

WORKSHOP SUMMARY

Investing in Europe's Competitiveness:

Capitalising on Tech Innovation

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Investing in Europe's Competitiveness Initiative

In its role as a global, nonpartisan, nonprofit think tank, the Milken Institute has launched an initiative called Investing in Europe's Competitiveness. Our aim is to develop actionable steps to catalyse the investment needed in the European Union (EU) and United Kingdom (UK) to meet productivity challenges and generate growth, aligned with themes diagnosed in reports by Mario Draghi, Enrico Letta, and Christian Noyer, as well as Prime Minister Keir Starmer's Missions. The initiative is centred on three pillars:

- 1. Attracting new investment into infrastructure and decarbonisation
- 2. Closing the innovation tech gap
- 3. Investing in Europe's defence and security priorities

On 23 June 2025, the Milken Institute hosted a workshop at the Royal Society of Chemistry in London, *Investing in Europe's Competitiveness*, bringing together leaders from infrastructure, tech, policy, finance, and academia. This workshop sought to identify opportunities and challenges—as well as how public and private finance can be best deployed to address them—regarding the first two pillars.

Background

A workshop breakout session titled "Capitalising on Tech Innovation" was attended by leaders from tech, policy, finance, and academia to surface the opportunities and pain points to boosting Europe's tech ecosystem and closing the innovation gap with other regions. The breakout provided participants an opportunity to discuss Europe's tech potential and the major barriers that they perceive limit the ability of tech companies in Europe to translate innovation into global leadership.

Mario Draghi's September 2024 report titled *The Future of European Competitiveness* provides a sobering assessment of Europe's tech sector amid fierce global competition, highlighting the widening gaps in tech investment, research output, and market concentration relative to the US and China.¹ The US maintains dominance in many advanced technologies, including AI, while China rapidly expands capacity and expertise across key technology sectors such as clean tech and fundamental AI research. Europe is struggling to keep up.

Yet, despite this highly competitive landscape, Europe possesses the essential ingredients necessary to build a thriving tech ecosystem of its own. Although fractured across markets, Europe maintains world-class financial companies and institutions, world-leading universities from the University of Cambridge to the Technical University of Munich and the Sorbonne, and hubs of innovation in cities such as London and Berlin. Europe has a formidable asset base to build upon.

However, to realise its potential, Europe needs policymakers, investors, founders, and academics to work across siloes to build an ecosystem that totals to more than the sum of its various parts. Without better market coordination and sustained increases in both public and private investment, Europe will continue to fall further behind in the critical technologies that will define future economic competitiveness. Returns to investing in European tech have actually been highly profitable over the past decade,² but if Europe hopes to be a global leader, it must maintain the same value at a much greater scale.

Themes from the Workshop

Europe needs more companies to expand the tech frontier and thereby assert global leadership. Workshop participants provided insights into how to achieve this goal, which can be grouped into several themes:

- 1. Greater access to capital, especially at the scale-up and initial public offering (IPO) stages
- 2. More effective place-based initiatives
- 3. Movement towards a single market in tech, with fewer frictions for companies scaling in Europe
- 4. Leveraging of Europe's global tech comparative advantage
- 5. Optimization of Europe's diverse pool of potential talent
- 6. A better story and clearer incentives so that everyone values Europe's innovation ecosystem

With world-class universities, established corporates, and leading finance companies, Europe demonstrates strong potential for global innovation leadership, but participants stressed that this strength is not translating into a robust innovation ecosystem capable of fostering and scaling European champions.

Greater Access to Capital, Especially at the Scale-Up and IPO Stages

Issue: Participants articulated that the largest gaps between Europe and the US in the successful scaling of national tech champions exist in the scale-up and IPO stages. Whereas the US is seeing pension funds and other institutional capital allocators moving into late-stage tech funding, Europe remains too reliant on old-fashioned bank lending alongside pension funds that are too conservative to move into the scale-up space. At the same time, deeper and more liquid capital markets in the US make it more attractive for European companies to take US investment money and scale into US markets, especially those aiming to eventually list in the US at higher valuations.

