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Europe's definitive tech report

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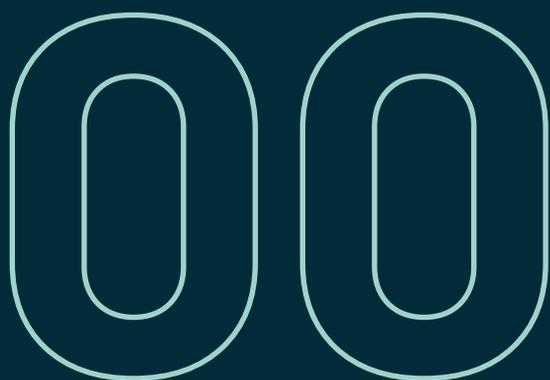
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 SLUSH

STATE OF EUROPEAN TECH 23

The definitive take on European tech

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A word from...

A word from Atomico



A word from the report co-authors

After 2022 proved to be one of the most challenging years our ecosystem has ever faced, 2023 was never going to be plain sailing. There's no getting away from difficult macroeconomic conditions that Europe has faced this year, with Europe set to reach little over half of 2022's levels at \$45 billion by the end of the year - a trend being felt across the globe. What's more, we've seen a slowdown in rounds of over \$100M, with only 36 of these so-called 'megarounds', down from 163 in 2022 and almost 200 in 2021. This has also meant only 7 new \$1B+ companies have been minted in 2023. And while dry powder is at a record high, the fundraising environment for VCs has resulted in a compression of fund cycles. The venture asset class is certainly being put to the test.

And yet, this year European tech has proven its resilience and shown signs of stabilisation. Despite this tough macro environment, the ecosystem has bounced back to a value of \$3 trillion, recovering the \$400 billion that was wiped out last year; the layoffs that plagued 2022 have peaked and levelled off, with the worst of them seemingly behind us; Europe's overall funding levels, while experiencing the same pullback being felt across the globe, is still the third highest on record at \$45B, indicating that the ecosystem remains resilient, and is correcting itself following the highs of 2021 and early 2022.

Looking at the exit environment, the public markets have started to wake from their slumber after an incredibly quiet first half of the year with signs of activity in H2. Arm's \$50 billion IPO made the headlines earlier this year, paving the way for others to float and prising open the IPO window, ready for next year. M&A activity also picked up this year, adding \$36 billion of value, but this is far from the levels recorded in 2020 and 2021.

In terms of startup formation, Europe is now creating more new startups than the US, and while startup formation has slowed this year, this is largely due to the weeding out of first-time founders, with the share of repeat founders remaining stable. That means a class of dedicated founders who are ready to face a higher bar to raise money, attract talent and win customers. This is now critical, given the easier access to capital in the US, despite both regions having the same likelihood to scale to a \$1B+ outcome.

We've also found that talent in Europe's ecosystem is proving to be one of Europe's key strengths. Despite challenges in the capital markets and a subsequent risk of layoffs, European tech is not losing its strong appeal to talent; there has not been any type of mass exodus of talent out of the industry, but rather, we have seen net growth. In the last five years, European tech has expanded its workforce from slightly over one million employees to more than 2.3 million today. Even more encouraging is the fact that Europe is gaining from talent flowing into the ecosystem from the US, rather than losing out to them. We're also seeing the proliferation of early-stage startups driving job creation; early-stage companies typically account for almost double the number of new joiners to the tech industry in each period, compared to growth-stage companies.

This talent advantage is also bearing out in AI. Naturally, advancements in AI have dominated the media landscape, with fears that Europe is in danger of falling behind the US. The data, however, tells a different story. Not only does Europe have more AI talent than the United States, with 108,000 AI operators in Europe vs. 87,000 in the US, but also we've seen AI become the number one theme at Seed stage, including Mistral AI securing the largest seed round in European history. AI-focused companies made up 22% of all European megarounds this year, even surpassing the levels in 2022, indicating that investors' appetite to fund the sector remains strong despite the macro turbulence. This achievement is especially impressive when compared with the trend in the US, where the availability of growth-stage capital has a substantial impact on the number of \$100M+ rounds raised.

Of course, AI is not the only sector where Europe has continued to perform, as the region continues to show dedication to solving humanity's toughest challenges. The Carbon & Energy sector, which encompasses 'climate tech', accounts for 30% of all capital invested in European tech in 2023, tripling its share of total investment since 2021. This made it the single largest sector by capital raised, overtaking both fintech and software. It's encouraging to see capital flowing to companies solving the world's most crucial challenges, despite difficult market conditions.

So, we've got the technical bedrock. We're drawing new talent into our ecosystem. We're starting more companies than any other region. We're building our strongest ever teams. And we're seeing the brightest talent being directed to the hardest and most pressing problems. We have all the ingredients to become the next tech superpower.



We are at a crucial moment in the innovation cycle, standing before the greatest funding imperative we've seen in generations. European investors, both private and institutional, now need to plug this gap in funding if Europe is to reach its full potential.

Tom Wehmeier
Head of Intelligence & Partner, Atomico

About Atomico

Atomico invests in ambitious tech founders at Series A and beyond with a particular focus on Europe, leveraging deep operational experience to supercharge their growth. Founded in 2006, Atomico has partnered with over 100 ambitious teams - including those at Klarna, Supercell, Graphcore, Compass, MessageBird, Masterclass, Attentive Mobile, Pipedrive and Hinge Health. Atomico's team of founders, investors and operational leaders have been responsible for global expansion, hiring and marketing at companies from Skype and Google to Twitter and Uber.

atomico^o

A word from Orrick



While 2023 tech investment in Europe is far off from the extraordinary highs of 2021 and around 38% down from last year, it was still a very solid performance with many signs of strength and green shoots in the ecosystem.

We see clear indications that tech and innovation remain the engines for economic growth in Europe and across the globe.

We see clear indications that tech and innovation remain the engines for economic growth in Europe and across the globe.

There is a lot of dry powder.

The pool of investors, including investors exclusively focused on Europe, has never been deeper. The number of unique investors in European tech has risen consistently over the past decade. VCs have raised more than \$50B in new funds locally since 2021.

The market has heeded the call to action on climate, the fastest growing segment.

Carbon and Energy solutions account for approximately 30% of all capital invested in European tech in 2023, tripling the proportion of investment since 2021. Energy storage, clean energy and energy efficiency top that trend.

AI and automation attracted the most capital and has a robust growth stage pipeline.

AI investment has soared globally, including in Europe. AI & Machine Learning companies accounted for 11% of the total investment in 2023. What's more, Europe already has a growing and maturing ecosystem of late-stage companies with AI at their core. Eleven mega-rounds of \$100M+ were raised by AI companies in Europe in 2023 alone.

As one measure of the ecosystem's maturity, there is an abundance of companies across the lifecycle.

Since 2014, Europe has minted more than 350 new unicorns. The continent's tech ecosystem is well-stocked with more than 3,900 growth-stage tech companies that have the potential to become the next generation of household names and success stories. Europe also has 41,000 early-stage startups – and in the next five years alone, at least 25,000 more tech startups are expected to be formed.

Mind the gap in funding and you'll find incredible opportunity in Europe.

Funded European companies are as likely as their American counterparts to scale to a billion-dollar valuation after five years in operation. Yet U.S. startups are 40% more likely to have secured venture capital funding in the same timeframe. That said, Europe's share of global VC reached 17% in 2023 – showing the market is awakening to this opportunity and closing the gap.



The European tech community continues to disrupt, innovate and scale.

Chris Grew

Partner, Technology Companies Group, Orrick

Serial entrepreneurs and next generation founders are collaborating and leveraging technology to solve some of the most pressing issues we face. Thank you as always to Atomico for affording us the opportunity to be part of the most important conversation on the State of European Tech.

About Orrick

Orrick ranks No. 1 in Europe for venture capital (Pitchbook) and has been the leader for each of the past seven years. We counsel venture-backed companies, as well as the most active funds, corporate venture investors and public tech companies worldwide.

Our advice is informed by working with more than 4,000 high-growth tech companies globally (including hundreds of companies in emerging sectors, such as AI, Life Sciences & Healthtech, Energy Tech and Fintech), 13 of the 25 largest public tech companies, and more than 400 investors.

Our annual Deal Flow Report analyses the hundreds of transactions we help companies and investors close in Europe and shares insights gleaned from term sheets, industry trends, deal volume and more. Our 2022 report leveraged data from the 500+ transactions we closed for clients in Europe with an aggregate value of more than \$12 billion and our 2023 report will launch in Q1.

We recently launched Orrick Tech Studio, a self-service resource to help companies grow and thrive at all stages. With 50+ customizable forms & document generators, 300+ articles, videos and podcasts and robust FAQ and glossary databases, it's our version of open source for the ecosystem. Learn more at OrrickTechStudio.com.



A word from HSBC Innovation Banking



The European innovation economy has had a reset which we believe will be a positive for the long-term.

The macro environment has driven uncertainty and investor caution, and led to a shift in how we do business across the innovation and venture landscape. We are now in a period of thoughtful company-building with investors and management teams identifying sustainable growth opportunities with the capacity to generate profit and have meaningful global impact.

Despite the slowdown, we should be optimistic about the European tech ecosystem in 2024. There are nearly 3,900 growth-stage tech companies with the potential to become the next generation of global category leaders, and that number is set to double in the next five years. As the report will show, the key to delivering on this potential and ensuring Europe becomes the next tech superpower is improving access to capital, broadening our expertise in key sub-sectors and continuing to foster innovation hubs

Going into 2024 we have some tailwinds in that the bench of active European investors is diversifying and expanding, and they remain committed to investing through market cycles. Driving 79% of the total capital invested in European startups at the early stage, our domestic investors have proven to be the bedrock of the startup ecosystem: early-stage investment has shown significant stability in the past five quarters, which should encourage entrepreneurs starting out now.

Founders in Europe have led in building purpose-driven tech, which has attracted an increase in funding at the growth stage that are setting out to solve some of our hardest problems. There is strong momentum in areas such as sustainability and climate, with ground-breaking developments in foundational technologies such as Generative AI with potential applications across almost every industry sub vertical. The Carbon & Energy sector which encompasses 'climate tech', accounts for 27% of all capital invested in European tech in 2023, tripling its share of investment since 2021.

However, startups in sectors such as AI, climate, healthcare, education and infrastructure typically take a lot of money to scale. As a result, investors will need to revise their playbook to back these capital-intensive long-term businesses.

Investing in capital-intensive industries requires a comprehensive approach and patience that goes beyond financial analysis; you need deep sector expertise and a nuanced understanding of these specific industries. While this may sound challenging, to create disruptive companies with the potential to change the world, we need institutions that can find creative, empathetic and long term solutions to finance them. The economic challenges the venture landscape has weathered means entrepreneurs face a higher bar fundraising, securing talent and customers. Startups in Europe are 40% less likely than their US counterparts to secure VC funding after five years, even if year-on-year the volume of new startups in Europe outpaces the US. European founders are resilient, but they need help unlocking access to varied and scalable long-term capital, and this is where utilising a breadth of financing sources to build out the capital stack matters.

Through our years of supporting and financing innovation business across every subsector, our expertise in helping companies scale and appetite to deploy capital means we are right there alongside the investors when looking to help founders and companies across all life stages reach their next milestone, extend runway, or gear up for an exit.



Seizing these opportunities in 2024 is unpinned by investor capacity, upskilling and attracting world class talent, and maintaining a long-term view around risk and value creation.

Simon Bumfrey
Head of Relationship Banking, HSBC Innovation Banking UK

If we want Europe to become the next tech superpower, investment is key and at HSBC Innovation Banking we look forward to playing our part in fuelling this critical sector.

About HSBC Innovation Banking

HSBC Innovation Banking provides commercial banking services, expertise and insights to the technology, life science and healthcare, private equity and venture capital industries. HSBC Innovation Banking UK is a subsidiary of HSBC Group, benefiting from its stability, strong credit rating and international reach to help fuel its growth.



A word from Affinity



After a tough year for many in private capital, sentiment is trending back up. But as the State of European Tech 2023 shows, the path forward is not without obstacles.

A time of cautious optimism

Investors almost unanimously predict that deal volume will rise in 2024 compared to 2023. According to our research, 89% of global VCs foresee doing the same or more deals in 2024. The optimism is equally strong in Europe, at 87%—a stark change from last year when only two-thirds of European investors forecasted a better dealmaking environment in 2023 compared to 2022.

Still, market conditions remain uncertain. Exits are down, one-year VC returns are in negative territory in both the US and Europe, and US investors are withdrawing in record numbers from the European market.

But private capital investors are resilient. A VC deal now averages 10 more hours of research compared to last year. Investors are continuing to reset their portfolios with stronger investments that meet a vastly stricter set of investing criteria—transitioning away from hype and growth-at-all-costs to proven business fundamentals, durable long-term growth, and profitability.

Returning to offense

Total VC fund count globally is up 33% over the past decade. Venture capital has never been more competitive than it is now, amplified by all of those investors chasing a much more select group of startups.

While international VC firms may be withdrawing from the region, Europe benefits from a strong and significant base of local investors. They're taking advantage of this situation by finding and closing the highest quality deals with a pivot from a defensive to an offensive approach.

Venture capital is intrinsically relationship-driven: the best deals are often sourced and closed through an investor's network. Top European VCs ranked by volume of unicorn investments are growing their networks faster than their peers by 11%—they know this is a move that drives increased and high-quality deal flow.

A year of innovation

Internally within firms, VC is on the cusp of reinventing itself thanks to an explosion of investment in data and AI. More than 60% of European investors plan to increase their productivity by automating internally manual and repetitive tasks. Almost 45% plan to leverage AI to accelerate their market research and due diligence.

Investors are looking forward to reallocating that time they save to the activities AI will never do—building strategic relationships, and playing a more active role in portfolio company support and success.

Externally, AI is ushering in a wealth of innovative products and services. Speaking recently, Kelly Graziadei, Founder & General Partner of F7 Ventures summarized the opportunity: "There are a couple of moments we can look back on where we saw the advent of big platforms and the billion dollar companies that spun out from them. We're going to see the same thing happening with AI."

Whether it is operational innovation to drive efficiency, or product-led innovation creating exciting new investment opportunities, there's plenty to look forward to in 2024.



Whether it is operational innovation to drive efficiency, or product-led innovation creating exciting new investment opportunities, there's plenty to look forward to in 2024.

Ray Zhou
Co-Founder & Co-CEO, Affinity



A word from Slush



In the startup community, we find ourselves facing a challenging chapter.

Amidst layoffs and down rounds, it is safe to say that there have been sunnier days for founders and VC investors alike. The European and global startup ecosystem has entered into a new reality, marking an end to easy access to capital, customers and talent — a reality where new rules apply.

This new reality is evident in multiple ways, as this report shows. Valuation multiples for software companies have dropped by a third, and the European tech sector witnessed over 10,000 layoffs just in the first quarter of 2023. Additionally, the total capital invested in European startups has declined by half in comparison to the record-breaking year of 2021.

Nevertheless, despite the evident challenges, we believe that this also marks the beginning of a promising new era for the European tech ecosystem. While this chapter certainly presents its difficulties, it also comes with many positive aspects for entrepreneurship in Europe, serving as a reminder to focus on what matters.

First and foremost, there are multiple reasons for remaining optimistic about the current opportunities for founders. As outlined in this report, the funding landscape in Europe remains on an upward trajectory from a long-term perspective, and the European startup ecosystem continues to attract investors from all parts of the world. Hence, it appears that the downturn is a temporary market correction rather than a lasting threat to the European startup ecosystem.

Secondly, the adjusted market reality has raised the bar for aspiring founders: Only companies genuinely dedicated to solving the world's most pressing problems will thrive. The emphasis has shifted from explosive growth and quick returns to building enduring companies. Founders must prepare themselves for the long haul, driven by a sense of purpose and mission, which in the long run, could bring positive outcomes for the European ecosystem.

Lastly and perhaps most importantly, the European ecosystem has taken the lead in building purpose-driven companies, with sectors like carbon and energy accounting for a third of all invested capital. Furthermore, Europe has put itself at the forefront of AI ethics and regulation amid the breakthrough of large language models (LLMs). In a world where technological innovation is driven by competition, it is essential to establish regulatory frameworks that promote ethics and safety. Europe has already taken the lead in tackling societal challenges in the field of AI and technology, potentially setting the standard for decades to come.



As Slush has consistently emphasized throughout the past couple of years, we have every reason to believe that we are experiencing a pivotal moment in the history of technology and innovation.

Linda Björkenheim
Slush

In fields spanning energy, biotech, space, computing, and AI, we are suddenly able to build things we could only dream of for most of human history. This unprecedented potential for world-changing entrepreneurship is reflected in our theme for Slush 2023: A story of entrepreneurial grit and building to last. We are witnessing a rising ecosystem with Slush 2023 attracting a record-breaking number of founders, which speaks for an exciting future in the European startup ecosystem and beyond.



01



Executive Summary

Embrace risk to shape the future

Our executive summary brings together the most important data points of the year. Here, we dive into key indicators of the ecosystem's health, highlight bright spots, and put forward our thesis for the year - that to shape the future, the entire ecosystem needs to start embracing risk.

Investment levels have dropped globally

The market reset is not a solely European concern. The projected volume of total investment in 2023 is expected to equal less than half of the investment seen in the peak year of 2021 across every global region.

Europe is staying positive

Despite two years of challenging conditions, the SoET community still feels positive about the future of European tech. 45% of our survey respondents feel more optimistic about the future of European tech than they did 12 months ago.

