

Deals & Exits

## The imperative of growth capital for biotech and deep tech in Europe

*Without additional deep tech growth capital, Europe risks standing on the sidelines as other countries harvest its fruits of innovation, writes Krish Ramadurai of Harmonix Fund.*

Guest Author - 3 hours ago

The lack of growth-stage capital in Europe has been a subject of discussion and concern among entrepreneurs, policymakers and investors for several years.

Traditionally, Europe has been strong in seed- and early-stage investments, with a robust start-up ecosystem in cities like London, Berlin, Stockholm and Paris. However, European companies have found it challenging to raise capital domestically and often look to US markets when it comes to later-stage funding rounds.



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Historically, European investors have been viewed as more conservative than their US counterparts, translating to a preference for safer investments and a lower propensity to invest large sums in unproven start-ups that are often pre-revenue.

However, Europe is increasingly a hotbed of innovation and entrepreneurship, with the number of European start-up companies more than tripling between 2015 and 2020, according to a **report** by DeepTech Equity NL. Over a similar period, the gap between US and European investment in deep-tech start-ups — companies developing breakthrough engineering and scientific advances with the potential to lead to the creation of entirely new industries or to radically transform existing ones — decreased by half, yet remains significant, the DeepTech report states. For example, artificial intelligence (AI) and machine learning (ML) start-ups in Europe received €10 billion in venture capital (VC) in 2022 compared with €38 billion for such US-based companies, per a

PitchBook [report](#). This is not especially surprising given that the VC market is larger in the US than in Europe.

This continued imbalance between VC funding of deep tech start-ups is driven as much by differences in risk appetite as by the amount of capital available. In Europe, fewer investors are willing to invest in start-ups that don't have revenue or validated business models. Furthermore, the US has deeper capital markets with a large number of growth stage, private equity investors, and a broad base of institutional investors. However, Europe has been playing catch-up in this regard. Expanding the availability and amount of growth capital available to European deep tech companies is critical for realizing the transformative potential of biotech and deep tech in creating the next generation of human infrastructure.

Improving and protecting human health and the health of our planet are two of today's greatest challenges, and both areas can be significantly advanced through deep tech innovation. A new era of AI and ML-enabled biotechnology companies is eliminating bottlenecks that increase the time, cost and failure rate of developing new therapies and treatments.

These companies are using computational platforms to find, design and develop novel drugs from scratch that are more efficacious and have higher translatability for disease treatment. For example, Bit.bio (backed by Arch Ventures and others) developed a breakthrough cell programming platform that can consistently and efficiently reprogram stem cells into any cell type at scale, ushering in a new era of cell therapy treatments. Furthermore, Insilico Medicine (backed by HongShan, formerly Sequoia Capital China, among others) developed the first suite of generative AI-developed therapies in human clinical trials at a fraction of the time and cost it traditionally takes.

We define deep technology as an element of critical infrastructure in which these technologies are fundamental to the betterment of humanity, including human health, safety and security. Creating next-generation infrastructure across space technologies, wireless telecommunications, semiconductor manufacturing, satellite communications and other vital areas is essential to accelerating economic prosperity and growth. Companies such as Loft Orbital (with backing from BlackRock and others) are democratizing access to space by making space launch services more accessible to customers across Europe and worldwide and substantially reducing the time and cost for space launches.

Ensuring that biotech and deep tech innovators and entrepreneurs in Europe receive sufficient funding to advance potentially transformative technologies that our world needs requires a change in risk perception and financial commitment from the European VC community. Beyond the societal benefits gained from investing in these technologies, European VCs can stimulate substantial economic growth, job creation and global competitiveness for Europe.

The societal, economic and investment benefits of deep technology investing may explain why the deep tech vertical is ranked as the second-most promising VC opportunity by European limited partners.

Failure to invest in European deep tech and biotech start-ups also has global commerce and security risks. Europe lags both the US and China in deep tech investment, according to an [analysis](#) by Dealroom, and stands to lose out in the global marketplace if countries outside the EU take leading positions in commercializing deep tech-based products and services.

Moreover, controlling a robust set of deep tech assets is essential for sovereignty and security of European countries and the EU as global powerhouse. With nearly 50 percent of late-stage funding for European deep tech companies coming from the United States and Asia (per Dealroom's report), there is a real risk that other countries will reap the commercial and security benefits of deep tech innovations taking place within Europe.

Increasing European investment in its own nascent deep tech ecosystem will require several key changes to the status quo. This includes a change in European VC perspectives regarding risk and reward and a greater emphasis on the potential value of long-term gains over short-term uncertainties. The potential for substantial ROI should help facilitate this much needed change in mindset. Improving the funding ecosystem for deep tech also requires collaboration between governments, private investors and academic institutions to foster a conducive environment for biotech and deep tech growth, and to harness the tremendous deep tech potential that resides in European universities.

Just as deep tech and biotech have the power to address diverse challenges facing society, unleashing that power requires support from diverse areas of society. European policymakers, investors and industry leaders must prioritize and champion growth capital for these critical sectors in Europe. Providing seed capital is necessary

but not sufficient. Without additional deep tech growth capital, Europe risks standing on the sidelines as other countries harvest the fruits of innovation taking place within its borders.

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