

Biotech and healthcare The venture capital and private equity perspective

As the voice of Europe's private equity and venture capital (PE/VC) industry and their investors, **Invest Europe is committed to ensuring that Europe's frameworks empower our industry to support and scale the continent's biotech and healthcare ecosystem, transforming world-class research into breakthrough innovation, new therapies, and high-value employment across Europe.**

However, key reforms are essential to strengthen Europe's competitiveness and strategic autonomy in this regard. Addressing the structural barriers that constrain this sector will be central to advancing Europe's broader economic and industrial agenda. By unlocking the full potential of biotech and healthcare – one of Europe's most strategic assets – we can ensure that the continent not only keeps pace with global competitors but leads in delivering innovation that drives prosperity, resilience, and better health for all.

Biotech and healthcare form a cornerstone of Europe's economy and society, developing new therapeutics, vaccines, medical technologies, and diagnostics while generating nearly 10% of total PE/VC-supported jobs. This role is becoming increasingly important in light of global megatrends, such as demographic shifts and the rising burden of chronic diseases, which continue to drive demand for innovative healthcare solutions.

Yet, Europe's current foundations of a globally competitive biotech and healthcare industry – a world-class research base, a maturing innovation ecosystem, and a growing cohort of entrepreneurial and industrial players – face pressure at home and rising competition abroad.

Early-stage venture fundraising has plummeted by over 80% from 2021 to 2022, remaining 46% below 2021 levels, while public funding commitments are 31% lower than in 2021, and investment into early-stage startups has dropped 66% since its peak, preventing startups and scaleups from accessing the financing they need to pursue high-risk R&D. These declines are compounded by fragmented regulation, lack of deep and integrated European capital markets, long and uncertain timelines to exits, and growing global headwinds that are reshaping investment flows – with Europe lagging behind other global economies, most notably the U.S., which are implementing protectionist policies and incentives luring capital and manufacturing capacity away from Europe. The consequences go far beyond economics. They affect Europe's capacity to deliver healthcare innovation to citizens, and maintain sovereignty over technologies that will define the next era of industrial and strategic power.

From the perspective of Europe's PE/VC industry – which plays a central role in financing, scaling, and supporting innovation-driven companies – these issues represent both a challenge and an opportunity. PE/VC is a key enabler of the biotech and healthcare sector: transforming research into investable businesses, bridging the gap between lab and market, and providing long-term strategic support to the companies that drive Europe's economic growth and our health and industrial sovereignty. Yet the current environment continues to constrain that potential.

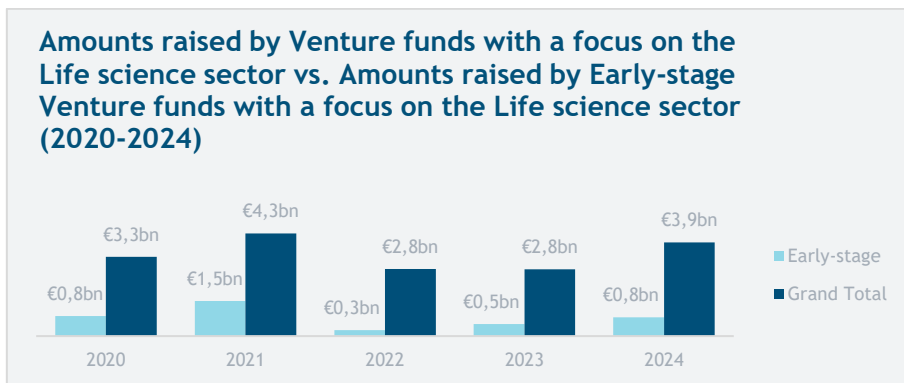
This paper outlines the key actions required to secure Europe's biotech and healthcare future:

1. Structuring the financial ecosystem to unlock investment at all stages and from all sources
2. Ensuring public funding complements private capital
3. Promoting regulatory harmonization and enhancing efficiency
4. Creating a European end-user market for biotech and healthcare
5. Harnessing data and emerging technologies
6. Strengthening the entrepreneurial workforce

- Structuring the financial ecosystem to unlock investment at all stages and from all sources

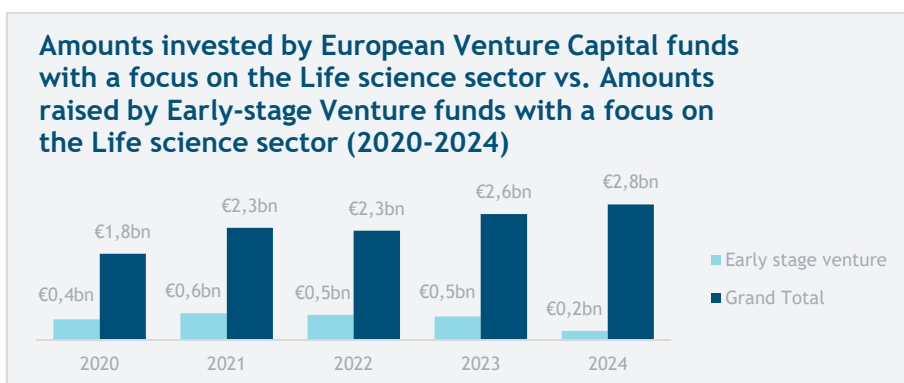
Biotech and healthcare innovation is built from the ground up, often spun out of European universities based on European taxpayers’ grant funding and beginning within small, research-intensive early-stage startups – but in Europe, they face a growing crisis of underfunding as they seek to develop and scale.