Ecosystem value bounces back to \$3 trillion

After \$400B in value was wiped from the ecosystem during last year's downturn, public markets have rallied to bring Europe's value back up to its historic high.

Stability after the storm

Nine years on, the State of European Tech report continues to measure and analyse the state of the industry. Our aim has remained the same: to bring you an accurate picture of what's happening in European tech - going beyond the headlines, digging into the data, and reflecting the true state of European tech.

In June, we launched our first-ever mid-year update, which highlighted the new market reality after downturn hit in the summer of 2022. Amidst rising inflation and interest rates, and growing uncertainty, the environment has been even more challenging this year. But the foundations of the ecosystem remain strong. Now, we're diving into the fundamentals that will turn this reset into an opportunity for European tech, and provide a data-driven exploration of the path forward.

1

Venture model passes the test

The European ecosystem is in a much stronger position compared to prior downturns and has proven its resilience.

2

Recovery under way, but Europe's potential remains untapped

More and more indicators point to the green shoots of recovery and validate our long-term optimism. But this remains a critical moment for Europe to come back stronger.

3

The ecosystem must embrace innovation

Europe has entrepreneurship aplenty. But the whole ecosystem must embrace risk to make sure that innovators can succeed.

Exit landscape stirs after extended quiet period

Counter-intuitively, let's start this year's report by looking at IPO & M&A activity, even though these liquidity events are typically associated with the latter stages of the startup and investment lifecycle.

Liquidity events - or exits - are critical to the effective functioning of the European tech flywheel - the virtuous cycle that powers the ecosystem. These serve not only as a means to unlock the realisation and redistribution of capital gains, but also as catalysts for the systematic recycling of talent and expertise into a new generation of companies.

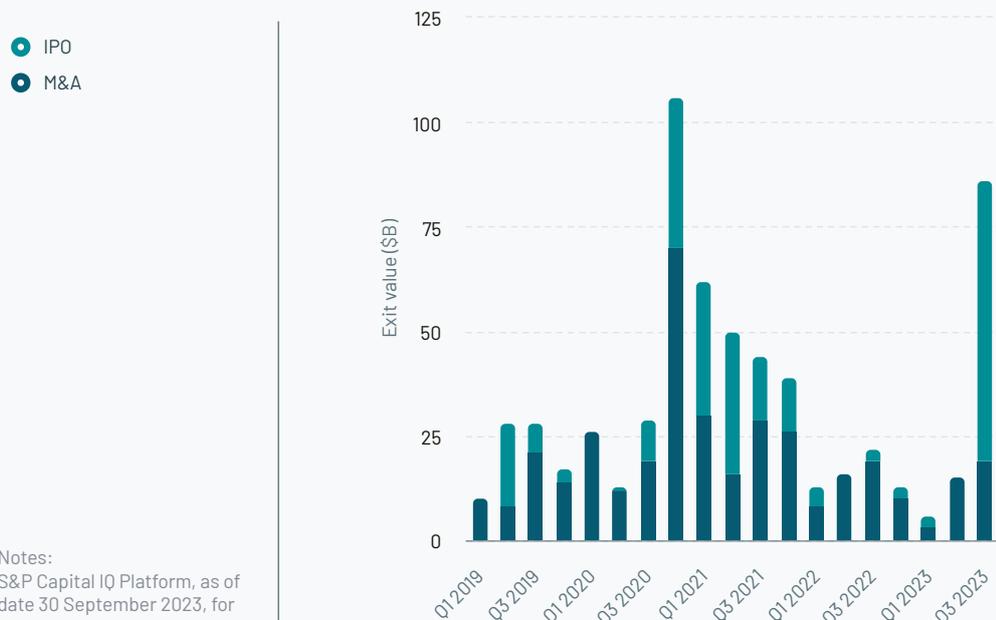
Following the peak of the market in Q4 2021, six consecutive quarters of subdued exit activity followed. The IPO landscape, in particular, was notably quiet - though not entirely dormant.

Before ARM's gigantic \$55B IPO this year to test a 're-opening' of the IPO window, Europe had already witnessed two other billion-dollar tech public offerings this year, including the \$2.6B listing of German cloud infrastructure provider IONOS Group and the ill-fated \$1B IPO of UK fintech CAB Payments, all of these listings taking place in the third quarter of 2023.

In contrast, the M&A market has displayed higher levels of activity, although the volume and value of deals are still far from the peaks of 2020 and 2021.

As we'll explore throughout the report, the big shifts in the exit landscape, both in the pathway to liquidity and in the form of a reset of the valuation environment, have led to knock-on consequences for founders, talent, VCs, LPs and beyond.

European tech M&A exit value and tech IPO market cap at close of first trading day (\$B) by announcement quarter, 2019 to 2023



Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only. 2023 figures extrapolated linearly based on year to date figures. Includes announced and completed M&A transactions only (excluding since terminated/withdrawn).

Sources: **S&P Global**
Market Intelligence

It's a global phenomenon

Of course, the market reset isn't solely a European concern: it's a worldwide phenomenon. There has been a notably consistent reduction in global private tech investment not only in Europe, but also in the US, China, and beyond.

However zooming out a few years, Europe has continued on an upward trajectory and is on track to raise 18% more compared to 2020. We are the only region globally where long term growth has not flattened out. Meanwhile US, China and Rest of World are on track to land flat or below 2020 figures.

Unsurprisingly, this global retraction in total investment volumes is also having a knock-on effect on the flow of capital between regions.

Capital invested and change in capital invested (%) by region, 2020 versus 2023



Notes:
Data is as of 30th September 2023. Full year extrapolated based on year to date data. Excludes the following: biotech, secondary transactions, debt, lending capital and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

Short-term returns are weighing down long-term track record

Not surprisingly, the highly visible impact of the market reset is mirrored in the short-term performance of venture capital. One-year VC returns are now well into negative territory in both Europe and the US, as a consequence of increased down rounds, write-offs, and markdowns reflecting in the data.

This undoubtedly makes for painful, if not unexpected reading for investors. In VC, however, what matters is the long-term perspective, given that returns take 10 years or more to be realised. In this regard, European VCs have consistently delivered outperformance over two decades, at least matching or, in most cases, beating benchmarks from US VCs, European buyout, and public equities.

Horizon pooled return (net) by fund index, June 2023

- 2023 MSCI Europe Index
- 2023 Europe Developed Private Equity Index
- 2023 US Venture Capital Index
- 2023 Europe Developed Venture Capital Index



Notes:
Data is as of 30 June 2023. MSCI Europe Index is derived from the CA Modified Public Market Equivalent (mPME), which replicates private investment performance under public market conditions.

Sources:

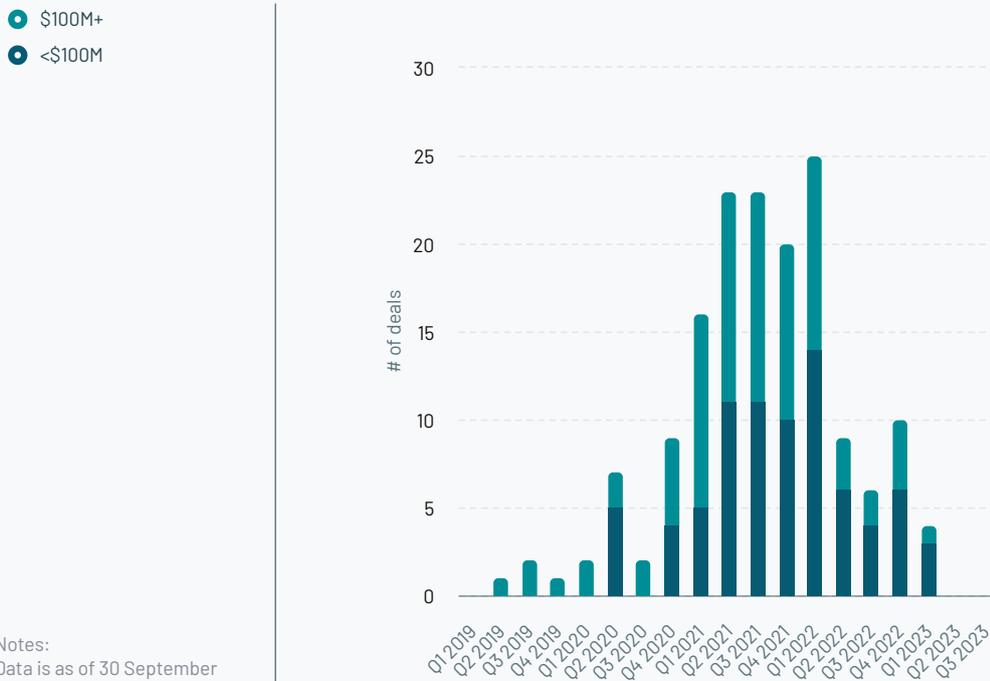


Crossover investor activity grinds to a halt

As highlighted in the 'First Look' midyear update to the State of European Tech, a consequence of a very different exit landscape has been a huge decrease in, and in some cases a complete withdrawal from, activity by so-called 'crossover investors.' The retreat of these funds that actively invest across both the public and private markets has been a major factor in the slowdown of late-stage and large-round investment activity.

In 2022, the volume of new investment activity had already started to slow dramatically, especially during the second half of the year. This year, investment activity has effectively ground to a halt with just four new investments announced publicly during the year to date. Interestingly, this slowdown is visible across both large rounds of more than \$100M, as well as smaller rounds.

Number of new investments by selected crossover investors by quarter, 2019 to 2023



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Crossover investor activity is based on a representative cohort of more than 10 of the most active funds investing across both the public and private markets.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

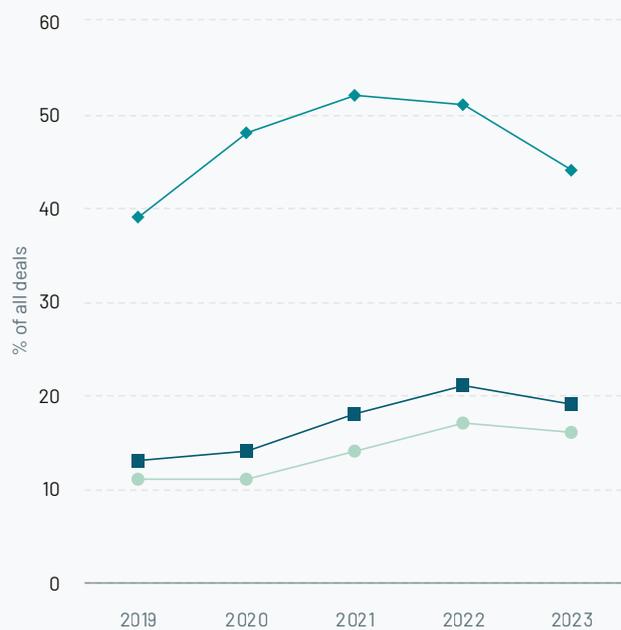
US investor participation down

In Europe, shifting global capital flows have led to less investment from US investors in both early and late-stage funding rounds.

Despite the drop in investment stages, US investor participation in European funding rounds is still higher than historical norms. Many long-term US investors continue to be actively involved in the region.

Share of rounds with participation from US-based investor (%) by stage, 2019 to 2023

- Early stage
- Growth Stage
- Overall



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech,
secondary transactions, debt,
lending capital, and grants.

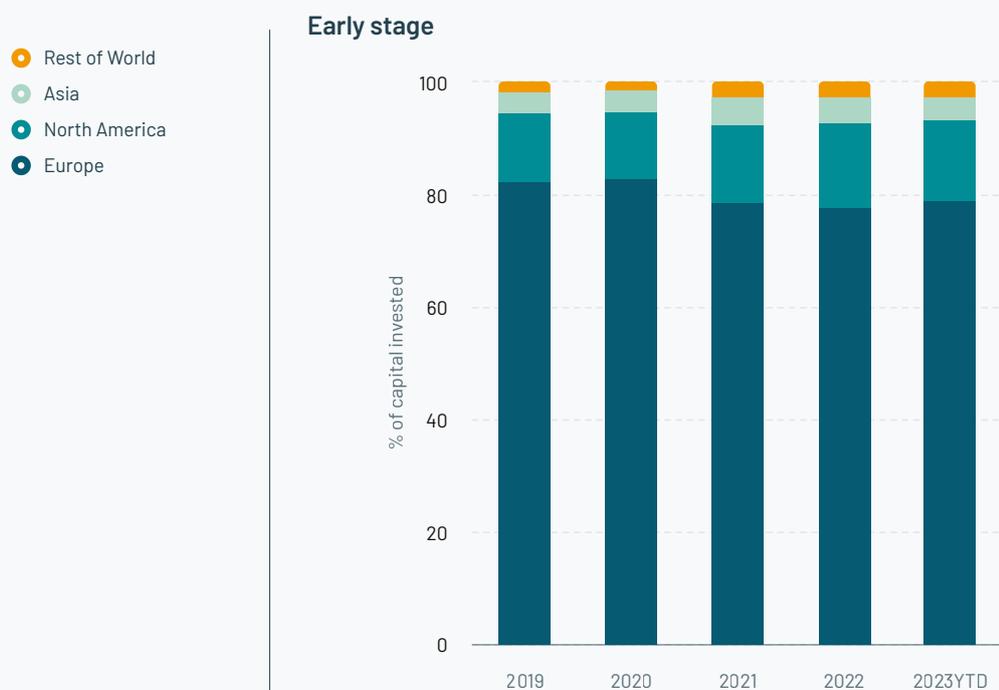
Sources: **atomico** Powered by **dealroom.co** **crunchbase**

Local capital increased in importance

As a consequence of reduced US investor activity, the role of European investors has taken on even greater prominence in the past year, underscoring the significance of building a consistent and dedicated source of European capital across all stages, and especially at later stages. At the Growth stages, for example, the share of total capital invested by US investors has fallen from a peak of 39% in 2021 to just 25% in 2023. The declining share is also evident among Asian investors, whose share of total capital invested has declined from 11% in 2021 to 7% in 2023.

This shifting mix of geographic sources are less of an issue at the earlier stage, since European startups primarily attract initial rounds from domestic or pan-regional investors within the European ecosystem. In fact, investors in Europe, including both domestic and cross-border players, contribute to approximately 80% of the total capital invested in European tech companies during early stage funding rounds, a share that has stayed broadly consistent over the past five years.

Capital invested in Europe by geographic source region (%), 2019 to 2023

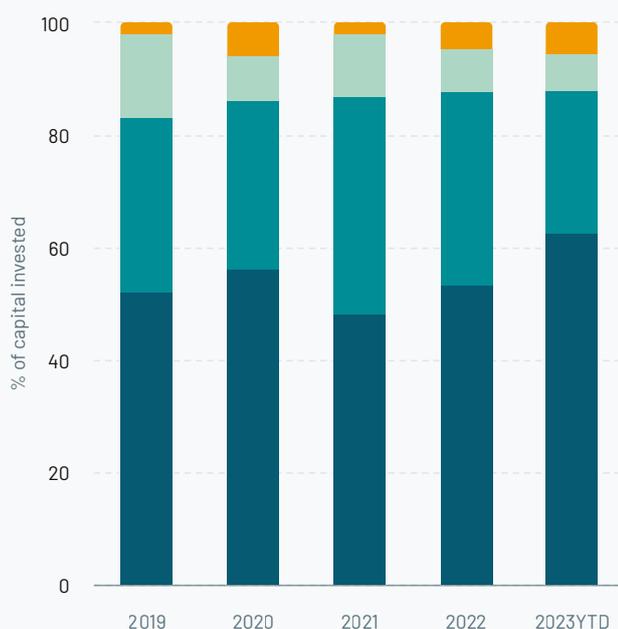


Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: dealroom.co

- Rest of World
- Asia
- North America
- Europe

Growth stage



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources:  dealroom.co

Bench of active European investors is deepening

The number of unique investors actively deploying into European tech companies has risen consistently over the past decade, unsurprisingly spiking during the peak period of 2021 and the first half of 2022. This period in particular was characterised by a significant ramp in the number of investors from outside the region deploying into Europe, growing especially quickly from North America.

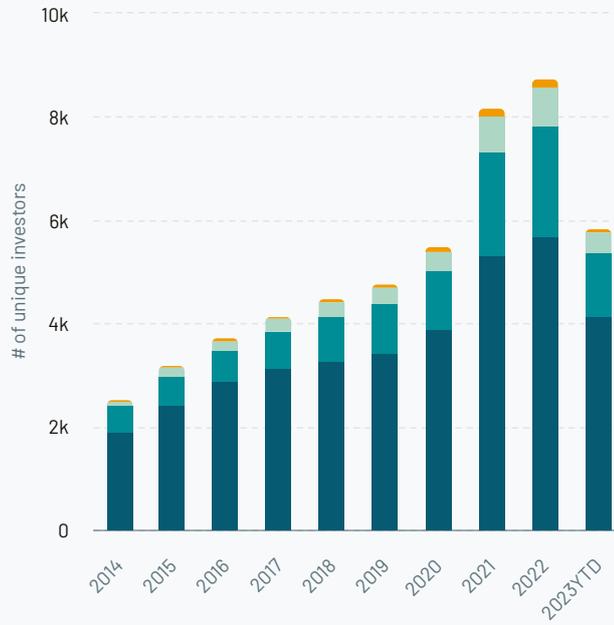
While the full-year numbers for 2023 will end up higher than the year-to-date numbers shown in the chart, the reset in the market has seen the number of active investors retreat, driven by a significantly reduced level of participation from non-European investors.

