain: Sweeping pension reforms fail to get off the ground. (n.d.)
https://www.ipe.com/top-1000-pension-funds/spain-sweeping-pension-reforms-fail-to-get-off-the-ground/10075408.article

Want to invest in startups? Your pensions may already be doing it. (2019, January 23)
https://sifted.eu/articles/pensions-invested-in-vc

UK government, regulators prompt to clear way for long-term investment funds. (2024, September 11)
https://www.ipe.com/news/uk-government-regulators-prompt-to-clear-way-for-long-term-investment-funds/10075559.article#:~:text=The%20panel%20was%20established%20in,to%20unlisted%20equities%20by%202030

How Much Did Polish Startups Raised In 2024: H2 2024 Deals Breakdown. (2025, January 31)
https://therecursive.com/how-much-did-poland-startups-raised-in-2024-h2-2024-deals-breakdown/

INVEST – Venture capital grant. (2024, March)
https://www.bmwk.de/Redaktion/EN/Publikationen/Invest/invest-venture-capital-grant.pdf?__blob=publicationFile&v=6

Tax Incentives for Investment and Innovations. (2024, August 29)
https://finmin.lrv.lt/en/competence-areas/taxation/tax-incentives-for-investment-and-innovations/

Semente. (n.d.)
https://startupportugal.com/pt/programs/semente-2/

The Portuguese Start-Up environment. (n.d.)
https://www.portugalresidencyadvisors.com/start-up-visa-portugal/

Occasional Paper Series, Capital markets union: a deep dive, Five measures to foster a single market for capita by Alexia-Styliani Arampatzi, Rebecca Christie, Johanne Evrard, Laura Parisi, Clément Rouveyrol, Fons van Overbeek. (2025).

Draghi, M. The future of European competitiveness. Part A and Part B. (2024)

Leyen, U. Political Guidelines for the next European Commission 2024-2029. (2024).

DIRECTIVE (EU) 2016/2341 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs) (recast)
https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016L2341

DIRECTIVE 2009/138/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (recast)
https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0138

EU Startup Ecosystem: Driving change past, present and future How and Why we should all act together. ESNA. (2024, November).

Accelerating Europe – Part 1 of 3 – The State of European Innovation and Why It Matters. Innovation Radar Bridge. Created by Dealroom.co, Dealflow.eu. (2025, January).

Startups backed by the EU's Framework Programmes. Innovation Radar Bridge. Created by Dealroom.co, Dealflow.eu, EU Startups. Supported by ESNA. (2025, March).

Coste, Oliver. Europe, Tech and War.

EUDIS Business Accelerator – Driving through defence innovation. (n.d.)
https://eudis.europa.eu/eudis-tracks/business-accelerator_en

State of the European Tech 23. Atomico (n.d.
https://2023.stateofeuropeantech.com/

Levels.fyi End of Year Pay Report 2024. (n.d.)
https://www.levels.fyi/2024/?from=home

Hofstede, Geert; Jan Hofstede, Gert; Minkov, Michael. Cultures and Organizations: Software of the Mind. (2010).

Letta E. Much more than a market – Speed, Security, Solidarity Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens. (2024).

Countries' relationship to risk (n.d.)
geerthofstede.com

Wiley & Sons Ltd, John. The Authors. International Journal of Finance & Economics. (2023).

Savings and investments union (n.d.)
https://finance.ec.europa.eu/regulation-and-supervision/savings-and-investments-union_en

ESNA Best Practices Catalogue (n.d.)
https://esnalliance.eu/en/explore

Angel Investment Research in Europe Documentation & Debate, Business Angels Deutschalnd e.V (Band) & Business Angels Europe (BAE). (n.d.)
https://www.business-angels.de/wp-content/uploads/2025/01/2025.01.17_Angel-Investment-Research-in-Europe-Documentation-Debate.pdf

Andrez, Paulo. Zero Risk Startup. (2024).

Acronyms

AI | Artificial Intelligence
AUM | Assets Under Management
BA | Business Angel
BAE | Business Angels Europe
CalPERS | California Public Employees Retirement System
CAP | Common Agricultural Policy
CGT | Capital Gain Tax
CEE | Central and Eastern Europe
CEO | Chief Executive Officer
CMU | Capital Market Union
DG | Directorate General
EBAN | European Business Angels Network
ECB | European Central Bank
EFS | Enterprise Financing Scheme
EIB | European Investment Bank
EIC | European Innovation Council
EIF | European Investment Fund
EIFO | Export and Investment Fund
EIS | Enterprise Investment Scheme
EIT | European Institute of Innovation and Technology
EPL | Employment Protection Legislation
ERC | European Research Centre
ESG | Environmental, Social and Governance
ESNA | Europe Startup Nations Alliance
EU | European Union
FP | Framework Programme
GDP | Gross Domestic Product
GIE | Economic Interest Group
GPS | Global Positioning System
IF | Insurance Funds
IPO | Initial Public Offering
IoT | Internet of Things
IORP | Institutions for Occupational Retirement Provision
IP | Intellectual Property
IT | Information Technology
KPI | Key Performance Indicator
LGPS | Local Government Pensions Scheme
MFF | Multiannual Financial Framework
PE | Private Equity
PEPP | Pan-European Pension Product
PF | Pension Funds
R&D | Research & Development
ROI | Return on Investment
RRF | Recovery and Resilience Facility
SaaS | Software As A Service
SEIS | Seed Enterprise Investment Scheme
SISFS | Startup India Seed Fund Scheme
SIU | Savings and Investment Union
SME | Small and Medium Enterprise
STEM | Science, Technology, Engineering and Mathematics
SVI | Swedish Venture Initiative
SVIP | Silicon Valley Innovation Programme
TRL | Technology Readiness Level
UK | United Kingdom
US | United States
VC | Venture Capital
VCAP | Venture Capital Action Plan
YoY | Year on Year