As the latest Invest Europe data shows, early-stage venture funds focused on biotech and life sciences continue to struggle to raise capital, especially when compared to later-stage funds. While early-stage fundraising plummeted by over 80% from 2021 to 2022 (following the COVID-19 pandemic’s surge in activity, driven by urgent global demand for diagnostics, vaccines, and treatments), later-stage fundraising proved more resilient, and in 2023 and 2024, later-stage funds raised more than double the capital of their early-stage counterparts – although this relative strength should not be mistaken for sufficiency: overall financing levels remain constrained across the ecosystem. Early-stage fundraising has recovered somewhat in 2024, but it remains well below pre-2022 levels. This persistent imbalance funnels more of the available capital toward mature companies, while starving the earliest stages of innovation, where future breakthroughs typically emerge and with it the pipeline of new emerging companies.



Source: Invest Europe

Additionally, in recent years, early-stage biotech and life sciences venture funds have been relying on dry powder¹ to maintain investment levels. While early-stage fundraising has started rebounding since 2022, it remains 46% below 2021 levels. At the same time, investment in early-stage startups has dropped sharply - down 66% from its 2021 peak. This divergence suggests that dry powder has been largely exhausted, and newly raised capital is either insufficient or not yet being deployed.



Source: Invest Europe

¹ Dry powder is defined as total amount of funds available to fund managers for future investments, including future management fees.

Consequently, without sufficient new financing, promising biotech and healthcare startups also cannot launch or sustain critical R&D programs – particularly in their most scientifically risky early phases. Although European-origin innovation remains globally essential – four of the top five best-selling therapies, including Ozempic, Humira, Comirnaty, and Keytruda, originate from European science, and European mRNA platforms helped bring COVID-19 vaccines to the world, Europe often fails to capitalize on these innovations, with commercialisation and scale typically occurring elsewhere, particularly in the U.S. Not only is the result a systemic bottleneck in Europe’s R&D spending, once comparable to the U.S., which continues to trail both the U.S. and China in relative and absolute growth, but also the significant tax revenues and fiscal benefits that arise when large pharmaceutical companies manufacture and sell globally from domestic headquarters. Despite Europe’s scientific productivity, the issue of early-stage and development stage funding and lagging R&D investment are now reinforcing each other, weakening our ability to convert breakthrough science into world-class innovation and company creation, impacting Europe’s strategic autonomy and competitiveness.

This internal vulnerability is now also being amplified by external pressure. The evolving U.S. tariff and industrial policy landscape – particularly under the second Trump administration – has introduced disruption and uncertainty. This new wave of protectionist trade measures and an explicit push toward domestic supply chain sovereignty is already influencing global pharmaceutical investment decisions, often to Europe’s detriment, such as the 15% general tariff imposed on many critical inputs, including active pharmaceutical ingredients (APIs), excipients, and manufacturing equipment, or the national security investigation that could result in tariffs of up to 25% (or higher) on finished pharmaceutical products and key components. In response, major European pharmaceutical companies – including Sanofi, Roche, Novartis, and AstraZeneca – have already announced more than \$100 billion in new U.S.-based investments to hedge against escalating trade risks.² If this realignment accelerates, Europe could face an outflow of strategic industrial activity, weakening its manufacturing base and reinforcing its reliance on external markets for commercialisation and scale-up. Europe’s early-stage biotech and healthcare venture ecosystem is disproportionately reliant on corporate capital (28% of amounts committed to venture funds with a focus on the sector in 2024 – as per Invest Europe’s data), and that capital is precisely what is most sensitive to geopolitical factors like tariffs, trade policy, and reshoring incentives.

At the same time, Invest Europe’s data shows that pension funds are beginning to emerge as a decisive new player in the sector. Unlike corporate investors, pension funds are structurally aligned with long-term, illiquid investments, as they have liabilities stretching decades into the future. However, their participation remains constrained by regulatory frameworks, which discourage unlisted and long-term assets. If Europe can unlock even a modest additional share of pension fund assets, the capital available for early-stage biotech and healthcare innovation could expand substantially, creating a far more resilient and dynamic funding ecosystem to drive European innovation, growth and competitiveness

Without structural shifts to rebalance funding flows, increase funding, drive faster capital deployment, and reduce regulatory cost burdens – such as those under the CRR and CRD that raise the cost of bank investments in PE/VC – Europe risks a prolonged drought in early-stage biotech and healthcare innovation, affecting the ability to nurture and scale high-potential startups. This leads to long-term

² Aboulenein, A., & Fick, M. (2025, July 22). *AstraZeneca unveils \$50 billion U.S. investment as pharma tariff threat looms*. Reuters. Retrieved from <https://www.reuters.com/sustainability/boards-policy-regulation/astrazeneca-unveils-50-billion-us-investment-pharma-tariff-threat-looms-2025-07-21/>

consequences that jeopardize the formation of the next generation of breakthrough biotech and healthcare companies, affecting our competitiveness and economic resilience.