But despite the slowdown in 2023, and even without taking into account full-year numbers, the base of active investors is still more than double the level of just a decade ago.

This commitment to embrace the perceived risk of investing through market cycles is a critical foundation to ensure the European tech ecosystem continues to benefit from a significant and stable base of local investors.

Number of unique investors investing in European tech by investor HQ region, 2014 to 2023

- Other
- Asia
- North America
- Europe



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Other includes investors with HQ countries in rest of the world.

Sources: **atomico** Powered by



dealroom.co

crunchbase



I am confident that investors, in the light of the multi-layered crises we are facing, will realise that VC as an asset class is the single best hedge for their exposure to portfolios of companies with unsustainable business models.

Uli Grabenwarter

Deputy Director, Equity Investments & Guarantees, EIF

What will make investors deploy capital? Human intelligence, I would hope. What is the alternative to deploying the accumulated capital now? To wait? Wait for what? Better entry valuations than today? Unlikely. Or lower interest rates that make VC relatively more “attractive”? Institutional investors, pension funds, insurance companies, won’t meet their future payment obligations with single digit fixed income rates, without the returns that only venture will be able to generate. Or maybe wait for a more stable geopolitical environment? Dream on. Besides, as the investors community, we will have to realise that without us engaging at scale in the funding of innovation and technology, many of the business models that our today’s returns rely on will disappear.

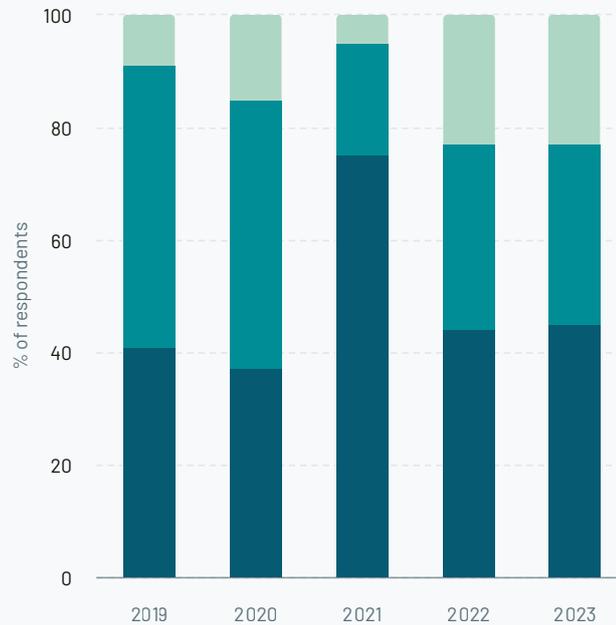
Europe’s unwavering sentiment

Despite the backdrop of almost two years of challenging macro conditions, as well as the persistent noise from negative events such as down rounds, write-offs, and reduced investment volumes, sentiment on the future prospects of the European tech ecosystem have stabilised. In fact, only 23% of respondents are less optimistic than they were a year ago. By comparison, almost two times the number of respondents (45%) stated that they are more optimistic today compared to 12 months ago.

Looking across respondent types, the state of industry sentiment is broadly aligned across all stakeholder groups. On the investor side, responses from angels, VCs and LPs all showed remarkably similar perspectives. While on the tech company side, founders and C-level executives showed slightly less positive sentiment overall in comparison to their department heads and employees.

Compared to 12 months ago, are you more or less optimistic today about the future of European technology?

- Less
- Same
- More



Sources: **STATE OF EUROPEAN TECH** Survey

Notes:
Numbers may not add up to 100 due to rounding.

A pulse check for European tech

Europe's ability to build and scale a tech ecosystem capable of realising its full potential requires a concerted focus from all stakeholders to address challenges that serve as barriers to progress.

To explore industry sentiment on this point, survey respondents shared their perspectives on what they perceive to be the greatest challenge facing the European tech ecosystem over the next 12 months.

The poor economic environment since the end of 2021 has caused a lot of pain, and so it is no surprise that the number one concern among respondents was access to capital, with the macroeconomic environment coming in at third. The ongoing war in Ukraine, as well as the devastating events we have seen unfold in the Middle East, placed geopolitical risk as the second most cited challenge. Respondents also felt the greatest problems ahead included the perceived challenge of Europe's general competitiveness when it comes to technology on the global scale, talent shortages and regulation.

What, if anything, do you see as the greatest challenge facing the European tech ecosystem in the next 12 months?



Notes:
Based on sentiment analysis of survey respondents free text answers

Sources: **STATE OF EUROPEAN TECH** Survey

Publicly-listed tech showing signs of recovery

In the public markets, a story of 2023 has been one of stabilising and recovering multiples. The heady highs of 2021 remain distant peaks, but after sinking below the long-term, 10-year average for large parts of 2022 and the first half of 2023, the median enterprise value to next-12-months (NTM) revenue multiple rebounded back above this level earlier this year, only to have fallen just below again in October 2023. The multiple for companies trading in the top quartile, meanwhile, is still hovering below the long-term, 10-year average.

It is this recovery in multiples, coupled with reduced volatility, that helped to lay some of the necessary groundwork for an initial reopening of the IPO window in late-2023 and, more significantly, will continue to be crucial, along with confidence in strong post-listing performance, to set the scene for a potential stronger increase in IPO activity in 2024.

NASDAQ-100 Technology Sector Index - Total enterprise value / NTM revenue multiple in time

- Median multiple
- Average for top revenue efficiency quartile
- Last 10 year average median
- Last 10 year average top quartile multiple



Notes:

Where revenue efficiency is the total of unlevered free cash flow margin and revenue growth. S&P Capital IQ Platform, as of date 31 October 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence

Valuations back at 5- and 10-year averages

Reflecting the multiple compression of the public markets, valuations in the private sphere are also returning to normalised pricing levels, once again highlighting 2021 within the broader context as an exceptional year.

Valuations across stages in Europe are now hovering around 5- and 10-year long-term averages. The notable stage exception is Seed, where despite a levelling off of median Seed pre-money valuations in 2023, pricing has not yet displayed a correction to long-term averages in the same way that has been evident at every stage from Series A and later.

This shift back toward longer-term averages in Europe mirrors what is happening in the US. Notably, however, median valuations in Europe continue to be 30-60% lower than in the US across all stages.



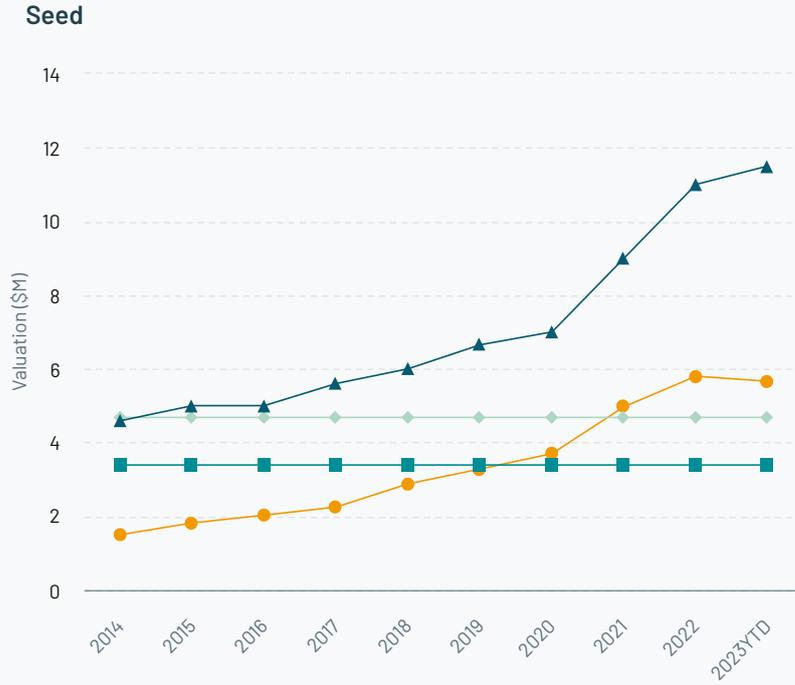
Europe has had a strong decade of growth, and it's well on its way to competing with the US.

Vishal Marria
Founder & CEO, Quantexa

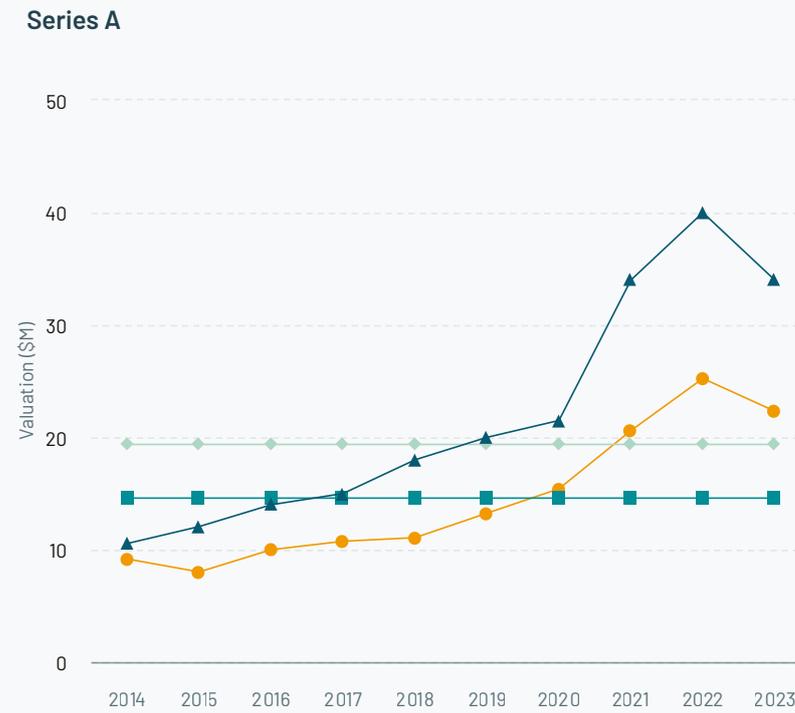
But, the attractiveness of Europe for tech startups and tech innovation has come under the microscope in recent months. And this is because we've reached a supposed turning point in which growth can only be achieved if we a) secure the right level of investment and b) involve and engage with the right talent and c) ensure that digital regulation is designed in such a way that it continues to allow companies to innovate and reach incredibly technological breakthroughs. The long-term success of Europe in becoming the next tech superpower lies in our governments' willingness to ensure that the businesses at the cutting edge of this technology innovation, are involved in ongoing conversations around how to regulate against technology. We need to see incentive schemes put in place to encourage VCs to invest in European businesses. And, we need to ensure we're doing so safely, whilst not stifling growth.

Median pre-money valuation (\$M) by stage, 2014 to 2023

- Europe median
- Europe 5-year median
- Europe 10-year median
- US median



- Europe median
- Europe 5-year median
- Europe 10-year median
- US median



Notes:
Data is as of 30 September 2023. Excluded biotech & pharma firms.

Sources: PitchBook

- Europe median
- Europe 5-year median
- Europe 10-year median
- US median

Series B



- Europe median
- Europe 5-year median
- Europe 10-year median
- US median

Series C



Notes:
Data is as of 30 September 2023. Excluded biotech & pharma firms.

Sources: PitchBook

Ecosystem value bounces back to \$3 trillion

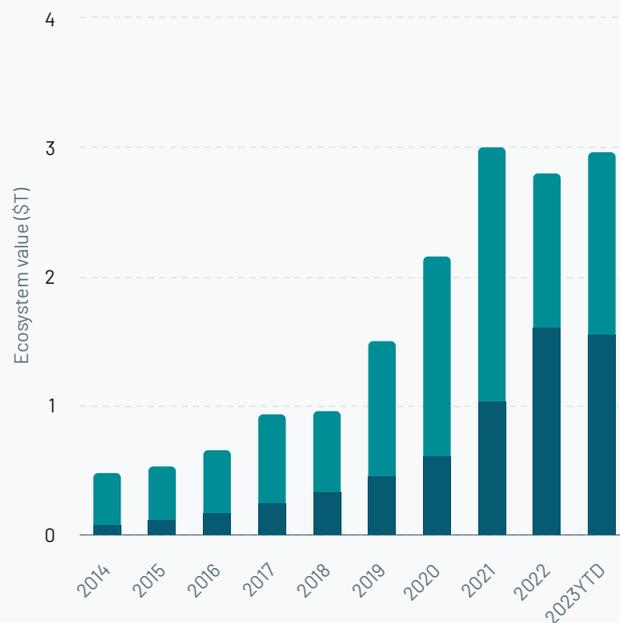
One of the 'north star' metrics for the European tech ecosystem is its total value, as measured by the combined equity value of all tech companies headquartered in the region across both public and private markets.

For context, after a peak of \$3T in 2021, 2022 saw a reduction of total ecosystem value equivalent to around \$400B. The rallying of the public markets this year, however, has helped this number bounce back to the \$3T mark.

This rebound in ecosystem value has also been supported by the continual influx of new companies starting and raising private capital for the first time, as well as the fact that, despite a large increase in the number of down rounds, the overwhelming majority of follow-on capital deployed into the ecosystem has been through flat rounds or uprounds.

Private and public markets ecosystem value (\$T), 2014 to 2023

- Public
- Private



Notes:
Private market data from Dealroom.co excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Based on data up to 30 September 2023. Public markets data as per S&P Capital IQ Platform, as of date 31 October 2023, for illustrative purposes only.

Sources: S&P Global Market Intelligence | dealroom.co

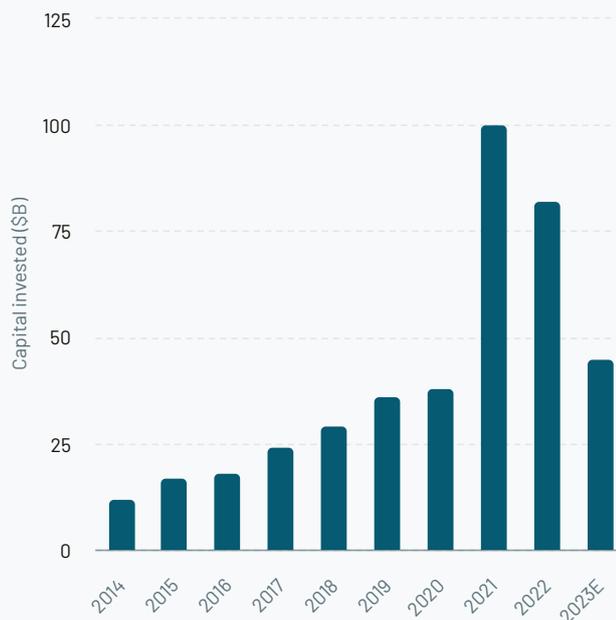
On track to raise \$45B of capital in 2023

Total capital invested into the European tech ecosystem in 2023 is on track to reach around \$45B, more starkly highlighting the impact on capital flows from the shift in the broader macro landscape compared to 2022. This will be down more than half (55%) from the record year of 2021, when investment volumes surpassed the threshold of \$100B for the first time.

This also represents a steep drop-off of 38% from 2022's total of \$82B. The decline is not surprising given the dual effect of many later-stage companies delaying fundraising, as well as materially slower deployment pacing by investors, which have both served to drive the large decline in the prevalence of outsized, late-stage investment rounds that is the biggest factor in lower amounts of capital invested.

While the decline from the peak in 2021 is large, it's worth highlighting that 2023 is on track to be the third-largest year on record by total capital invested, and is on track to come in at four times the volume seen 10 years ago in 2014. In fact, the resetting of investment levels appears to reflect a correction to the long-term upwards trajectory, following two outlier years of overheated activity.

Total capital invested (\$B) in Europe, 2014 to 2023E



Notes:

Data is as of 30 September 2023. Full year extrapolated based on year to date data. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by



dealroom.co

crunchbase

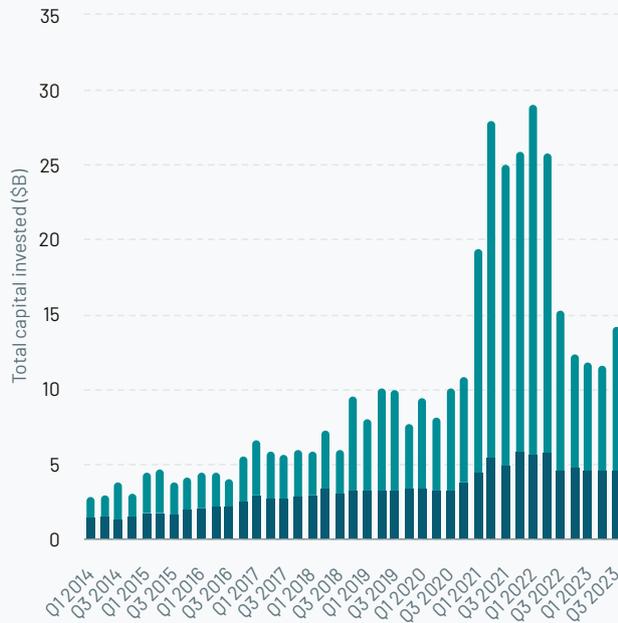
Beyond the slowdown, a funding equilibrium

The decrease in investment since 2021 is mainly due to a slowdown in growth stages. However, after a sharp drop right after the peak, there has been a stable total investment volume for the past five quarters.

Two important things to note are: Firstly, early stage investment has stayed stable despite the ups and downs in investment volume in 2021. Secondly, if we exclude the overheated 18-month period from Q1 2021 to Q2 2022, we get a clearer view of the consistent long-term growth in investment in the European tech ecosystem.