Participants also pointed out that a lack of talent with direct experience in scaling up companies (particularly within product management and sales and marketing) is contributing to a self-reinforcing cycle of underinvestment, as companies appoint US scale-up talent to deliver expansion in the US market at the expense of building a cadre of European talent that could become the next wave of European start-up founders.

Closing the Scale-Up Gap Requires Pension Funds to Step Up

Context: The Draghi report highlighted a widening gap in capital at the scale-up funding stage between the US and Europe.³ Although European scale-ups rely on a traditional financing model focussed on bank lending to subject matter experts, US scale-ups benefit more from financial support from US pension funds and endowments. US pension funds tend to allocate more than 10 per cent of their portfolios to private equity, venture capital (VC), and infrastructure investments. In contrast, EU pension funds allocated only 4.3 per cent of their portfolios to those asset classes in 2022.

Similarly, insurers located in the EU27 allocate less than 2 per cent of their portfolios to asset classes. Boosting allocation levels to those in the US would pour hundreds of billions of euros into European high-growth companies.⁴ Participants explained that this critical lack of funding is forcing promising tech companies to either look to the US for funding or scale back their ambitions.

Capital Market Reform Is Necessary to Ensure That Europe's Best-of-Breed Do Not Defect to the US

Founders seeking to exit through an IPO are increasingly considering listing in the US rather than Europe because of higher valuations, deeper liquidity, and greater flexibility around share structures. Fragmented European capital markets, complicated listing rules, and a lack of flexibility around share classes and dual listings are increasingly sending companies overseas, with notable examples such as Arm and Wise.

At the same time, relatively depressed valuations have caused European tech companies to become takeover targets for US private equity (e.g., Bain Capital's bid for Craneware, Thoma Bravo for Darktrace). Companies that are considering a US listing are likely to also prioritise company expansion into the US market, potentially armed with US pre-IPO private equity money, rather than maintaining a more European cap table and expanding throughout the European continent with a final listing in London or the EU.

Resolution: The scale-up and capital markets issues can be analysed separately, although solving one issue would help to solve the other.

There are likely many reasons that pension funds do not allocate as much to scale-up VC and growth equity in the EU as they do in the US. Survey and qualitative research are needed to understand how culture, regulation, the ability to deploy into the asset class at scale, knowledge of the asset class, and other issues create barriers to pension funds filling the funding gap. Solutions can then be devised for each barrier and then tested with asset allocators to determine how far the barrier can be overcome.

The Letta report⁵ provides a detailed description of the need for and the barriers to capital markets reform. Participants raised other issues that necessitate reform, from onerous listing requirements to less flexibility to issuing different kinds of share classes. Here, solutions must be tailored to address the range of barriers identified.

More Effective Place-Based Initiatives

Issue: Workshop participants emphasized the need to spread innovation beyond the few traditional European hubs because innovation-led growth has not been sufficient to increase living standards beyond superstar cities and to create the political coalitions necessary to sustain pro-innovation policies.

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Context: Europe is home to nearly half of the world's top 100 emerging innovation clusters,⁶ but these are highly concentrated within the continent's most affluent cities. These clusters have typically emerged in highly developed areas with advantageous factor endowments, while lower productivity areas often lack the right mix of policies, incentives, actors, and institutions to develop successful tech hubs of their own. Participants commented that many areas with important advantages are not being sufficiently commercialised because of the lack of intentional development strategies to build on these advantages.

However, international examples of best practice exist. In Michigan, automotive tech and mobility start-ups are flourishing once again as city planners have worked to revitalise their traditional automotive industry. Closer to home, Lille and Dortmund have developed specialised innovation hubs, reversing their post-industrial malaise. Outside Europe, case studies of emerging tech hubs can be found from Gujarat to Dubai. Europe could learn from such examples, spreading innovation into areas experiencing low productivity growth, such as outside the "golden triangle" in the UK, East Germany, or other post-industrial areas.

Resolution: To tackle how Europe can scale more tech hubs, we need to define the key ingredients for success: How have new tech hubs leveraged a coalition of academics, entrepreneurs, investors, policymakers, and corporate leaders to create an ecosystem that can encourage, commercialise, and scale innovation?