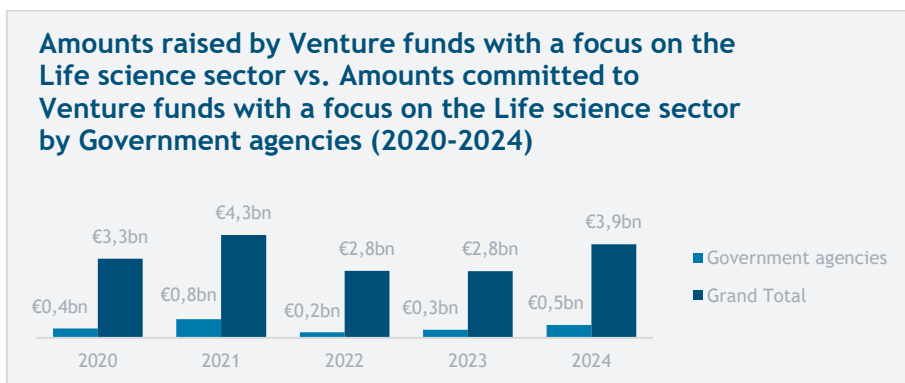
Safeguarding corporate capital and crowding in institutional investment must be a top priority. As highlighted in our [position paper on the Savings and Investments Union](#) from March 2025, long-term success depends on structural reforms to Europe’s financial ecosystem. **Regulatory frameworks, prudential rules, and limited access to patient capital – such as Solvency II capital charges on insurers (where the long-term equity category remains underused), the CRD/CRR framework treating bank equity stakes in funds as speculative, and Article 19 of the IORP Directive limiting pension funds’ capacity to invest in unlisted markets – deter institutional investors from allocating to long-duration, high-risk innovation vehicles like early-stage biotech and healthcare funds.** Without intervention, Europe risks losing its next generation of biotech champions before they even begin, due to the market failure at the earliest and most critical stages of innovation.

- **Ensuring public funding complements private capital**

While private capital remains a key driver of VC, public funding remains needed due to market failures and must thus support private capital, as it is most effective when used as a launchpad for a more integrated and competitive private capital market by de-risking innovation and crowding in private funding. The European Investment Bank (EIB) and the European Investment Fund (EIF) play a critical de-risking and signalling role that helps attract private capital, particularly in markets where PE/VC remain underdeveloped, and therefore, remain an essential component of the funding ecosystem, especially for SMEs and midcaps. EIF and EIB support has especially sustained the European VC ecosystem through cycles, ensuring that the capability of the industry is maintained for the long-term, including during short-term fluctuations that can occur in private capital flows.

We welcome the Commission’s renewed financial commitments – as per the Life Sciences Strategy – under Horizon Europe and its new flagship initiatives in clinical research, data integration, and biotechnology clusters. These are important steps toward strengthening the scientific foundation of Europe’s biotech and healthcare sector. To ensure these public investments translate into real-world innovation, they need to be designed to catalyse, rather than substitute, private capital, particularly in early-stage biotech and healthcare.

When private fundraising falters, as it did between 2021 and 2023, the innovation pipeline risks disruptions. During that period, total fundraising for biotech and life sciences venture funds fell sharply, reflecting a major pullback in private capital, and government agency commitments fell even more steeply. While overall fundraising has somewhat improved in 2024 – now just 9% below its 2021 peak – government agencies’ commitments remain 31% lower. This exposes a clear market failure: public funding has not scaled fast enough to offset volatility in private capital markets, and has fallen short of acting as a stabilising, counter-cyclical force.



Europe lacks the broader range of investors in VC compared to the U.S., such as pension funds, sovereign wealth funds, endowment funds or insurance companies. For instance, European pension funds only invest a tiny fraction into VC. Due to these structural gaps in funding sources, public funding provides substantial and vital backing for all PE funding (9% in 2024), but especially to VC (25%). Any gaps or reduction in EIB and EIF funding will directly impact the ability of European VC to make investments, attract further private capital and retain their specialist teams and expertise to maintain growth of the European ecosystem.

As we look to the next generation of biotech and healthcare companies, **bridging this public-private funding continuum will help ensure that the significant public investment in early-stage businesses** – channelled through instruments such as Horizon Europe, the European Innovation Council (EIC), in addition to the EIB and EIF – **translates into real-world innovation backed by VC, taking that research forward outside of the lab or other countries.**

To strengthen Europe’s innovation base, **public funding must become more agile, better targeted, and focused on addressing market failures. That begins with simplifying EU funding and governance processes, which remain overly complex – particularly for smaller fund managers and businesses – and aligning procedures with how private funds operate in practice.**

- **Promoting regulatory harmonization and enhancing efficiency**

Regulatory efficiency is not just a legal or administrative concern – it is a strategic lever for growth, investment, and global competitiveness. A simplified, predictable, and scalable regulatory environment would strengthen Europe’s position as a place to launch, grow, and invest in innovation-driven biotech and healthcare companies. Ultimately, Europe’s competitiveness depends not only on producing world-class science, but on creating a regulatory environment that enables that science to attract capital and reach the market.