Total capital invested (\$B) in Europe by stage and by quarter, 2014 to 2023

- Growth stage
- Early stage



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

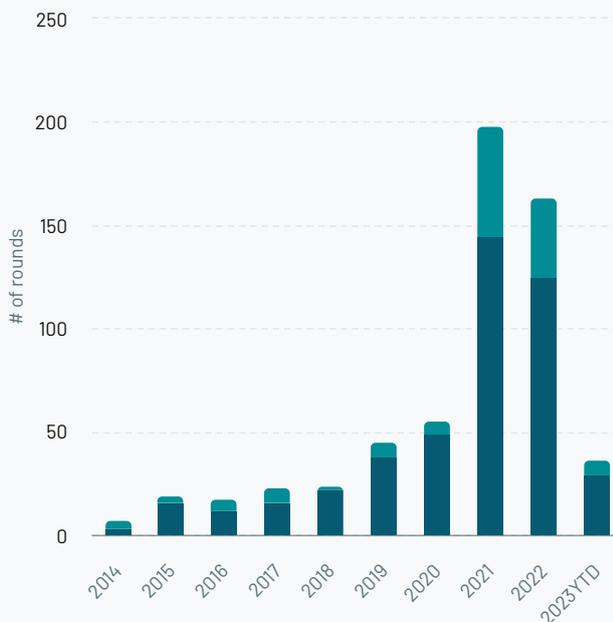
Mega-round momentum drops

The combination of the withdrawal of crossover investors and the general slowdown in late-stage investment activity is unsurprisingly reflected in a huge decline in the number of so-called mega-rounds, meaning round sizes of \$100M or more. In the peak of 2021, there were almost 200 rounds of this magnitude, including more than 50 rounds greater than \$250M.

While this number declined slightly in 2022 to 163 rounds of \$100M or more (of which 38 were greater than \$250M), the first nine months of 2023 saw a far more significant decrease. In the first nine months of 2023 to date, there have been 36 rounds of \$100M or more, of which only seven have been sized in excess of \$250M.

Number of \$100M+ rounds, 2014 to 2023YTD

- \$250M+
- \$100-250M



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech,
secondary transactions, debt,
lending capital, and grants.

Sources: **atomico** Powered by



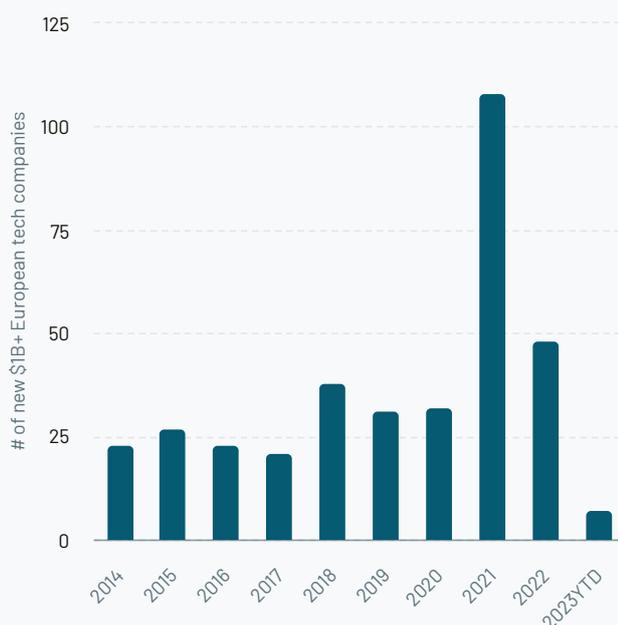
Tough times for Europe's billion-dollar startup club

Predictably, a reduction in late-stage funding round volume and a major reset in the valuation environment has led to a huge drop in the number of companies surpassing the billion-dollar valuation milestone for the first time in 2023.

2023 is on track to see the lowest number of new \$B+ companies emerge from Europe in the last decade, with just seven as of the publication deadline at the end of October 2023. This is, of course, in stark contrast to 2021's record-breaking total when 107 new companies hit a billion-dollar valuation.

In our last year's report we first introduced the concept of de-horned unicorns, \$B+ companies who's valuation has dropped below this milestone since first hitting it. In 2022, 58 dehorned unicorns were mapped with the equivalent figure improving to 50 this year. Hence, in an effort for more clarity, then when referring to \$B+ companies, we have in mind tech companies that command that that valuation still today.

Number of new \$1B+ European tech companies by year, 2014 to 2023YTD



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech,
secondary transactions, debt,
lending capital, and grants.

Sources: **atomico**



Moving forward requires the courage to take risks and to continue investing in and researching technology that has the potential to impact business and society.

Jarek Kutylowski
Founder & CEO, DeepL

Overall, it is an incredibly exciting time to be working and researching in the technology field, and even more so in the AI landscape. If you want to create truly groundbreaking technology, taking risks is the only way to do it. In that, you should consider competition as both an encouragement and an existential threat. In Europe we are in a unique position where we can harness new, up-and-coming talent while incorporating the lessons learned by our predecessors in the US tech scene. European companies can also leverage strength through embodying European values—such as data security—to be successful on a global scale. Product wise, I would advise that founders keep quality top of mind when developing digital products. This will keep customers engaged and will solidify their trust for years to come. There are so many talented tech innovators who have a solid business foundation—ensuring quality transforms a sound business idea into a truly great product.

Round sizes realign with historical averages, talent costs soar

Unsurprisingly, capital investment volumes are also being shaped by changes in round sizes and not just the absolute count of rounds taking place. At the later stage, following a reduction in the latter half of 2022, there are now observable signs of stabilisation in round size over the course of the past four quarters. As a consequence, these changes have brought round sizes back in alignment with the longer-term, 5-10 year averages for the later stages.

The trend at the earlier stages, however, is somewhat different. At Seed and Series A, median round sizes have also seen a period of stabilisation following rapid increases during 2020 and 2021, but remain elevated at levels significantly above 5-10 year averages.

For late-stage founders in particular, this inevitably translates to having to achieve more with less capital for an extended period of time, despite the ongoing inflationary pressures on wages that are keeping talent costs elevated.

US Seed stage companies raise significantly larger rounds, roughly twice as large as their European counterparts. This delta starts narrowing as companies mature, disappearing by Series C.

Round size (\$M) per quarter by stage, 2019 to 2023

- Median
- Last 5 years average
- Last 10 years average
- US Median

Seed



Series A

- Median
- Last 5 years average
- Last 10 years average
- US Median



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

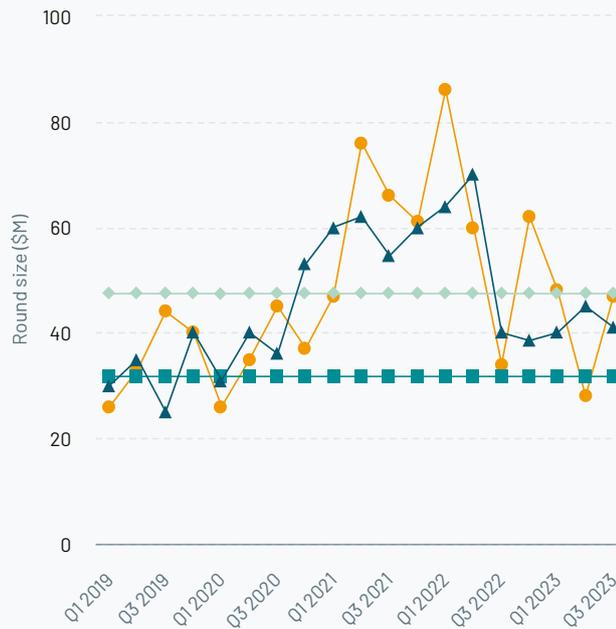
- Median
- Last 5 years average
- Last 10 years average
- US Median

Series B



- Median
- Last 5 years average
- Last 10 years average
- US Median

Series C



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

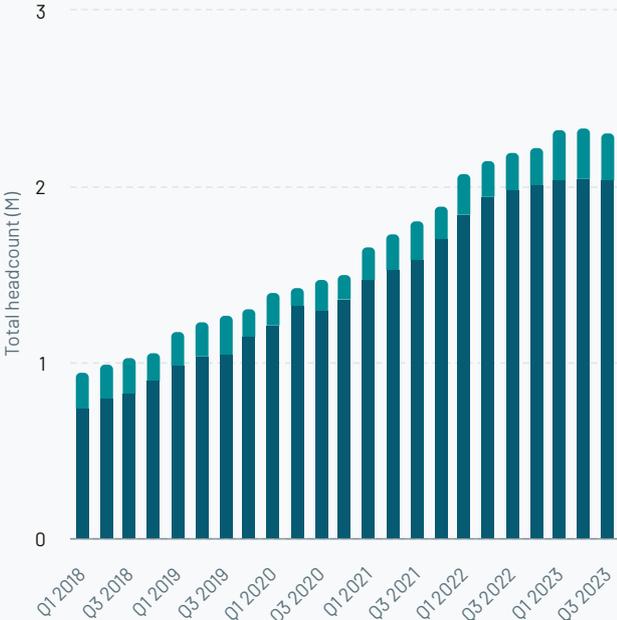
Tech employment resilient in face of layoff storm

Even in the face of challenges in the capital markets and concerning indicators such as layoffs that may impact the perceived attractiveness of joining the industry, European tech is not losing its strong appeal to talent and has not seen any exodus of talent out of the industry. In fact, new positions are constantly being created, and talent from outside of tech continues to look past any perceived risk to place significant bets on the European tech sector.

Although there has been a levelling off in the rate of increase of net new joiners into the tech industry over the past three quarters and a very small overall decline in total headcount in Q3 2023, it's remarkable that in just five short years, European tech has expanded its workforce from slightly over one million employees to more than 2.3 million today.

Total European tech industry employees by quarter, 2019 to 2023YTD

- New joiners to tech industry
- Tech industry headcount



Notes:
To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. Data is as of 20 September 2023, thus Q3 is incomplete.

Sources: **atomico** Powered by **revelio labs**

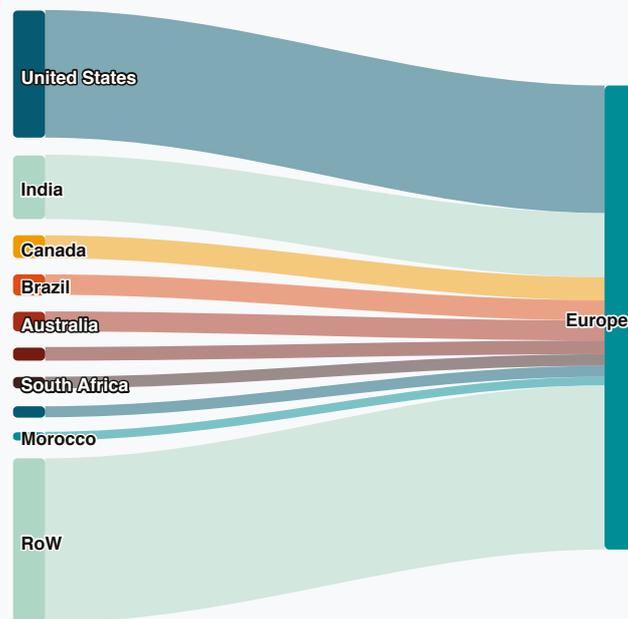
The movement of talent across borders

Europe is a net beneficiary of talent flows, attracting new starters from across the globe. That means we're gaining more international talent than we're losing.

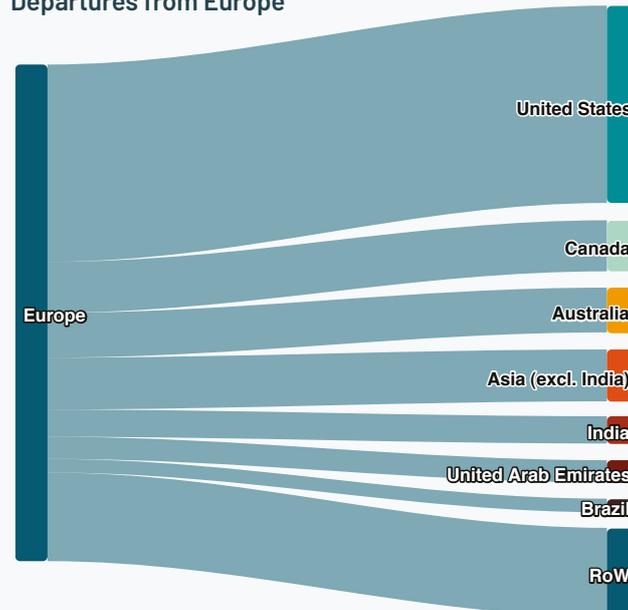
Notably, more talent is moving from the US to work in European tech than European talent is moving to join the US tech scene. It really illustrates the pull our companies now have. In fact, Europe is a net gainer from essentially every single region, apart from Australia.

Global tech employee arrivals to Europe, 2023

Arrivals to Europe



Departures from Europe



Notes:
 Data for 2023 only, where an arrival has taken place on or after 1 January 2023.
 Arrivals measured as employees joining tech companies only, but could have previously worked at either non-tech or tech companies. Data is as of 20 September 2023.

Sources:

atomico^o Powered by
 revelio labs

Europe outpaces US in new tech founders despite global slowdown

The impact of the market reset is also visible in the effects on entrepreneurship and the rate of new company formation by founders. Globally, the rate at which founders are starting new tech companies has receded by approximately 30% from its peak in 2020, with this decline reflected in the data for new tech founders in both Europe and the US.

While a decrease in new companies being founded might appear concerning at first glance, there is a case to be made that this reflects a return to 'healthier' conditions.

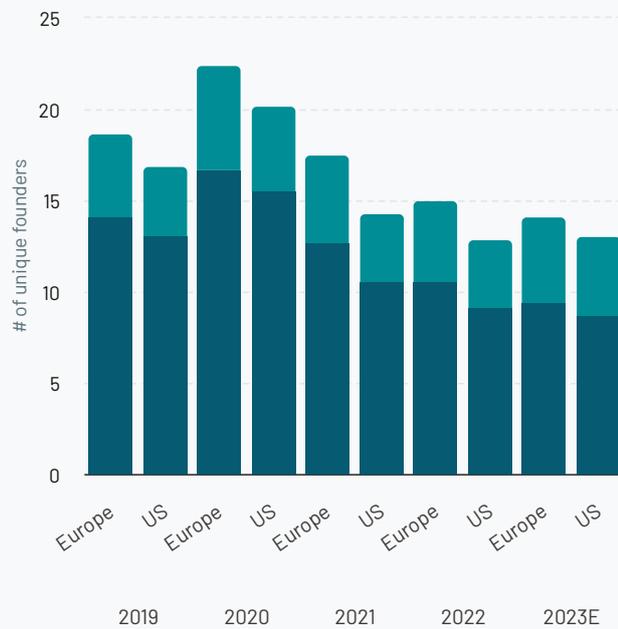
Those who are taking the leap into entrepreneurship today face a higher bar to raise money, attract talent, and win customers. This changes the perceived risk of starting a company and, as a consequence, has the effect that only the most committed and resilient founders are prepared to embark upon the entrepreneurial journey.

Subsequently, it is not surprising to see the share of repeat founders remaining stable, while almost all the decline is accounted for by fewer first-time founders.

What will, however, be surprising to most is the fact that the annual volume of founders starting new tech startups in Europe exceeds the US, and has done so consistently for every one of the past five years.

Number of first-time and repeat founders starting new companies per year, 2019 to 2023

- Repeat founders
- First-time founders



Notes:
To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. 2023F is based on data adjusted for lag effect and extrapolated based on data as of 20 September 2023.

Sources: **atomico** Powered by **revelio labs**



“Europe is a hotbed for the kind of diversity needed to build the future of AI – and as an industry, we have a responsibility to continue to grow and nurture that talent.”

Lila Ibrahim
COO, DeepMind

At Google DeepMind, we believe in the importance of building AI-first skills, which is why we co-created and launched a program with the Raspberry Pi Foundation to make AI education accessible to students aged 11-14. Experience AI offers cutting-edge resources on the responsible development of artificial intelligence and machine learning to teachers and their students, including lesson plans, slide decks, worksheets, and videos. Programs like this, alongside the fellowships, scholarships and other education initiatives we support are all designed to help more learners, from more diverse backgrounds build an AI ecosystem that works for everyone.

Sustainability and health: Tech’s hottest talent magnets

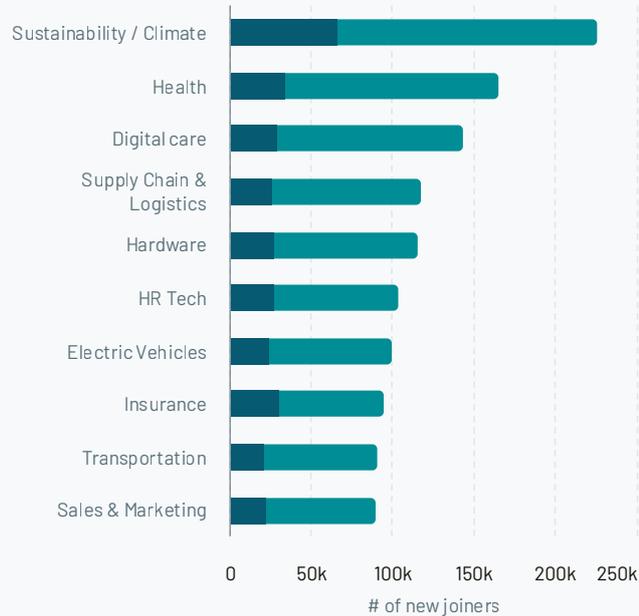
It’s one thing to have great talent, but are they working on the hardest problems?