Once we define the prerequisites, we can map them across Europe, benchmark those with the greatest likelihood of success, and prescribe policy reforms that can be tested and iterated with stakeholders to identify proposals with the best chance of success.

Moving Towards a Single Market in Tech, with Fewer Frictions for Those Scaling in Europe

Issue: Participants discussed the European markets' persistent fragmentation across national boundaries. Despite efforts to create a unified European market in tech, companies continue to encounter a complex web of regulatory barriers that make scaling across borders both costly and time-consuming. Each of the 27 EU member states and the UK maintains its own tech regulators with distinct rules, compliance requirements, and supervisory approaches. No common European legal tech identity exists, for example, like that advocated for by <u>EU Inc.</u> In contrast, the single federal regulatory framework in the US allows companies to scale more seamlessly across state lines with a larger total addressable market than any one European market.

Context: The EU needs to become more of a single market in tech. Just as the UK and EU are collaborating on defence to the benefit of both, so too should they harmonise their approach to tech. Although in theory creating a single market might sound simple, in practice, creating such a market involves multiple dimensions, from disparate tax rules, talent mobility across the continent, access to company information in different jurisdictions, amongst other issues. Participants also mentioned certain rules actively hinder the ability of European tech companies to scale across the continent, which incentivises founders to look towards the United States, rather than to neighbouring countries, to more easily grow their businesses.

Resolution: To tackle the fragmented market for tech in Europe, we need to ascertain the different hurdles and frictions across multiple domains that inhibit scaling and understand how they alter decision-making and contribute to the magnitude of the problem. This work should consider multiple perspectives: from founders to VCs to corporates looking to adopt new technologies.

Once the problem set has been identified, potential solutions should be conceived and road-tested with the same stakeholders to ensure they are politically feasible and effective.

Leveraging Europe's Global Tech Comparative Advantage

Issue: Participants identified significant opportunity for Europe to leverage its competitive advantages in technologies critical to productivity growth, particularly in areas such as climate tech, AI services and applications, and autonomous robotics.

Context: Participants identified three main ways that Europe could best compete globally in the race for advanced technology:

- 1. Step into the partial void left in global leadership on clean tech.
- 2. Concentrate on the second wave of AI development, that is, its application layer.
- 3. Encourage European corporate and public sectors to lead the way on trialling and adopting new technologies.

Stepping into the Void

Participants discussed ways that European governments could more effectively differentiate their tech offerings in the global marketplace. The first is to incentivise deeper investment in areas where Europe leads, such as climate tech, particularly because US leadership in this area has slipped away since the last election. The second is to invest more in defence and dual-use technologies, given heightened geopolitical tensions and commitments to additional defence spending following Russia's invasion of Ukraine.

Winning the Application Layer

Although sovereign Al capabilities were a major topic during the wider tech discourse, participants focused more on the opportunities afforded by the development of 'killer apps' in this next technological wave, creating companies that develop specific products tailored to valuable use cases. Participants suggested that although Europe may have missed the boat on global leadership in large-scale computer infrastructure and foundation models (except for outliers such as France's Mistral), significant potential remains within the application layer of Al development to make Europe the place where you can deploy, per one participant.

Promoting Public- and Private-Sector Adoption

Underpinning the ambition to create the application layer for emerging technologies is an increased demand for European companies to more quickly trial, adopt, and scale innovations internally. Companies driven to survive and thrive through technological leadership should more proactively scan for new technologies; challenge legacy systems and processes; and partner with, invest in, or acquire technology solutions to increase enterprise value. These actions would not only increase productivity within Europe's existing corporate sector but also send a strong buy signal for Europe's start-up and scale-up community. A larger, more innovation-facing potential European customer base would also motivate native European tech companies to remain and scale in Europe, rather than search for new customers overseas, where corporate adoption has been stronger traditionally.

What is good for Europe's private sector is good for its public sector. One participant with experience in both government and the tech industry described myriad strategies that were either never actioned or siloed within one part of government. Capacity constraints, both in terms of personnel and skills, were also identified as barriers to scaling technology into local government, as an example. European governments should set an example of how best to uncover use cases to reimagine old ways of working and to procure locally made innovation, and help scale European tech companies in the process. Governments that are more agile in trialling, adopting, and scaling new European technologies, rather than defaulting to big American technology solutions, can catalyse tech ecosystems and lead by example.