Europe’s fragmented regulatory environment continues to constrain startup and scaleup growth, limiting the ability to retain innovative, high-growth companies. Inconsistent rules create friction for businesses, especially those operating across borders, raising costs and legal uncertainty – a complexity that is especially damaging for PE/VC-backed companies, which rely on efficient cross-border operations, legal clarity at exit, and scaling to succeed.

At the same time, regulatory harmonization must be followed with deeper financial integration. The absence of a truly unified Capital Markets Union (CMU) continues to fragment Europe’s investment landscape, making it harder for institutional investors to commit across borders and for fund managers to scale pan-European strategies.

Initiatives like the proposed 28th regime offer one potential pathway, but their success depends on delivering real legal simplification. Europe needs fewer overlapping layers of rules and more tools that lower friction for companies as they grow, and – if implemented with ambition – that help more startups and scaleups meet the thresholds of investability required by PE/VC fund managers, enhance cross-border capital flows, and increase deal efficiency across the ecosystem. **This should go hand-in-hand with advancements to the CMU:** only an integrated European capital market can provide the scale of patient, long-term capital that innovative biotech and healthcare companies require to thrive.

Just as important as legal simplification is reducing regulatory drag in the innovation process itself. PE/VC investments provide key funding, expertise, specialized know-how, and networks, needed for

these companies to translate scientific ideas into regulatory approval and viable products and services. For biotech and healthcare businesses, which represent a valuable exit opportunity for PE/VC investors across all sectors, time to market is critical, as these companies operate on longer timelines, face higher regulatory risk, and depend on seamless access to resources. However, in all PE, as per Invest Europe's data, the number of divestments (at cost, excluding write-offs) in the biotech and healthcare sector in Europe remains relatively lower compared to other sectors, reflecting both the risk profile and long exit timelines – a deterrent for investors seeking predictable returns.

Patent lives define commercial windows, and regulatory delays – whether in clinical trials, approvals, or reimbursement – can derail even the most promising innovations, in addition to affecting investor appetite. Even as Europe leads the world in scientific output, it continues to lag behind in the translation of that research into commercial innovation. Patent activity in biotechnology, medical technologies, and pharmaceuticals remains significantly behind the U.S., despite Europe's clear strength in scientific publications. This signals a broader structural failure: Europe is not fully capturing the value of its scientific base, and innovators face systemic barriers in moving from discovery to market. In a competitive global environment, companies may deprioritise Europe altogether in favour of faster-moving, more commercially attractive jurisdictions.

This dynamic is particularly visible in the medtech sector. The implementation of the Medical Devices Regulation (MDR) has significantly raised the burden of regulatory compliance, making CE marking more complex and as time-consuming as the FDA process. As a result, Europe has lost a historical competitive advantage in speed to market. The U.S. is increasingly seen as the most attractive market for biotech and health care product commercialisation – offering faster approval timelines, stronger funding environments, and more predictable regulatory pathways. This shift is pulling capital and companies away from Europe.

This environment has had an effect on new company creation, which is a key indicator of innovation vitality. In several of Europe's most established biotech hubs, the pace of startup formation has slowed, reflecting the difficulty of building and scaling companies under current conditions. Meanwhile, other regions are becoming more attractive, offering faster regulatory pathways, more predictable commercialisation processes, and stronger early-stage capital ecosystems.

Finally, from an innovation and investment perspective, clarity in regulatory mandates is as important as speed or harmonisation. Ensuring that Europe's regulatory decision-making remains clearly defined in scope and purpose is necessary to maintain confidence and predictability. The role of scientific regulators, such as the Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency (EMA), should be focused on assessing the safety, efficacy, and quality of products. However, there are growing concerns that economic or political considerations, such as judgments on pricing or cost-effectiveness, are increasingly influencing scientific evaluations.

Blurring these boundaries risks undermining regulatory predictability, delaying approvals, and discouraging investment in high-risk innovation areas such as biotechnology and advanced therapeutics.

Europe must also ensure that regulatory complexity does not stall innovation or signal commercial unattractiveness to global investors. In fact, we welcome the Commission's commitment to regulatory reform, including the proposed EU Biotech Act and its intention to simplify rules related to medical devices and diagnostics, which signal growing recognition that regulatory complexity is a competitiveness issue. **Mechanisms for earlier, structured engagement between businesses and regulators, particularly in high-impact fields like biotech and healthcare, will help maintain Europe's competitiveness. In parallel, depoliticising regulatory processes and ensuring that**

scientific bodies such as the CHMP within the EMA remain focused on safety, efficacy, and quality criteria, rather than economic or pricing considerations, would reinforce trust, transparency, and efficiency in the European approval system, an essential condition for retaining and attracting global biotech and healthcare investment.