Here, we look at the flow of talent into and within the tech industry, broken down by theme. This helps us to quantify talent flows and identify the sectors drawing in top talent, whether they are completely new to the tech industry or moving jobs within it.

Sustainability and health take the #1 and #2 spots, clearly reflecting the powerful magnetic effect of purpose-led companies in attracting talent.

Top 10 themes by number of new joiners, by type

- New joiners from within tech
- Net new tech joiners



Notes:
To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. 2022 data shown as of 20 September 2023. Companies may be assigned to multiple themes, causing talent to also being assigned to more than one theme.

Sources: **atomico** Powered by **revelic labs**

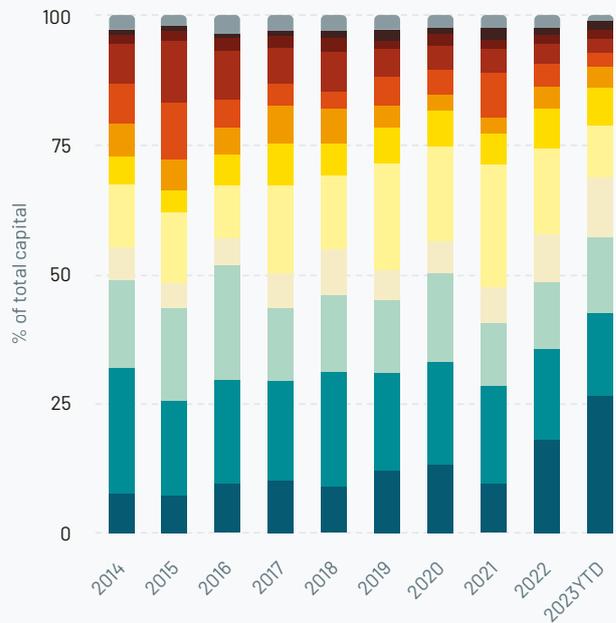
Climate tech outstrips fintech in European markets

It is not just talent that is being drawn to the hardest problems. Capital is flowing in the same direction too investment volumes are broken down by sector. Remarkably, the Carbon & Energy sector, which encompasses climate tech, accounts for 27% of all capital invested in European tech in 2023, more than doubling its share of investment since 2021.

This has seen the sector overtake Finance & Insurance, as well as horizontal Software as the single largest sector by capital raised. This not only represents a dramatic increase in the scale of capital invested behind the green transition, but also a clear slowdown in fintech investment volumes since the peak of the market.

Distribution of total capital invested by sector (%), 2014 to 2023

- Transportation
- Food and Drinks (incl. Agriculture)
- Education
- Wholesale & Retail
- Warehousing & Manufacturing
- Social, Arts, Entertainment & Recreation
- Digital infrastructure
- Finance & Insurance
- Enabling technologies
- Health
- Software
- Carbon & Energy



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by



In the wake of 2022's challenges, we've witnessed a remarkable shift in the dynamics between investors and founders.

Shawn Atkinson

Partner and global co-head of Tech Companies Group, Orrick

Investors are increasingly drawn to visionary founders tackling big societal, environmental and health problems, forging a more collaborative and resilient tech ecosystem.

AI innovation wave ignites Europe's Seed scene

Looking more closely at the most popular sectors at the earliest stages, we see other key trends starting to take off as well for Seed investments. Not surprisingly, the most notable one is the rise of AI, with a huge number of companies popping up to capitalise on the wave of innovation ignited by breakthroughs in large language models (LLMs). This has catapulted AI/ML to the top of the charts as the number one earliest-stage category, as ranked by the count of rounds of investment of \$5M or less.

Though things are certainly incredibly active at the earliest stages in AI, Europe already has a growing and maturing ecosystem of growth stage companies with AI at their core.

Top themes ranked by capital invested for rounds of less than <\$5M, 2023



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech,
secondary transactions, debt,
lending capital, and grants.

Sources: **atomico** Powered by

dealroom.co **crunchbase**

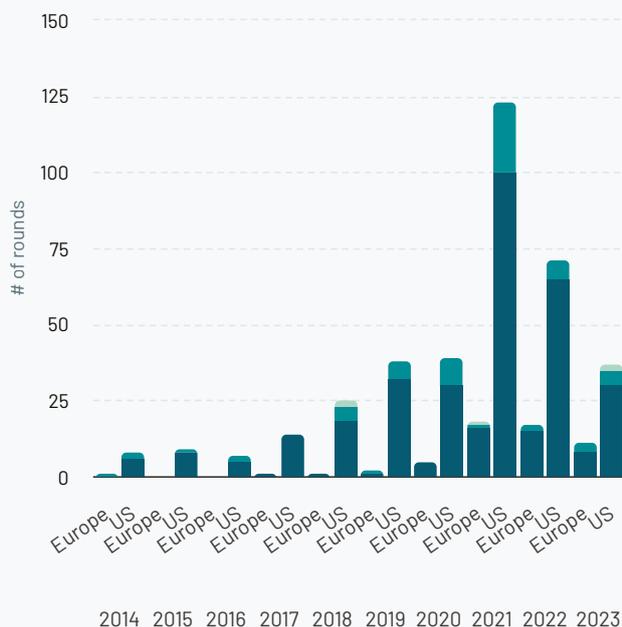
Rapidly sc-AI-ling up

There has been no shortage of perspectives on Europe's position in the AI race. Amidst the noise, it is easy to overlook the fact that the AI theme has actually hit a stride in Europe in recent years, with European AI companies consistently securing mega-rounds of \$100M or more. In fact, this year will come close to matching the record set in 2021, despite the huge headwind of a steep drop in overall investment levels in Europe in 2023.

As of the end of Q3 2023, European AI companies had raised 11 rounds of \$100M or more, compared to 37 rounds by US AI companies over the same period. So far, however, European AI companies have not yet raised the type of billion-dollar or multi-billion-dollar rounds that have become crucial sources of firepower for the most important and fastest-growing US AI companies, such as OpenAI or Anthropic. The multi-\$100M+ rounds, however, certainly are beginning to appear in Europe too.

Number of \$100M+ rounds in AI / ML, 2014 to 2023

- \$1B+
- \$250M-\$1B
- \$100M-\$250M



Notes:
2023 data is based on data to September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

Generative AI sector rises in Europe’s tech scene

The most remarkable subset within the AI space this year has undoubtedly been Generative AI.

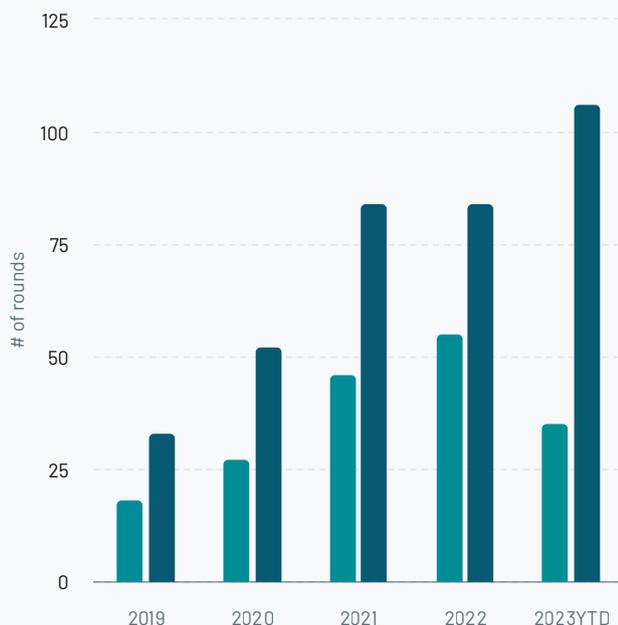
Generative AI companies focus on developing and applying artificial intelligence technologies, particularly machine learning techniques, to generate new content, data, or media. This category features companies like Mistral AI and Aleph Alpha in Europe, alongside OpenAI (the makers of ChatGPT) and Inflection AI in the United States.

While Generative AI companies may represent a relatively small fraction of overall tech fundraising activity on an absolute count basis, they have swiftly had an outsized impact on workflows, regulatory discourse, and society at large.

What is also notable is that whilst generative AI companies have leapt into the public consciousness in 2023, they have been quietly being started and funded in greater numbers for many years, both in Europe and the US.

Count of rounds in GenAI in respective regions, 2019 to 2023

- Europe
- US



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech,
secondary transactions, debt,
lending capital, and grants.

Sources:  dealroom.co

A decade of growth in Europe's AI talent pool

The fact that AI is flourishing under the radar in Europe should not be a surprise. Europe has a strong technical talent pool, owing its strength to world-class scientific and technical institutions and the depth of its engineering talent.

This strength extends into the field of AI. Over the past decade, Europe has not only witnessed a greater than 10x increase in the number of people working in AI roles but also claims a larger resident population of high-skilled AI professionals compared to the US.

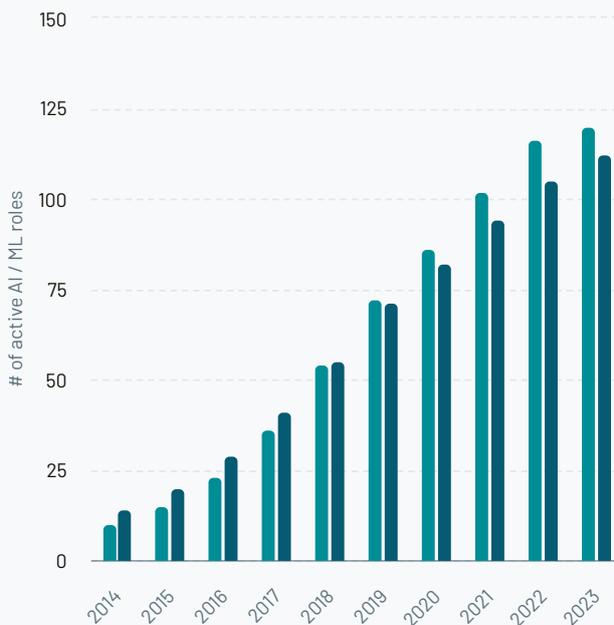
Of course, many of these AI professionals are working in roles at US-headquartered technology companies that have built a large AI research presence in Europe, such as Alphabet or Meta. But as the example of Mistral AI demonstrates - a company founded by European former leading AI researchers at Meta and DeepMind - these European-based pools of AI talent have become an incredibly rich breeding ground for the founders and talent behind the next generation of European AI companies.

Number of professionals actively employed in AI/ML roles by region, 2014 to 2023

- Europe
- United States

Notes:

To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. 2023F is based on data adjusted for lag effect and extrapolated based on data as of 20 September 2023. Data consists of all companies, including non-tech. This is based on an analysis of the job titles of 216m professionals. The universe of professional considered to be actively employed in AI/ML roles is based on a search utilizing both common job titles in the field (e.g. AI Researcher, ML Engineer), as well as key phrases used in job titles (e.g. Deep Learning, Reinforcement Learning). The query includes titles and keywords both common today and historically. A consistent methodology is applied consistently across all profiles in all geographies.



Sources: **atomico** Powered by **revelio labs**



What we're seeing is a digital renaissance that's really pushing the bounds of creativity, curiosity, self expression and intelligence.

Mira Murati
CTO, OpenAI

If you really push these bounds, natural language - how we talk to one another - is really becoming a new coding language. And with that, people have this superpower to build anything. What we use this for is up to us.



We need to take an empirical, research-driven approach to safety.

Matt Clifford

Prime Minister's Representative for the AI Safety Summit, Co-founder of Entrepreneur First

Regulation often fails when policy makers try to predict the future. Much better to commit to building public sector capacity to properly understand the capabilities, opportunities and risks of fast developing AI systems - as the UK has done with the AI Safety Institute.

Meteoric rise of tech entrepreneurship

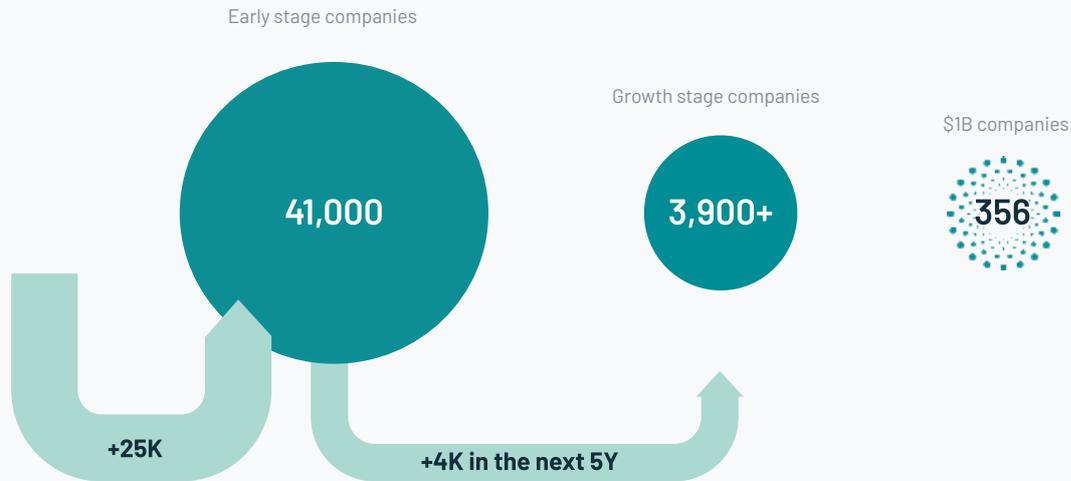
As the AI wave initiates a new technology supercycle, it's an important moment to reflect on what it will take for Europe to capture a meaningful share of this opportunity.

Europe has experienced a remarkable surge in tech entrepreneurship over the last decade, resulting in the largest pool of tech startups ever seen in the region. More than 350 startups have grown to become breakout, billion-dollar companies. But this metric is inherently backwards-looking, and therefore not as useful.

The forward-looking opportunity of the European tech ecosystem is best illustrated by the nearly 4,000 growth stage tech companies that have the potential to become the next generation of European breakout success stories. What's more, this number itself is poised to double over the next five years, thanks to the breadth and depth of early stage startup activity across Europe and these companies' expected progression through the startup lifecycle.

Of course, the pool of startups at the early stages also keeps expanding. Today, Europe has 41,000 early stage startups, and in the next five years alone, this pool will be expanded by the emergence of at least 25,000 tech startups that are anticipated to start their journey.

Snapshot of unique companies headquartered in Europe by stage



Notes:

Data as of 30Sep 2023. Based on historical analysis of conversion rates: 15% of Seed stage companies convert A on average and 33% of Series A convert to Series B (for the majority of those converting, it takes place within 2 years); these rates have been applied to the current cohort of Seed and Early stage companies for illustrative purposes.

Sources: **atomico** Powered by



crunchbase



Europe's blend of purpose, talent and investment potential is unrivalled, putting it on a clear trajectory to becoming the next tech superpower.

Erin Platts

CEO, HSBC Innovation Banking UK

Startup creation in Europe outpaces any region and we expect the breadth and depth of this activity to grow, with 25,000 more in the next five years. What sets us apart is not only the pace of growth – it's local investors stepping up to support mission-driven founders that bring together the best and brightest to solve critical challenges. Sustainability and climate in particular have been at the heart of the European ecosystem, with the Energy & Carbon sector attracting the most VC investment this year alone. The rise in funding for growth stage companies and the potential for more IPOs in 2024 also sets the scene for a maturing tech ecosystem in Europe, unlocking more pathways to growth for purpose-driven founders.

Europe's tech startup boom meets funding bottleneck

Europe is seeing more new tech startups being formed than any other region, supported by the strongest ever teams working on the most challenging and urgent problems. Europe has all the essential raw ingredients to become the next tech superpower. But for Europe to be able to shape the future of tech, the ecosystem needs to take further action to embrace the opportunity and to embrace the risk that comes with it.

Europe's ability to fund and build true innovation has evolved by leaps and bounds over the past decade. Nevertheless, a noticeable disparity with the US persists in terms of access to capital.

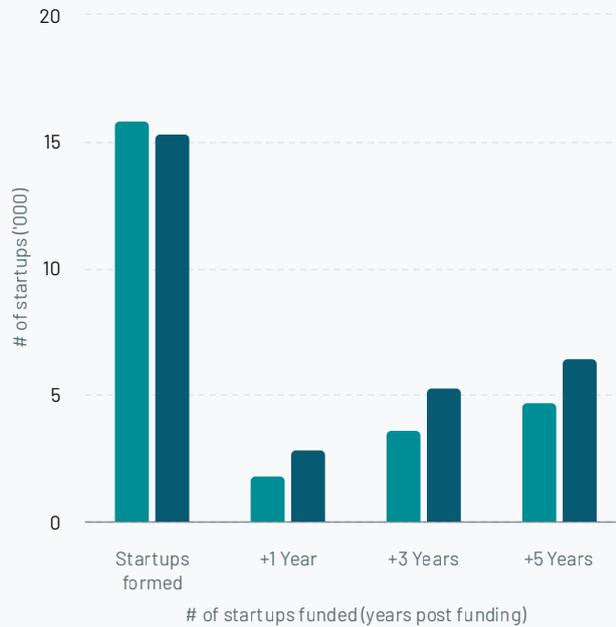
More European tech startups are formed each year, but over time, a growing gap emerges when it comes to their likelihood to secure external investment.