Resolution: Each of these three areas would be approached separately.

Stepping into the Void

We have a separate workstream for the Defence Initiative, but research into climate tech needs to examine the specific barriers to scaling in this area so that effective solutions can be designed. This research should consider the barriers that companies must overcome from formation to growth, such as technical risk and prototype risk, and the barriers to scaling up climate-specific funds, which tend to involve more hands-on support and therefore have smaller portfolio sizes.

Winning the Application Layer

The so-called Productivity Paradox states that the impact of the computer age is everywhere except in the productivity statistics. Likewise, the largest leaps for productivity in AI will depend on whether the technology is practically designed and adopted for specific use cases that transform processes. How best should we connect capital, talent, needs, and solutions so that Europe can found and scale companies concentrating on the application layer of AI development? Research needs to investigate each stage of the innovation cycle and assess how policymakers can work with entrepreneurs, corporate leaders, and investors to accelerate AI solution creation and scaling.

Promoting Public- and Private-Sector Adoption

Linked to this issue is preparing Europe's public and private sectors to find, trial, scale, and adopt AI solutions to rethink processes and transform how they deliver value for customers and citizens. There are barriers specific to each sector. Therefore, they should be examined separately to tease out the specific issues and potential solutions for each.

Getting the Most Out of Europe's Diverse Pool of Potential Talent

Issue: Participants identified the underrepresentation of women and minorities in founder and leadership positions, and a shortage of technical skills in emerging areas such as AI and quantum computing.⁹

Context: The lack of community diversity in Europe's tech ecosystem limits the sector's ability to understand and serve diverse customer bases and potentially misses significant market opportunities (e.g., women's health¹0). Participants also discussed the need for a deeper commitment to not only developing more technical technology skills but also fostering a greater appetite for entrepreneurial activity and start-up skills.

Resolution: There are specific (and intersecting) barriers to tech inclusion for different communities. Research should explore the factors that, for example, inhibit women's efforts to found tech start-ups and companies' efforts to hire more women in the VC and scale-up capital investment community. Solutions could be tested with both communities as well as industry bodies to understand their likelihood of success.

A Better Story and Clearer Incentives So That Everyone Values Europe's Innovation Ecosystem

Issue: Europe's VC performance record is highly credible compared to those of its peers, but Europe's founders, investors, and supporters struggle to showcase the impact and returns that the sector is both having and might have with further support. To break through, Europe needs a more compelling narrative about its own tech potential.

Context: One participant mentioned a fact about the tech sector that eludes most of the public: "The UK government is the biggest venture capital LP in the country." Public money invests in the country's tech ecosystem, but most people are unaware of the extent of our collective 'skin in the game'. Participants highlighted the importance of building a wider public appreciation for—and participation in—countries' innovation ecosystems to not only create a coalition to sustain increased investment in the sector but also ensure that the gains from innovation are widely felt.

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Just as Alaska taxpayers receive an annual cheque for their share of the state's profits from fossil fuel extraction, so too could the profits from public tech investment be distributed to European taxpayers in the form of a dividend payment that sustains support for the sector. One participant suggested that a vehicle like Gordon Brown's 'baby bonds' (or more recent versions such as 'Invest America Accounts'¹¹) could help people to feel the benefits of national tech investment more broadly, in turn building support for policy proposals that promote greater research funding or immigration proposals that might otherwise be unpopular.

Resolution: All participants agreed that Europe, despite the barriers identified, has a compelling story to tell about its tech prowess, but has been unable to tell it convincingly.

To solve this issue, we must dive into the perceptions and misperceptions about European tech held by key audiences, including Europe's citizens. By engaging the public in the journey of investing in and reaping the benefits of tech-led growth, closing the innovation and tech gap could be seen as a popular mission, and not just a preoccupation of a privileged, nerdy elite. To address these misperceptions, solutions could focus on widening participation in the tech sector, spreading knowledge about the benefits of innovation, and highlighting incentives, institutions, and policies that might help break through to the public.