- **Creating a European end-user market for biotech and healthcare**

Developing new medicines is among the most capital-intensive and uncertain forms of innovation. Compared to other industries, it takes more time, more money, and more risk to succeed. To sustain that level of investment, companies and their investors depend on markets that reward successful innovation and provide predictable routes to market.

In addition to offering a larger harmonised market, faster regulatory approvals and deeper capital markets – as discussed in the previous section – the U.S. also offers greater market predictability for innovative therapies and smarter incentives. Hence, even as Europe excels in scientific discovery, the companies that emerge from its laboratories often look to the U.S., for their first launches, larger financings, and commercial growth.

Europe’s decentralized systems create uncertainty for innovators and investors. This imbalance reflects a deeper challenge: Europe has yet to build a predictable, innovation-friendly internal market capable of rewarding success and reinvesting in future breakthroughs. For instance, in many Member States, reimbursement decisions routinely exceed the EU’s legal limit of 180 days, eroding the commercial window of patents and discouraging further development.

A weak end market means that Europe captures only a fraction of the value created by its own scientific ecosystem. The result is a paradox: Europe’s public health systems are designed to ensure equitable access, but their structural inefficiencies can delay patient access and discourage domestic innovation. High-impact discoveries born in European universities and research institutes often reach patients first – and generate growth – elsewhere.

Ensuring that pricing, reimbursement, and competition policies support and do not undermine strategic objectives for autonomy, health security, and industrial competitiveness should be a priority: a competitive end-user market for biotech and healthcare should be created. This means incentivising companies to keep their headquarters, jobs and innovative medicines in Europe.

Enforcement mechanisms or incentives to ensure that Member States respect the existing 180-day limit for pricing and reimbursement decisions should be introduced. When delays occur, automatic remedies, such as temporary reimbursement approval or limited patent-term extensions, should apply to protect innovators from erosion of commercial opportunity.

- **Harnessing data and emerging technologies**

The convergence of emerging technologies and access to information – including AI, quantum computing and access to data – is expected to drive significant innovation across the biotech and healthcare industry, particularly in key domains such as research and development (R&D), clinical development, manufacturing, and commercial strategy, influencing the way Europe discovers, develops, and delivers biotech and healthcare innovations. These technologies can reduce development timelines, lower costs, de-risk R&D, improve innovation and enhance investor confidence across the biotech and healthcare value chain. Yet, Europe remains at risk of falling behind global peers in deploying emerging technology-led innovation at scale.

Access to rich, interoperable data is an essential foundation. However, European biotech and healthcare innovators face fragmented and inconsistent access to such datasets. AI is already

demonstrating transformative value across the pipeline and is increasingly being adopted by EU firms. From protein folding to personalised medicine, it is helping researchers tackle problems that were previously intractable. At the same time, Europe’s healthcare systems are under growing structural strain – facing workforce shortages, rising costs, and ageing populations. In this context, AI must be treated not simply as a technological add-on, but as a core tool for system-level reform and resilience. Quantum computing further amplifies this potential. Though still emerging, its capacity and speed could reshape the industry, and early investment in quantum infrastructure and access mechanisms will help ensure European biotech and healthcare remain globally competitive in the next phase of technological disruption.

PE/VC are already accelerating the integration of advanced technologies into biotech and healthcare companies across Europe. But despite progress, biotech and healthcare companies in Europe continue to struggle with fragmented access to data, limited high-performance computing capacity, especially compared to U.S.-based tech ecosystems and investments into these technologies, and insufficient testing environments.

Unleashing the full potential of these tools requires robust policy support, one that bridges the current gap in data access and infrastructure. With the right frameworks in place, addressing data governance, high-performance computing access, and regulatory flexibility, datasets and emerging technologies could become strategic assets, through:

- **The acceleration of the rollout of secure, interoperable data spaces for biotech and healthcare**, such as the European Health Data Space (EHDS);
- **Investment in infrastructure and policy environments that enable safe, real-world testing and scaling of AI applications in biotech and healthcare**, through the establishment of biotech-specific regulatory sandboxes;
- **Support of early access to quantum capabilities focused on biotech and healthcare** use cases.

These technologies cannot operate in isolation. Their impact depends on the ability to connect datasets, deploy AI safely and at scale, and integrate quantum capabilities as they mature.

- **Strengthening the entrepreneurial workforce**

Europe’s competitiveness in the global biotech and healthcare stage hinges on its ability to harness innovation, attract and retain world-class talent, and scale research-based enterprises into global leaders. PE/VC – through both financial capital and operational expertise – play a key role in this effort, acting as enablers of long-term value creation and strategic autonomy.

As the EU advances its Life Sciences Strategy and Biotech Act, it is critical that policymakers recognize the central contribution of private capital to the growth, resilience, and employment capacity of Europe’s biotech and healthcare ecosystems.

The sector provides huge levels of employment in Europe with a significant share within the pharmaceutical and medtech industries, particularly involving individuals engaged in highly skilled scientific, clinical, and academic functions. Many of these jobs are concentrated in innovative SMEs and scaleups – precisely the segment of the market where PE/VC are most active. But the total employment impact is far greater in terms of indirect jobs created – such as in supply chains, services, and induced employment.