After five years, US tech startups are 40% more likely to have successfully secured venture capital funding. This is in spite of the fact that once companies secure an initial round of Seed investment, the probability of scaling to a billion-dollar valuation is the same in Europe as it is in the US.

This underlines the imperative for the European tech ecosystem to ensure that funding flows to European talent, to give them the firepower to compete globally and to ensure Europe can play a meaningful role in shaping the future.

Early stage funnel for 2018 cohort of companies, Europe vs United States

- Europe
- United States



Notes:

Data as of 20 September 2023. Based on historical analysis of conversion rates: 15% of Seed stage companies convert to Series A on average and 33% of Series A convert to Series B (for the majority of those converting, it takes place within 2 years); these rates have been applied to the current cohort of Seed and Early stage companies for illustrative purposes.

Sources: **atomico** Powered by



revelio labs

crunchbase

Founders are looking for alignment on vision

When asked the same simple question - what do founders really want from their VCs - there is a surprising divergence in responses depending on whether you ask this of the founders themselves, or whether you put it to VCs.

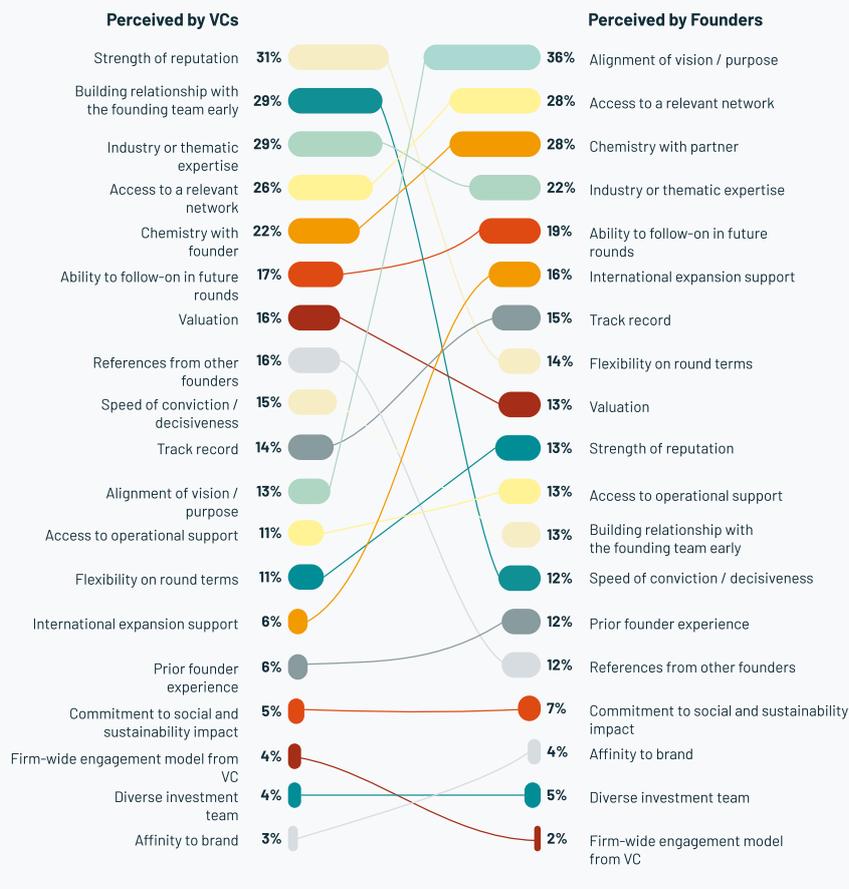
While VC respondents are most likely to cite the importance of building a relationship with founders early (the top ranked answer selected by 29% of VC respondents), this features way down the list of priorities for founders (13% of founder respondents).

For founders, however, what truly matters is finding a VC that truly 'gets them', highlighted by the fact that a shared alignment of vision/purpose is by far the most cited response (36%) selected by founder respondents. This desire to find an investor with a strong connection to their company is also indicated by the high share of

founder response highlighting the importance of industry or thematic expertise (22% of founders), as well the importance of having chemistry with the investor partner (28% of respondents).

What is also interesting is just how low down the priority list certain oft-discussed considerations rank for both founders and VCs, such as the diversity of the investment team, prior founder experience, and brand affinity.

What are the most important considerations when selecting an investor to lead your next round? The past 12 months, and thinking generally about market, what in your opinion have been the most decisive factors to win a competitive deal situation?



Notes:
 Founder and VC respondents only. Respondents who selected "other" are excluded from data. Numbers do not add to 100 as respondents could choose multiple options.

Sources: STATE OF EUROPEAN TECH Survey

Reflecting on Skype's 20th anniversary

A single success story can have an outsized impact on the tech ecosystem. This is exemplified by Skype, co-founded 20 years ago by the CEO of Atomico, Niklas Zennström.

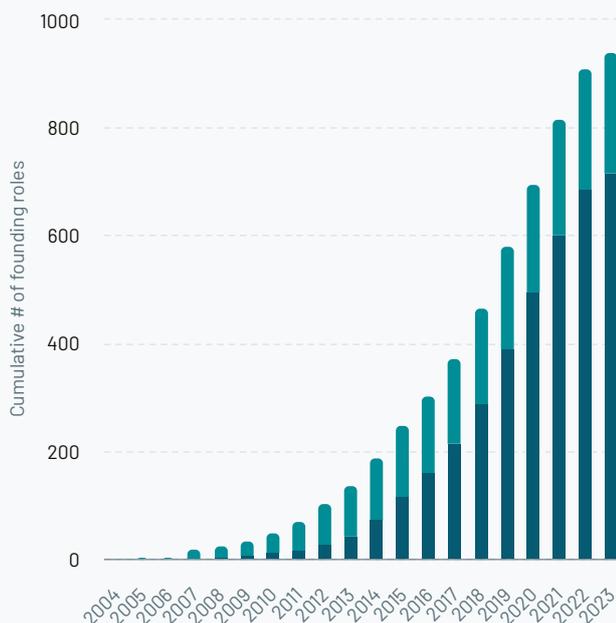
Skype's workforce absorbed a culture of innovation and subsequently went on to start Europe's next generation of leading tech companies. In total, the first- and second-generation entrepreneurs to have emerged from the Skype alumni network have gone on to start more than 900 companies across 50 countries all around the world.

This alumni network has already produced additional billion-dollar companies and, today, Skype alumni companies employ more than 65,000 people worldwide.

It's astonishing to witness the ecosystem-level effect that a single game-changing company can have over time.

Cumulative number of founding roles across the Skype ecosystem, 2004 to 2023YTD

- 1st Generation (Post-Skype)
- Next Generations



Sources: **atomico** Powered by



revelio labs

crunchbase

Notes:
Data is as of 20 September 2023.



I feel incredibly proud of what we started at Skype.

Niklas Zennström
Founder & CEO, Atomico

At the time, sceptics thought that the European tech scene was over and that we'd never recover from the dot-com crash. Skype, and all of the brilliant companies that followed, proved those sceptics wrong. Together, we've built an innovative and, crucially, resilient ecosystem that's on the cusp of becoming a superpower.

Each success story contributes to the health of the European tech flywheel

Skype acted as a launchpad for diverse entrepreneurial ventures. The visual below illustrates a fascinating network of innovation and entrepreneurship stemming from a single origin point, Skype. What this represents is the powerful impact that just one successful and influential company can have on its ecosystem and the broader industry.

The individuals who have branched out from Skype, the 'next-generation founders', are building on their prior experiences and leveraging their expertise to shape the future of their respective industries. The various companies emerging from Skype demonstrate the diversity in expertise and talent represented.

This visualisation shows that innovation doesn't stop with one successful company. It has a ripple effect and continues to boost the European tech flywheel well after it was first established.

Skype network visualised

950
companies

65k
employees

50
countries

Notes:

Brand on public LinkedIn profiles only and companies defined "tech" as per Atomico's proprietary taxonomy model; Nodes size represent total capital raised by companies, VC funds are not sized according to their AuM. Data as of 20th of September 2023.



Sources: [atomico](#) Powered by



[dealroom.co](#)

[crunchbase](#)

The next wave

The Skype effect speaks to the catalytic impact of just one success story.

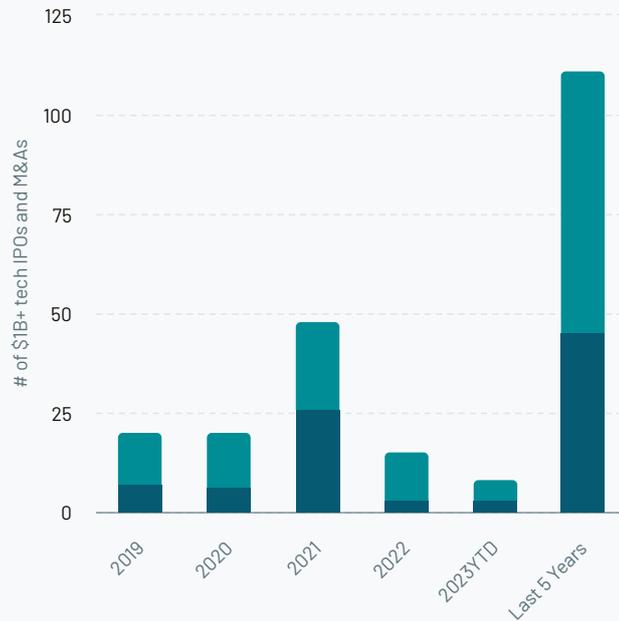
Back in 2003, during the darkest days for the European technology industry following the dotcom crash, would anyone have predicted that the value of the ecosystem today would have increased by a factor of more than 45x to hit \$3T? Would many have predicted that billion-dollar exits would start to be counted by the hundred? Surely not.

And yet, in just the past five years alone, there have been a remarkable 111 billion-dollar exits of European tech companies. This is a huge number, but it is also just the start. Europe's never had a stronger pipeline of billion-dollar exit candidates.

This also underlines why it's so critical for the ecosystem to see a return to a healthy and functioning exit market, both in the form of entry to public markets, as well as through M&A.

Count of \$1B+ European tech IPOs and M&As, 2019 to 2023

- M&A
- IPO



Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only. Includes announced and completed M&A transactions only (excluding since terminated/withdrawn).

Sources: **S&P Global**
Market Intelligence

Talent flywheel accelerating with unicorn alumni

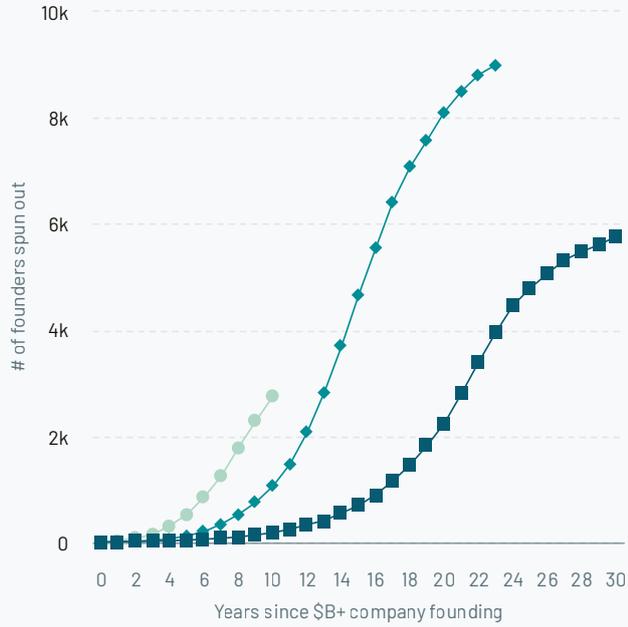
The story of Skype is far from unique in Europe today. In fact, the European tech ecosystem has witnessed an industry-wide surge in the number of new companies launched by individuals that have spun out of Europe's billion-dollar companies. In doing so, they benefit significantly from the established knowledge and networks they take with them.

Remarkably, nearly 9,000 companies have been initiated by alumni of European exited unicorns that were founded during the 2000s. To put this into perspective, it is nearly a staggering 50% increase compared to the unicorns founded in the 1990s.

It is not difficult to imagine how this network effect will significantly influence Europe's path in the next ten years.

Number of new 1st and 2nd generation founders spun out from exited European unicorns, by unicorn founding decade and years since founding

- 2010s
- 2000s
- 1990s



Notes:
Based on founders attributes and the date they indicated starting their company

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

02



Investment levels	67
Countries	103
Themes	127

Companies

2.1

Investment levels

Key findings

Europe is on track to raise \$45 billion of capital in 2023

While this is significantly less than the \$82 billion raised in 2022, it's still the third-highest year on record.

Few new members admitted to the billion-dollar startup club

This year is on track to see the lowest number of \$B+ companies emerge from Europe in the last decade, with only 7 new unicorns.

Europe's startups are experiencing a funding bottleneck

After five years, US tech startups are 40% more likely to have secured venture capital funding than their European counterparts. That's despite the fact that after securing an initial Seed round, a company's chances of reaching a billion-dollar valuation are the same in Europe and the US.

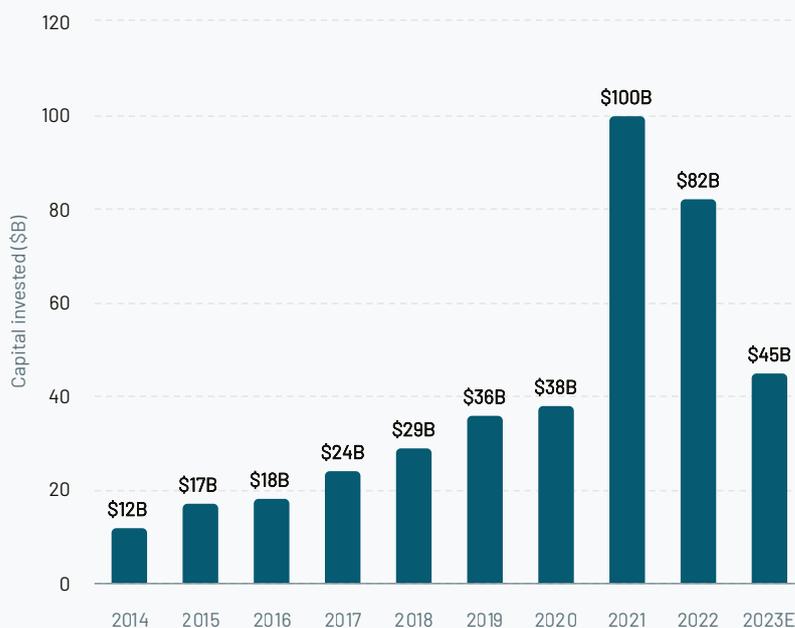
On track for \$45B of capital invested in 2023

Total capital invested into the European tech ecosystem in 2023 is on track to reach around \$45B, starkly highlighting the impact on capital flows as a result of the shift in the broader macro landscape. This will be down more than half (55%) from the record year of 2021, when investment volumes surpassed the threshold of \$100B for the first time.

This also represents a steep drop-off of 38% from 2022's total of \$82B. The decline is not surprising given the dual effect of many later-stage companies delaying fundraising, as well as materially slower deployment pacing by investors, which have both served to drive the large decline in the prevalence of outsized, growth stage investment rounds - the biggest factor in the lower amounts of capital invested.

While the decline from the peak in 2021 is large, it's worth highlighting that 2023 is on track to be the third-largest year on record by total capital invested, and is on track to come in at four times the volume seen 10 years ago in 2014. In fact, the resetting of investment levels appears to reflect a correction to the long-term upwards trajectory, following two outlier years of overheated activity.

Total capital invested (\$B) in Europe, 2014 to 2023E



Notes:
Data is as of 30 September 2023. Full year extrapolated based on year to date data. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**



To stay ahead in a rapidly evolving industry, founders and startups must be agile, willing to experiment, pivot and take risks.

Glen Waters

Head of Early Stage Banking, HSBC Innovation Banking UK

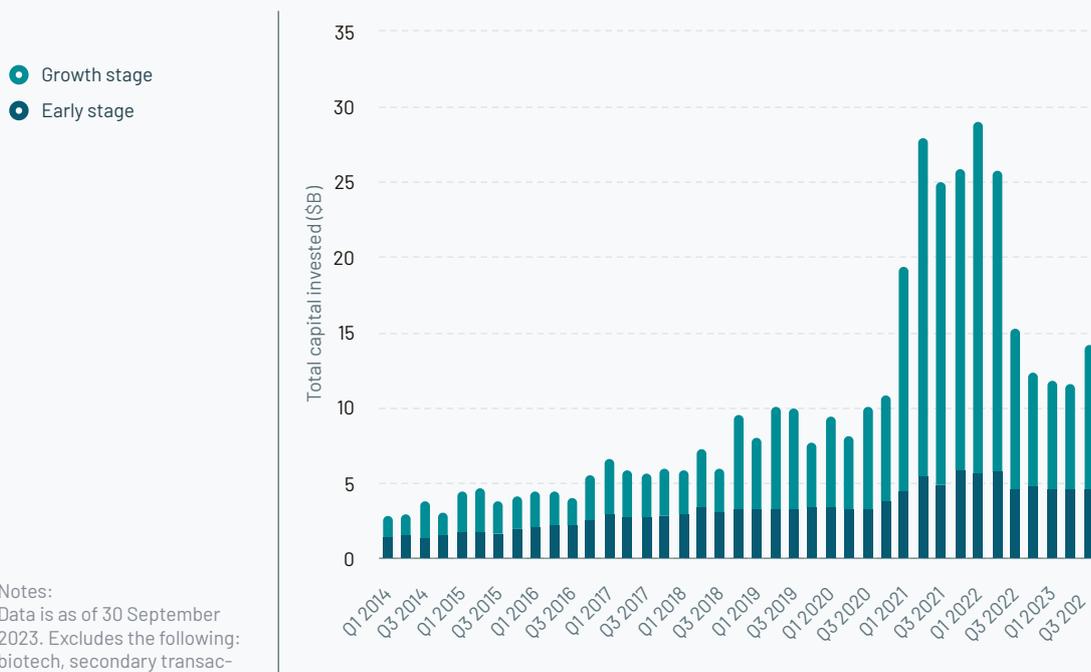
They need to look ahead, keeping up to date on the latest trends and technologies, whilst being customer centric and ensuring expectations are exceeded, including creating new products and services. Following these principles will help founders develop and scale at pace and position a company for success.