The workshop concluded with recognition that the hard work to unlock Europe's tech potential has only just begun. Continued engagement from investors, industry experts, academics, and policymakers is essential for developing concrete and actionable proposals.

Next Steps

Although each topical section above presents possible next steps, we propose to move forward with each workstream in the following three-step process:

- 1. Understanding the Problem Roundtable(s)
 - We will host a roundtable in the coming months, bringing together relevant stakeholders to provide feedback on our understanding of the different dimensions of the problem, gleaned from interviews and secondary literature.
 - These roundtables could be held in multiple jurisdictions so that geography-specific barriers can be teased out.
 - The output of these roundtables would be a specific problem space against which solutions would need to be designed.
- 2. Understanding the Solutions Roundtable(s)
 - Using the problem areas identified from the previous stage, we will conduct additional interviews and research in order to shortlist solutions.

• These solutions would be debated and refined at a roundtable with the stakeholders needed for their success, including asset owners, investors, policymakers, corporates, and innovators.

3. Hosting a Solutions Launch Event

- We will bring the identified solutions and associated issue brief to the attention of decision makers most directly relevant to the area.
- A launch event would complement a wider media strategy to get ideas into the public domain.

Endnotes

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- 10. Emma Kemble, Lucy Pérez, et al., "The Dawn of the FemTech Revolution," McKinsey & Company, February 14, 2022, https://www.mckinsey.com/industries/healthcare/our-insights/the-dawn-of-the-femtech-revolution; Katherine Church, "Bridging the UK's Gender Health Gap: Supporting Innovators in Women's Health," Health Innovation Network, September 19, 2024, <a href="https://healthinnovationnetwork.com/digital-health/bridging-the-uks-gender-health-gap-supporting-innovators-in-womens-health/#:~:tex-t=Unfortunately%2C%20this%20is%20a%20trend,women's%20health%20hubs%20in%20 England; see also "Milken Institute Launches New Women's Health Network, Former First Lady Jill Biden Joins as Its Chair," Milken Institute, April 29, 2025, https://milkeninstitute-launches-new-womens-health-network-for-mer-first-lady-jill-biden-joins-its-chair.
- 11. Michael Piwowar and Robert Shapiro, *The Economic Impact of Invest America Accounts* (Milken Institute, March 10, 2025), https://milkeninstitute.org/content-hub/research-and-reports/reports/economic-impact-invest-america-accounts.

Roundtable Attendees

Workshop Opening Panel

Moderator:

Karen Kornbluh, former United States Ambassador, Organisation for Economic Co-operation and Development

Speakers:

Vince Cable, former Secretary of State for Business, Innovation and Skills

Fabrizio Campelli, Head of Corporate Bank and Investment Bank, Deutsche Bank

Simon Johnson, Kurtz Professor of Entrepreneurship and Professor in Global Economics and Management, Massachusetts Institute of Technology

Capitalising on Tech Innovation Breakout

Moderators:

Karen Kornbluh, former United States Ambassador, Organisation for Economic Co-operation and Development **Simon Radford**, Programming and Policy Director, Europe, Milken Institute

Infrastructure and Decarbonisation Breakout

Moderators:

Bernice Lee, OBE, Research Fellow, Hoffmann Distinguished Fellow for Sustainability and Chair of Sustainability Accelerator Advisory Board, Chatham House **Aidan Irwin-Singer**, Associate Director of Policy, Europe, Milken Institute

Organisations Represented

Amazon Equinor Mirova

British Growth Partnership Eurazeo National Infrastructure

Chatham House Fingleton and Service Transformation Authority

Cisco Galvanize Novo Holdings

Darktrace Graphcore ServiceNow

Deutsche Bank House of Commons Siemens Energy UK &

Energy Intuit Ireland

Infrastructure Partners
Lakestar
Urban Partners

Milken Institute Attendees

Institute International

Laura Deal Lacey, ExecutiveSophie Eggar, Director,Vice President, MilkenEurope, Milken Institute

Petra Freddi, Managing Advisor, International,
Director, Europe, Milken Institute

Giancarlo Bruni, Senior
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