PE-backed companies employed 11.2 million people (across all sectors) at the end of 2023, including over 1.3 million in biotech and healthcare alone, as per Invest Europe’s data. This makes Biotech & Healthcare one of the top SME employment sectors for the industry, accounting for 10% of all jobs

created in the private capital-backed economy – positions that are typically high-skilled and held by a large proportion of graduates and postgraduates.

While the sector added 48,913 jobs in 2023, it also saw a slowdown in its employment growth rate (down 5.5 percentage points year-on-year) – a signal that investment conditions and strategic support must be strengthened to sustain momentum in innovation and scale-up potential.³

PE/VC are long-term partners to innovative companies across the biotech and healthcare value chain – from early-stage discovery to commercial scale-up. And although Europe still boasts a strong academic and entrepreneurial talent base, it is facing increasing competition from global peers – particularly the U.S. and China, as top-tier talent is being drawn to ecosystems that offer more attractive equity incentives and clearer pathways.

In addition to the measures proposed in the Life Sciences Strategy on support for career development of researchers, and the identification of competences, skills and training needs for the sector, entrepreneurship must be supported through policies that promote equity-based compensation, capital formation, and cross-border mobility, especially for strategically relevant sectors such as biotech and healthcare. **A fit-for-purpose equity ecosystem will help attract global talent and reward innovation, including: consistent tax treatment of stock options and other equity instruments across Member States, and simplified rules for ESOPs and capital gains taxation tailored to growth companies. Other mobility tools linked to high-skilled workers such as those in biotech and healthcare would also help. Complementary mobility measures to ease cross-border movement of highly skilled professionals, of which there is a great number in biotech and healthcare, would further strengthen competitiveness.**

Annex I: executive summary

Europe has the talent, science, and ambition to lead globally in biotech and healthcare, but to turn that potential into long-term competitiveness, we need the right investment, regulatory, and market and innovation frameworks to match – if Europe seeks autonomy and competitiveness, it must be willing to value innovation accordingly. That means:

- **Unlocking investment at every stage:** building a deeper and more integrated European capital market that channels both public and private funds into early-stage and scaling biotech and healthcare companies. Pension funds, insurers, banks and sovereign investors must be part of the solution, alongside continued catalytic roles for the EIB and EIF.
- **Smarter regulation for innovation:** simplifying and harmonising rules across Europe to cut time-to-market, reduce uncertainty, and make long-term innovation investment more attractive. A single, predictable European framework, coupled with clearer governance and coordination, can turn regulation into a driver of competitiveness and trust.
- **Creating a European end-user market for innovation:** aligning pricing, reimbursement, and spending frameworks with Europe’s industrial and strategic objectives. Europe should provide smarter incentives for high-impact therapies, enforce timely market access decisions, and ensure that the rewards for innovation are not captured elsewhere.
- **Empowering people and technology:** attracting and retaining top talent through modern equity and mobility frameworks, and fully harnessing the power of data, AI, and emerging technologies as strategic assets for Europe’s health and competitiveness.

³ Invest Europe. (2025, April). *Private Equity at Work 2025*. (p. 19, 21, 37, 38)

Europe's future in biotech and healthcare will be defined not by its scientific potential alone, but by its ability to turn that science into innovation, investment, and impact.

Annex II: case studies on the impact of PE/VC on biotech and healthcare

The following business cases illustrate how PE/VC have enabled biotech and healthcare companies across Europe to scale innovation, bring breakthrough treatments to market, and strengthen the continent's industrial and strategic position.

• BioNTech

Company profile	<p>BioNTech is a leader in personalised immunotherapies using mRNA technology to treat cancer and novel diseases. The Mainz, Germany-based company achieved global attention when it joined forces with Pfizer and Fosun to develop a vaccine against COVID-19 in 2020. Their Project Lightspeed initiative was the first to deliver an approved mRNA vaccine in the EU, the UK and the US, with distribution and inoculation starting before the end of the year. BioNTech has continued to adapt its product to new strains of the COVID virus and forecast the production of four billion doses in 2022.</p>	Company data	<table border="1"> <tr> <td>Established</td> <td>2008</td> </tr> <tr> <td>Country</td> <td>Germany</td> </tr> <tr> <td>Region</td> <td>Mainz</td> </tr> <tr> <td>Investor(s)</td> <td>AT Impf (Andreas and Thomas Strüngmann), MIG</td> </tr> </table>	Established	2008	Country	Germany	Region	Mainz	Investor(s)	AT Impf (Andreas and Thomas Strüngmann), MIG
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Venture capital's role	<p>BioNTech raised some of the largest venture capital funding rounds in European biotech history to pursue its range of candidates for infectious diseases, cancer and autoimmune conditions and invest in manufacturing capacity. In addition to mRNA technology, the company operates in three other drug classes: engineered cell therapies, antibodies and small cell immunomodulators. It is using the lessons from its COVID-19 programme to inform and accelerate its research.</p> <p>Funding history</p> <ul style="list-style-type: none"> • \$1.4bn in seed and VC funding rounds • Raised \$150m in IPO and \$500m in subsequent placements 	Key achievements	<ul style="list-style-type: none"> • First approved mRNA vaccine for COVID-19 in the EU, UK and US • One of the largest VC funding rounds in European Biotech history at \$325m in 2019 • Listed on Nasdaq in 2019 at \$3.4bn valuation, rising to market cap of \$34bn in 2022 	Key impacts	<ul style="list-style-type: none"> • More than doubled employee numbers from 1,310 in 2019 to 3,082 in 2022 						