Beyond the slowdown, a funding equilibrium

The decrease in investment since 2021 is mainly due to a slowdown at the growth stages. However, after a sharp drop right after the peak, there has been a stable total investment volume for the past five quarters.

There are two important things to note. First, early stage investment has stayed stable despite the turbulence in investment volume since 2021, reflecting the vibrancy of Europe’s early stage startup scene. Second, if we exclude the overheated 18-month period from Q1 2021 to Q2 2022, we get a clearer view of the trajectory of consistent, long-term growth in investment in the European tech ecosystem.

Total capital invested (\$B) in Europe by stage and by quarter, 2014 to 2023



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

The market reset is a global phenomenon

Of course, the market reset isn't solely a European concern: it's a worldwide phenomenon with Europe facing the same downward trend in investment as every other region globally. There has been a notably consistent reduction in global private tech investment not only in Europe, but also in the US, China, and beyond.

However, zooming out a few years, Europe has continued on an upward trajectory and is on track to raise 18% more compared to 2020. We are the only region globally where long term growth has not flattened out. Meanwhile the US, China and Rest of World are on track to land on or below 2020 figures.

Capital invested and change in capital invested (%) by region, 2020 versus 2023



Notes:
Data is as of 30th September 2023. Full year extrapolated based on year to date data.
Excludes the following: biotech, secondary transactions, dept, lending capital and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

The toughest fundraising environment

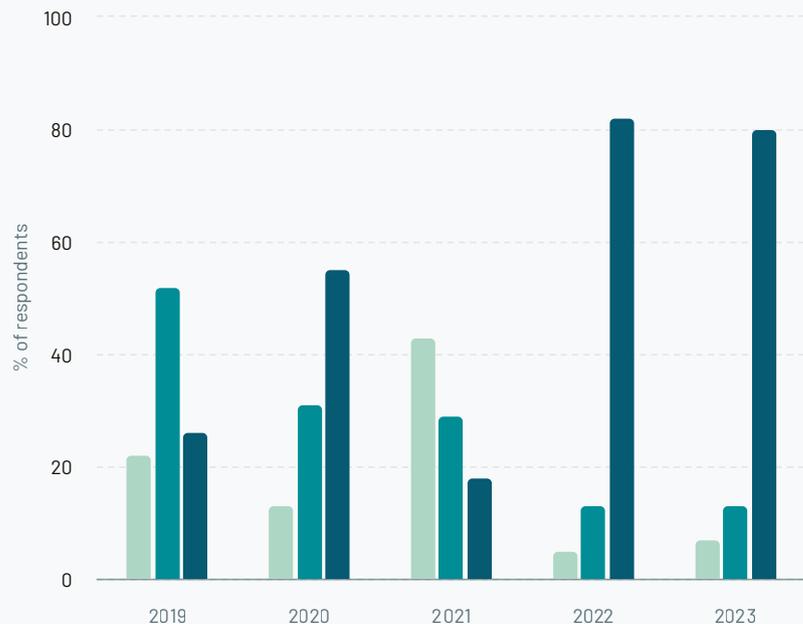
The impact of the market reset is visible in founder sentiment when asked about the change in fundraising conditions over the past 12 months. 80% of founder respondents to the survey say that it has become harder to raise venture capital over the past year. Just 7% of respondents stated that conditions had eased.

It's worth noting that this year's responses suggest that fundraising conditions have deteriorated even further from what was already a challenging moment at the time of last year's survey, when 82% of founder respondents said that it had become more challenging to raise venture capital.

Looking at respondents from different demographics, underrepresented founders are having a relatively harder time. While the views of women and men founders are aligned, non-white founders report facing tougher barriers (87%) to fundraising compared to their white peers (79%).

In your opinion, is it easier or harder to raise venture capital in Europe than it was 12 months ago?

- Easier
- Unchanged
- Harder



Notes:
Founder respondents only.
Numbers may not add up to 100 due to rounding.

Sources: **STATE OF EUROPEAN TECH** Survey



Diversification within teams allows for greater capacity to adapt. However to sustain and build upon this trajectory, continued targeted efforts must be made to further dismantle systemic biases and promote inclusivity.

Karl Lokko
Chairman, Black Seed

Increased accessibility to information has inspired many over the last decade to embark on 'starting up'. Empowered by a culture of experience sharing, entrepreneurial awakenings are happening all over. This information evolution has contributed to a burgeoning diversity in seed-stage excellence. The transformative impact of COVID-19 has underscored a need for adaptability. Combined with a post George Floyd era, a paradigm shift has begun to take place. Under representation was collectively challenged, allowing for a greater endorsement of black talent in entrepreneurship, an increased focus on female representation within founding teams and a wider acknowledgment that diverse teams out perform their non diverse counterparts. Diversification within teams allows for greater capacity to adapt. However to sustain and build upon this trajectory, continued targeted efforts must be made to further dismantle systemic biases and promote inclusivity. The entrepreneurial ecosystem's commitment to widening the funnel isn't just an ethical imperative but a strategic advantage for the entire startup landscape.

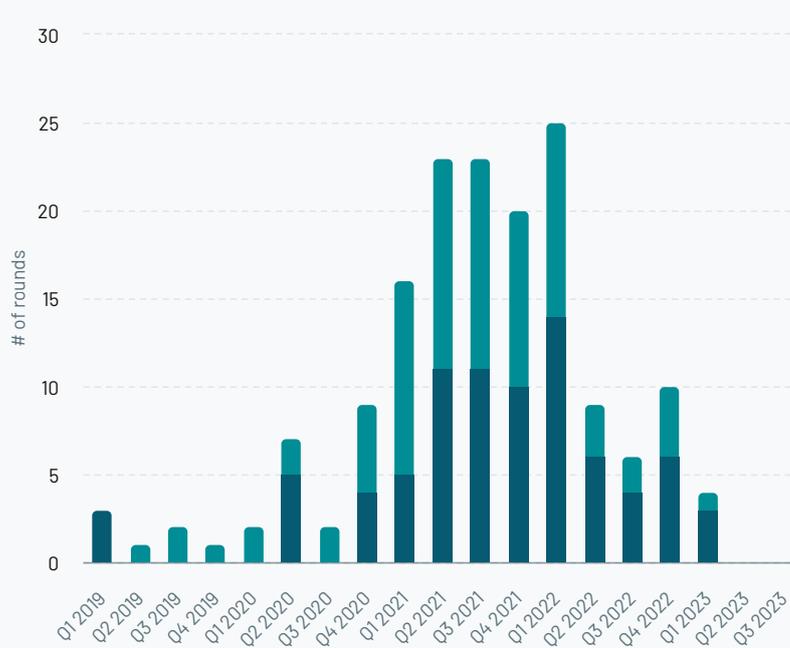
Crossover investor activity grinds to a halt

As highlighted in the 'First Look' midyear update to the State of European Tech, a consequence of a very different exit landscape has been a huge decrease in - and in some cases a complete withdrawal from - activity by so-called 'crossover investors.' The retreat of these funds that actively invest across both the public and private markets has been a major factor in the slowdown of late-stage and large-round investment activity.

In 2022, the volume of new investment activity had already started to slow dramatically, especially during the second half of the year. This year, investment activity has effectively ground to a halt, with just four new investments announced publicly so far. Interestingly, this slowdown is visible across both large rounds of more than \$100M and smaller rounds.

Number of new investments by selected crossover investors by quarter, 2019 to 2023

- \$100M+
- <\$100M



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Crossover investor activity is based on a representative cohort of more than 10 of the most active funds investing across both the public and private markets.

Sources: **atomico** Powered by



dealroom.co

crunchbase

Bench of active European investors is deepening

The number of unique investors actively deploying into European tech companies has risen consistently over the past decade, unsurprisingly spiking during the peak period of 2021 and the first half of 2022. This period was characterised by a significant ramp in the number of investors from outside the region deploying into Europe, growing especially quickly from North America.

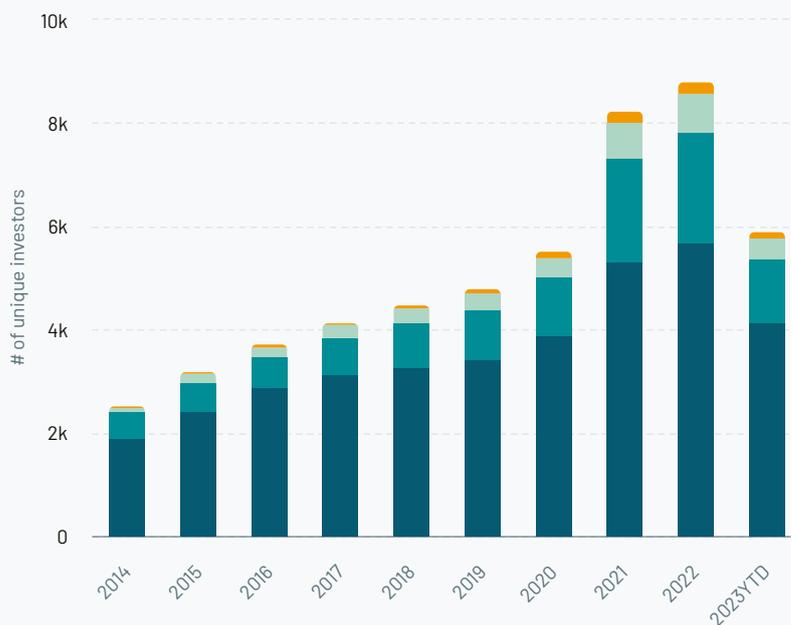
While the full-year numbers for 2023 will end up higher than the year-to-date numbers shown in the chart, the reset in the market has seen the number of active investors retreat, driven by a significantly reduced level of participation from non-European investors.

But despite the slowdown in 2023, and even without taking into account full-year numbers, the base of active investors is still more than double the level of just a decade ago.

This commitment to embrace the perceived risk of investing through market cycles is a critical foundation to ensure the European tech ecosystem continues to benefit from a significant and stable base of local investors.

Number of unique investors investing in European tech by investor HQ region, 2014 to 2023

- Other
- Asia
- North America
- Europe



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Other includes investors with HQ countries in rest of the world.

Sources: **atomico** Powered by



dealroom.co

crunchbase

Round volumes trending back to pre-2021 levels

The slowdown in investment activity is reflected in a decreased count of disclosed investment rounds. Looking at the investment activity across the last ten years, 2021 and 2022 are standout years, while 2023 is on track to land in line with prior years.

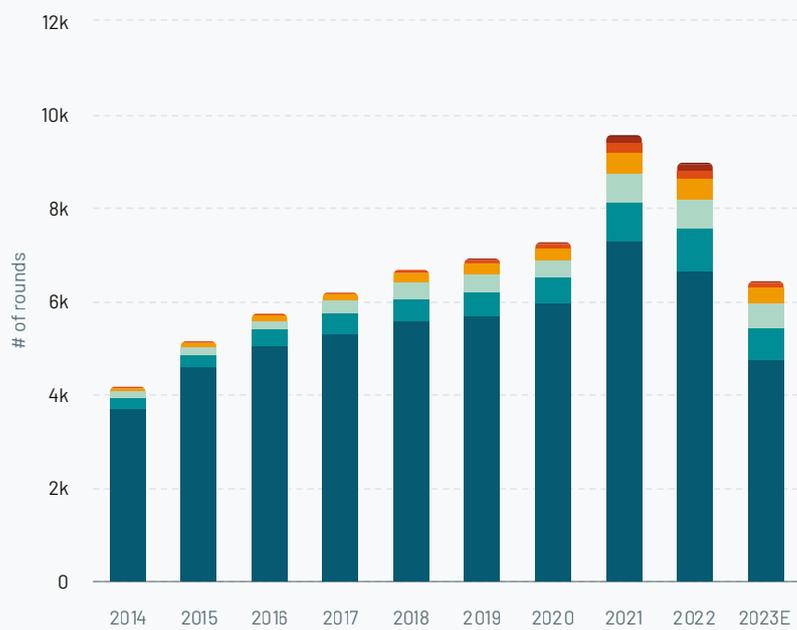
The category of rounds involving investment amounts of \$5M or less continue to represent the overwhelming majority of all activity, equating to 73% of all rounds in 2023.

It should be noted, however, that this category is most impacted by the so-called reporting lag, which results in early-stage investment rounds being systematically unpublicised for an extended period of time until re-reporting catches up to subsequent data disclosures.

This reporting lag notwithstanding, it's notable that sub-\$5M rounds account have been shrinking as a proportion of total investment rounds raised in Europe each year. Over the past three years, \$5M+ rounds have accounted for around one-quarter (24-27%) of all activity each year. A decade ago in 2014, that share stood at just over one-tenth (11%).

Number of rounds by size and by year, 2014 to 2023

- \$250M+
- \$100-250M
- \$50-100M
- \$20-50M
- \$10-20M
- \$5-10M
- <\$5M



Notes:
Data is as of 30 September 2023. Full year extrapolated based on year to date data.
Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by



dealroom.co

crunchbase

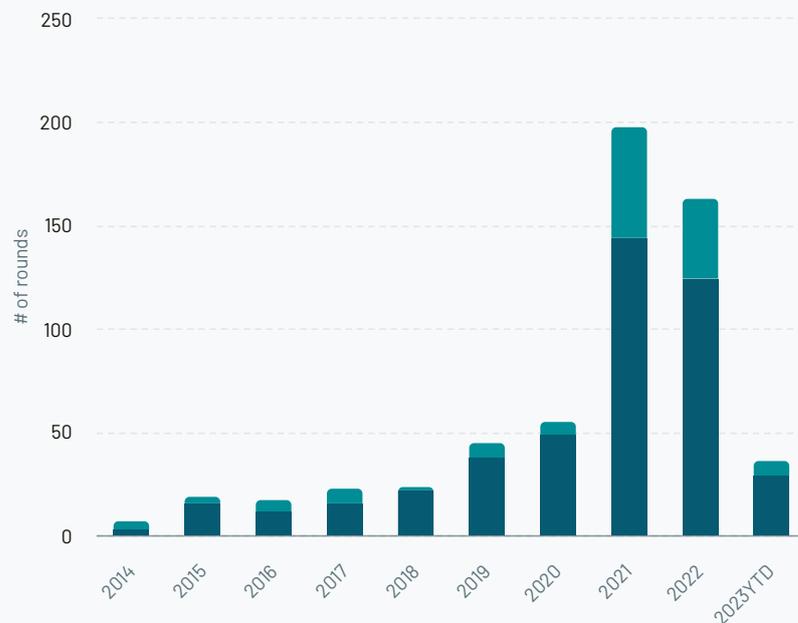
Mega-round momentum drops

The combination of the withdrawal of crossover investors and the general slowdown in late-stage investment activity is unsurprisingly reflected in a huge decline in the number of so-called mega-rounds, meaning round sizes of \$100M or more. In the peak of 2021, there were almost 200 rounds of this magnitude, including more than 50 rounds greater than \$250M.

While this number declined slightly in 2022 to 163 rounds of \$100M or more (of which 38 were greater than \$250M), the first nine months of 2023 saw a far more significant decrease. In the first nine months of 2023 to date, there have been 36 rounds of \$100M or more, of which only seven have been sized in excess of \$250M.

Number of \$100M+ rounds, 2014 to 2023YTD

- \$250M+
- \$100-250M



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by



dealroom.co

crunchbase

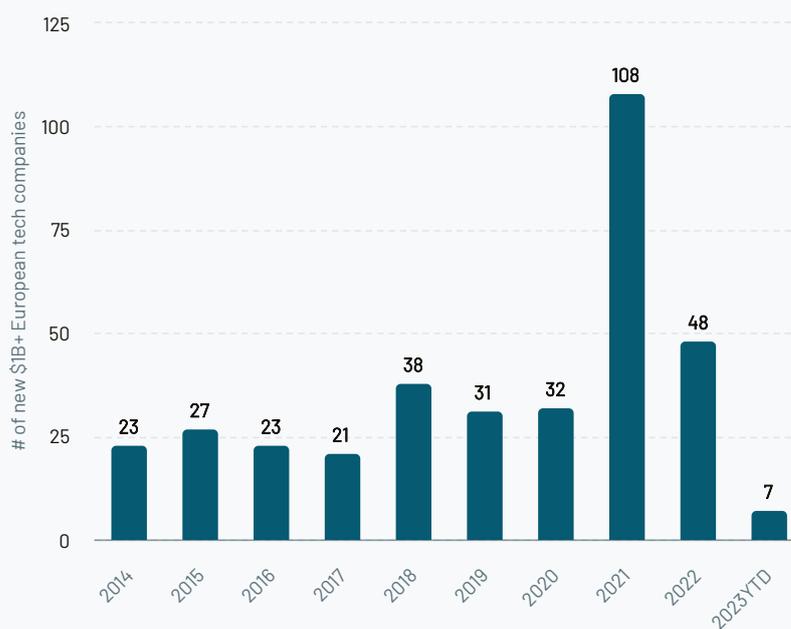
Tough times for Europe's billion-dollar companies

Predictably, a reduction in growth stage funding round volume and a major reset in the valuation environment has led to a huge drop in the number of companies surpassing the billion-dollar valuation milestone for the first time in 2023.