• Argenx

Company profile	<p>Founded in Breda in the Netherlands, Argenx is developing treatments to combat rare and severe auto-immune conditions. Argenx's leading treatment Efgartigimod (VYVGART in the US) is helping patients with myasthenia gravis, a rare neuromuscular disease that can make speaking, eating and other simple physical actions more difficult for sufferers. The research programme has also resulted in the development of candidates that can stimulate the body's immune response to combat cancer, with Argenx partnering with US biotech AbbVie on development.</p>	Company data	<table border="1"> <tr> <td>Established</td> <td>2008</td> </tr> <tr> <td>Country</td> <td>Netherlands</td> </tr> <tr> <td>Region</td> <td>Breda</td> </tr> <tr> <td>Investor(s)</td> <td>EQT Life Sciences, BioGeneration Ventures, Erasmus MC Biomedical Fund, Forbion, Thuja Capital, KBC Private Equity, VIB, Omnes Capital, Seventure, Orbimed Advisors, The Institute for the Promotion of Innovation by Science and Technology in Flanders, ZAI Lab Limited, PMV</td> </tr> </table>	Established	2008	Country	Netherlands	Region	Breda	Investor(s)	EQT Life Sciences, BioGeneration Ventures, Erasmus MC Biomedical Fund, Forbion, Thuja Capital, KBC Private Equity, VIB, Omnes Capital, Seventure, Orbimed Advisors, The Institute for the Promotion of Innovation by Science and Technology in Flanders, ZAI Lab Limited, PMV
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Venture capital's role	<p>With venture capital support, the company pursued its aim of being first-in-class by collaborating closely with academic institutions, as well as strategic and industry partners, to identify novel targets, track disease pathways, and create therapeutic antibodies.</p> <p>Funding history</p> <ul style="list-style-type: none"> • Raised €42m from VC in pre-IPO funding rounds • Raised over \$3.6bn in 2014 IPO and subsequent placements 	Key achievements	<ul style="list-style-type: none"> • US approval for VYVGART, helping sufferers of neuromuscular condition myasthenia gravis • Raised \$115m in 2017 Nasdaq listing, 50% above initial target • Increased market cap from €132m at 2014 Euronext IPO to over €21bn in 2022 	Key impacts	<ul style="list-style-type: none"> • More than five-fold increase in workforce to 650 in four years to 2021 						

• **Crucell**

<p>Company profile</p> <p>Crucell (now Janssen Vaccines, part of Johnson & Johnson) is a pioneer in vaccine development, responsible for the first single-shot inoculation used in the fight against COVID-19. Founded in 1993 as IntroGene, a spin-out from Leiden University, it became Crucell through a 2000 merger with Dutch antibodies developer U-BiSYS. The company grew into one of the world's largest vaccine developers, focusing on infectious diseases such as influenza, malaria, and Ebola, strengthened by acquisitions including Berna Biotech (Switzerland) and SBL Vaccin (Sweden). Today, Janssen Vaccines continues to work on treatments for life-threatening viruses, including Hepatitis B and HIV.</p>	<p>Company data</p> <table border="1"> <tr><td>Established</td><td>1993</td></tr> <tr><td>Country</td><td>Netherlands</td></tr> <tr><td>Region</td><td>Leiden</td></tr> <tr><td>Investor(s)</td><td>Johnson & Johnson, Atlas Venture</td></tr> </table>	Established	1993	Country	Netherlands	Region	Leiden	Investor(s)	Johnson & Johnson, Atlas Venture
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Country	Netherlands								
Region	Leiden								
Investor(s)	Johnson & Johnson, Atlas Venture								
<p>Venture capital's role</p> <p>Crucell listed on the Euronext in Amsterdam in 2000 with VC backing. Early VC support enabled the company to expand rapidly and pursue strategic acquisitions, building its global leadership in vaccines. This momentum attracted Johnson & Johnson, which first invested €302 million in 2009 for an 18% stake, before acquiring the company outright for \$2.4 billion in 2010. The J&J partnership has since driven major innovations, including the discovery of an antibody predicted to neutralise nearly half of all flu viruses.</p> <p>Funding history</p> <ul style="list-style-type: none"> • Raised \$97m from VC • Received €302m in investment via stake sale to J&J in 2010 	<p>Key achievements</p> <ul style="list-style-type: none"> • Integrated acquisitions to become one of the world's largest vaccine specialists • Discovered antibody predicted to neutralise some 50% of all flu viruses • Acquired by J&J for \$2.4bn in 2011 	<p>Key impacts</p> <ul style="list-style-type: none"> • Increased employment from some 100 at IPO in 2000 to about 1,400 at exit to J&J in 2011 							

• **Exscientia**

<p>Company profile</p> <p>Exscientia blends advanced AI technology with complex drug discovery to precision-engineer medicines more quickly and efficiently, producing promising compounds that also have a higher likelihood of success. The Oxford-based start-up was the first company to automate drug design and enter an AI-designed molecule into clinical trials after a development phase of under a year. Following its pioneering potential treatment for obsessive compulsive disorder, Exscientia now has a wide-ranging pipeline that includes oncology, inflammatory and auto-immune conditions, psychiatry, and rare diseases.</p>	<p>Company data</p> <table border="1"> <tr><td>Established</td><td>2012</td></tr> <tr><td>Country</td><td>United Kingdom</td></tr> <tr><td>Region</td><td>Oxford</td></tr> <tr><td>Investor(s)</td><td>Alexion Pharmaceuticals, RA Capital Management, AstraZeneca, Flagship Pioneering, Wellington Management Company, Viking Global Investors</td></tr> </table>	Established	2012	Country	United Kingdom	Region	Oxford	Investor(s)	Alexion Pharmaceuticals, RA Capital Management, AstraZeneca, Flagship Pioneering, Wellington Management Company, Viking Global Investors
Established	2012								
Country	United Kingdom								
Region	Oxford								
Investor(s)	Alexion Pharmaceuticals, RA Capital Management, AstraZeneca, Flagship Pioneering, Wellington Management Company, Viking Global Investors								
<p>Venture capital's role</p> <p>Venture capital investment enabled Exscientia to expand its AI platform and accelerate its international expansion, notably into the US market. Later funding rounds helped it to move from developing candidates on behalf of partners to building its own extensive proprietary pipeline. The company floated on the Nasdaq in 2021 in an upsized IPO at a valuation of \$2.9 billion, marking one of the largest floats by a European biotech history.</p> <p>Funding history</p> <ul style="list-style-type: none"> • Raised \$833m in VC funding • Raised \$510m in upsized IPO and concurrent private placement 	<p>Key achievements</p> <ul style="list-style-type: none"> • First AI-designed molecule to enter clinical trials in under one year • Floated on Nasdaq at \$2.9bn valuation 	<p>Key impacts</p> <ul style="list-style-type: none"> • 287 employees at end-2021/3 							

• **Abliva AB**

<p>Company profile</p> <p>Primary mitochondrial disease (PMD) is a group of rare, debilitating disorders that severely affect patients' quality of life. Abliva AB, a Lund-based Swedish biotech, is developing treatments to address these unmet medical needs. Its lead candidate, KL1333, targets adults with PMD and is currently being evaluated in a global Phase II, potentially registrational clinical trial. Abliva's innovative approach aims to deliver the first effective therapies for this devastating disease area.</p>	<p>Company data</p> <table border="1"> <tr><td>Established</td><td>2000</td></tr> <tr><td>Country</td><td>Sweden</td></tr> <tr><td>Region</td><td>Skåne</td></tr> <tr><td>Investor(s)</td><td>Hadean Ventures, IP Group, Oslo Pensjonsforsikring AS</td></tr> </table>	Established	2000	Country	Sweden	Region	Skåne	Investor(s)	Hadean Ventures, IP Group, Oslo Pensjonsforsikring AS
Established	2000								
Country	Sweden								
Region	Skåne								
Investor(s)	Hadean Ventures, IP Group, Oslo Pensjonsforsikring AS								
<p>Venture capital's role</p> <p>Hadean Ventures backed Abliva since 2020, and supported the company strategically through the board of directors – driving the company through regulatory milestones, positive clinical readouts and evolving the management team. The current program delivered encouraging interim data in 2024, reinforcing Abliva's path toward meaningful therapies for patients. In December 2024, Pharming announced a recommended cash offer for Abliva with a record-breaking cash premium at +227% - well above the ~75% median premium seen in 2024 life-sciences M&A. The transaction completed in February 2025, marking a successful exit for Hadean and a strong outcome for European life-science venture. This case showcases how specialist European VCs can accelerate Nordic science to global impact – combining hands-on company scaling, syndicate leadership, and long-term committed capital.</p> <p>Funding history</p> <ul style="list-style-type: none"> • Total capital raised (since 2020) >SEK 450m in several directed share issues and rights issues 	<p>Key achievements</p> <ul style="list-style-type: none"> • Completed Phase 1a/b study of KL1333 in patients with efficacy signals • IND approval for Phase II, potentially pivotal FALCON study of KL1333 • Orphan drug designation for pipeline program NV354 • Major financing to support initiation of FALCON study • Fast track designation by FDA for KL1333 • Positive interim analysis of FALCON study 	<p>Key impacts</p> <ul style="list-style-type: none"> • Transition of CEO to Ellen Donnelly, an experienced US pharma executive • Build out of clinical team, delivering successful recruitment in a rare disease study 							

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