2023 is on track to see the lowest number of new \$B+ companies emerge from Europe in the last decade, with just seven as of the publication deadline at the end of October 2023. This is, of course, in stark contrast to 2021's record-breaking total when 108 new companies hit a billion-dollar valuation.

In last year's report we first introduced the concept of de-horned unicorns, \$B+ companies whose valuation has dropped below this milestone since first hitting it. In 2022, we mapped 58 dehorned unicorns. This year, that number has reduced slightly, with 50, meaning some companies have seen their valuation lifted back up above the billion-dollar level in 2023. For clarity, when referring to \$B+ companies, we have in mind tech companies that command that valuation today.

Number of new \$1B+ European tech companies by year, 2014 to 2023YTD



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico**

Many \$B+ companies yet to raise amidst new market reality

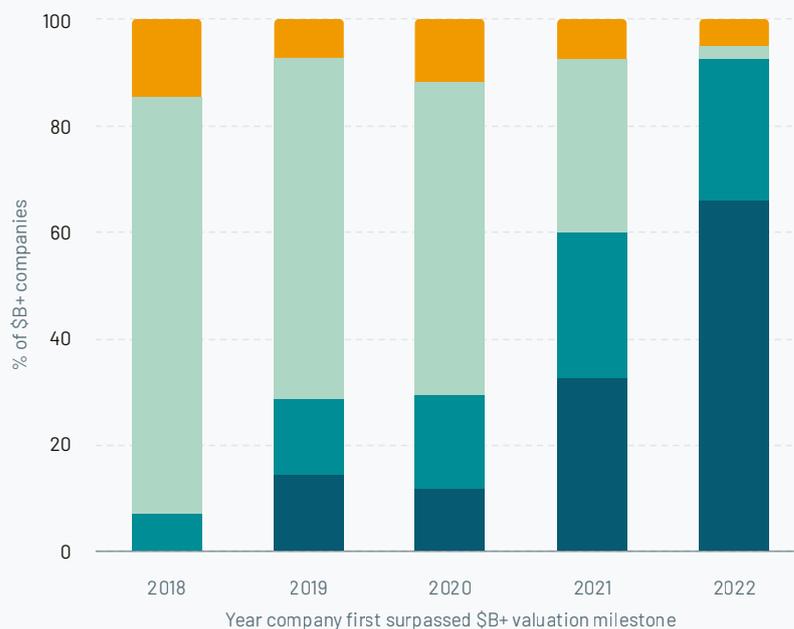
Over the five-year period between 2018 and 2022, a total of 257 European tech companies first surpassed the milestone of reaching a billion-dollar valuation, including more than 150 in 2021 and 2022 alone during the most heated period of the market.

This chart seeks to explore the extent to which these valuations have endured as this cohort of companies has gone on to raise subsequent rounds of investment since first achieving a billion-dollar valuation and, if they have, whether those rounds were raised at higher or lower valuations. Of course, this analysis is limited to publicly-disclosed data, but is still directionally helpful to understand the trend.

As is clearly visible in the data, a large number of billion-dollar companies - particularly those that first surpassed the milestone in 2021 or 2022 - have yet to disclose additional funding rounds. While many companies may keep their valuations intact, it seems likely that there is still a meaningful number of others, particularly from the classes of 2021 and 2022, that may face a correction when next seeking to raise capital.

Distribution of \$B+ companies by year first surpassed \$B+ milestone and status of subsequent capital raises and valuation

- Disclosed an additional capital raise at a lower valuation
- Disclosed an additional capital raise at a higher valuation
- Disclosed an additional capital raise, but valuation not disclosed
- No additional capital raise or valuation has been disclosed



Sources: **atomico**

Notes:
Data is as of 31 October 2023.

Founders having to adjust expectations

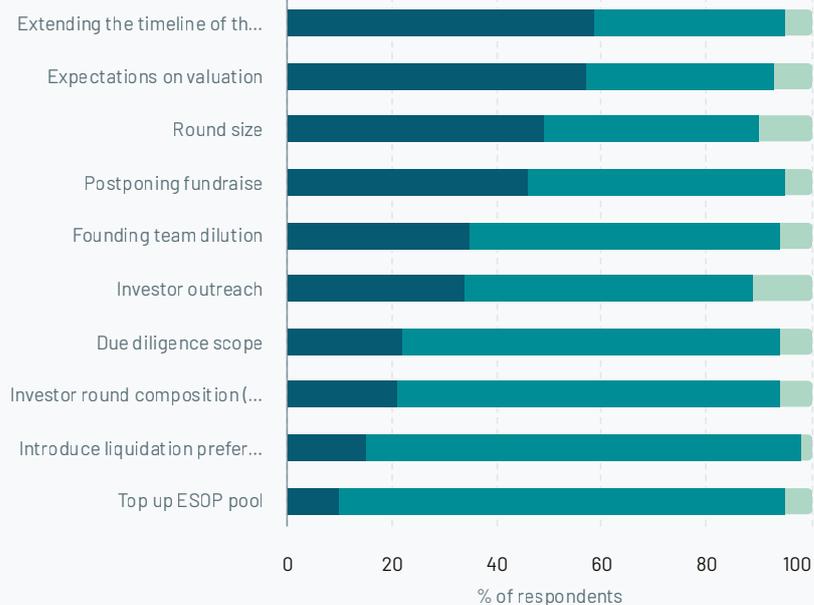
In this year's survey, we asked founders to share their specific experiences in attempting to raise their most recent rounds of investment.

The responses make for tough reading. The vast majority of founders highlighted the impact of challenging fundraising conditions on most aspects of their process. The most notable impacts cited were extended process timelines, the need to adjust valuation expectations down, and having to reduce round sizes or take more dilution than hoped.

That being said, there's always a small number of founders and companies that are able to successfully navigate challenging market conditions to negotiate with potential investors and command more favourable terms.

In which areas (if any) did you have to make changes over the course of your most recent fundraising, were these favourable or unfavourable?

- Favourable change
- No change
- Unfavourable change



Notes:
 Founder respondents only.
 Respondents who selected "No change / Not applicable" are excluded from the data.

Sources: **STATE OF EUROPEAN TECH** Survey



Building the company for the long-term and focusing on things within our control is key.

Oskari Saarenmaa
Co-Founder & CEO, Aiven

Aiven, like many growth companies, secured funding during favorable market conditions. Now everyone's focus is on product, customers and execution. Once markets regain momentum, we'll be in a great position. As economist and investor Benjamin Graham put it: "In the short run, the market is a voting machine but in the long run, it is a weighing machine."

Average time between rounds is not yet extending

While there has been much discussion about a potential extension of the average time between investment rounds as founders seek to delay returning to the market to raise additional capital, this hypothesis is yet to be reflected in publicly-disclosed data.

This is likely due to the fact that companies that have had to elongate the time between their funding rounds have yet to come back to the market to raise capital in sufficient volume to impact the overall numbers. The companies that have had difficulty closing new rounds of investment or are simply waiting things out are, of course, not captured in the data.

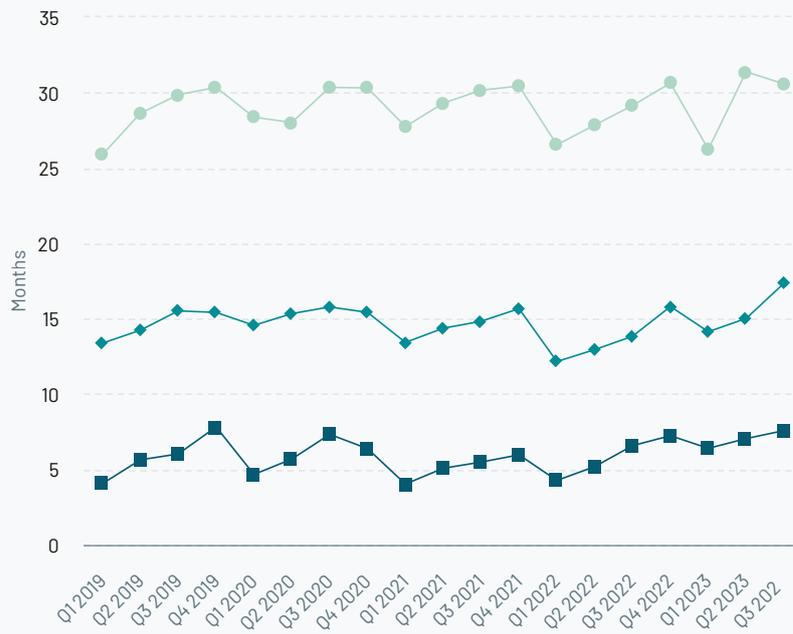
As of Q3 2023, the median time between rounds for growth stage companies has remained largely unchanged throughout the five-year reporting period, clocking in at an average of 23 months between consecutive rounds.

For early stage companies, meanwhile, only a slight uptick in the median interval between investment rounds is visible in the data.

Time between rounds by quarter and stage, 2019 to 2023

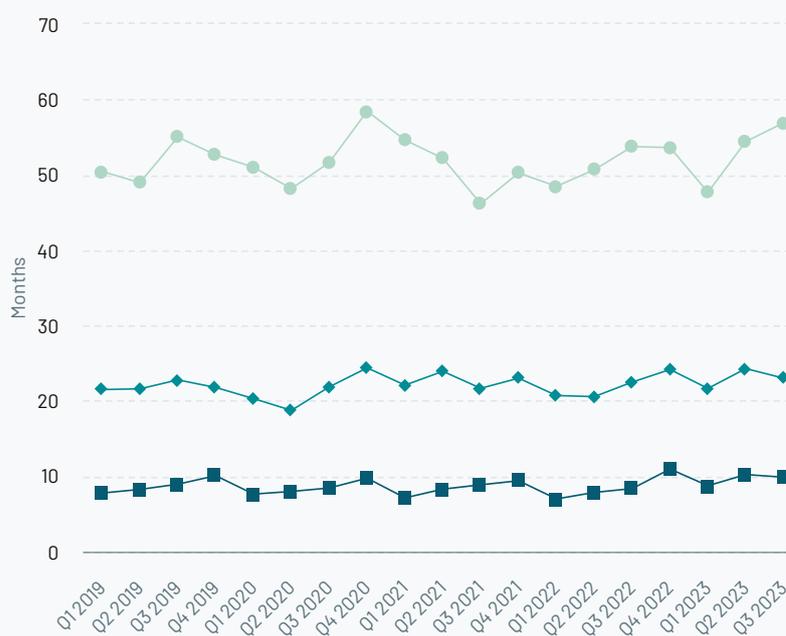
- Slowest decile
- Median
- Fastest decile

Early stage



- Slowest decile
- Median
- Fastest decile

Growth stage



Notes:
Data is as of 30
September 2023.

Sources: PitchBook

Continuation of upward trend in bridge rounds in 2023

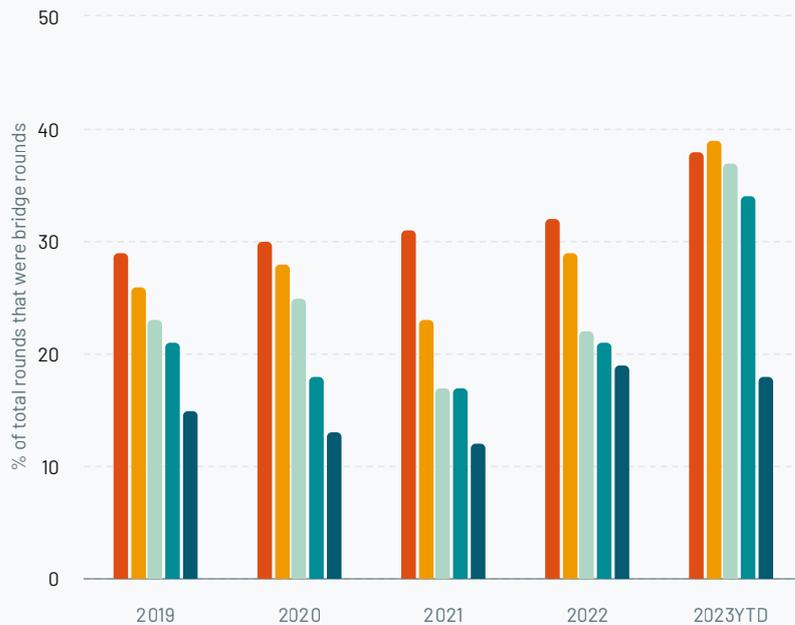
In last year's State of European Tech report, a clear uptick in bridge rounds was already becoming evident by Q2 2022. Today, that uptick has developed into a clear trend, with 2023 seeing the highest share of bridge rounds across all stages globally since 2019.

Bridge rounds are more common at the earliest stages of a startup's fundraising journey, when they serve to buy more time to find product-market fit. This is also reflected in the data, with Seed stage (38%) and Series A (39%) seeing the highest share of extension rounds in 2023, as well as in previous years.

The relatively high share of bridge rounds in the later stages underscores uncertainty in the market, as founders look to reinforce balance sheets and boost cash runways.

Share of rounds that were bridge rounds by stage, 2019 to 2023YTD

- Seed
- Series A
- Series B
- Series C
- Series D



Notes:
Data is as of 31 October 2023. Based on global data.

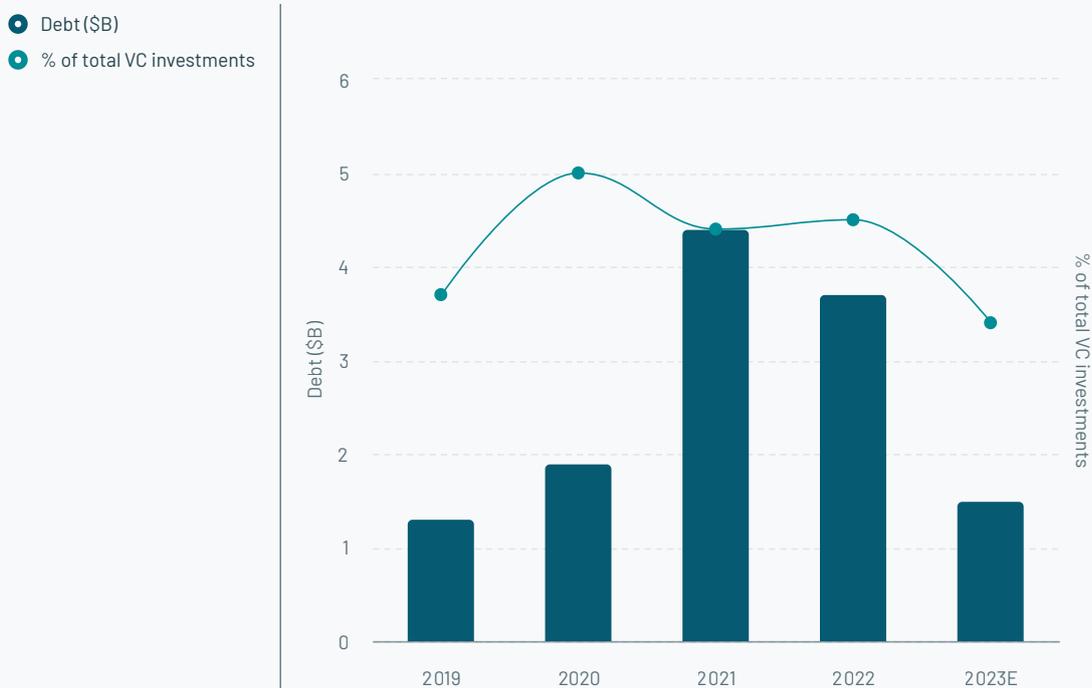
Sources:

Debt financing volume mirrors equity

While the levels of venture debt funding have come down in absolute terms from the highs of 2021 and 2022, the decline in volumes is broadly aligned with overall equity investment volume trends in Europe over the same period.

In absolute terms, total debt financing raised by European tech companies is projected to reach around \$1.5B in 2023, equating to around 3.4% of the total capital invested as equity over the same period. This marks a fall the peak of \$4.4B in debt financing raised in 2021, but remains broadly in line with amounts raised in 2019 or 2020.

Debt financing (\$B) and share of total VC investments (%) by year, 2019 to 2023



All Dealroom.co data excludes Israel and the following: biotech, secondary transactions, debt, lending capital, and grants. Data as of 30 September 2023.

Sources:  dealroom.co



Soft equity markets have prompted companies to reassess their operational strategies. With diminished access to capital, many founders have turned to raising debt facilities to support their balance sheets.

Sonya Iovieno

Head of Venture and Growth Banking,
HSBC Innovation Banking UK

Firms have honed their focus on operational efficiencies and driving towards profitability. The imperative to do more with less has spurred boards to slim their top-line spend, reduce headcount where it is less impactful to RoI and become more innovative around workforce optimisation. At the same time, growth is still important and investing in the levers that deliver efficient growth, remains key to driving enterprise value. Put simply, each additional dollar of spend should account for incremental RoI. In essence, the challenging equity landscape has compelled innovation companies to streamline, innovate and strategically reposition themselves to thrive in an evolving financial environment.

Smaller rounds extending runway

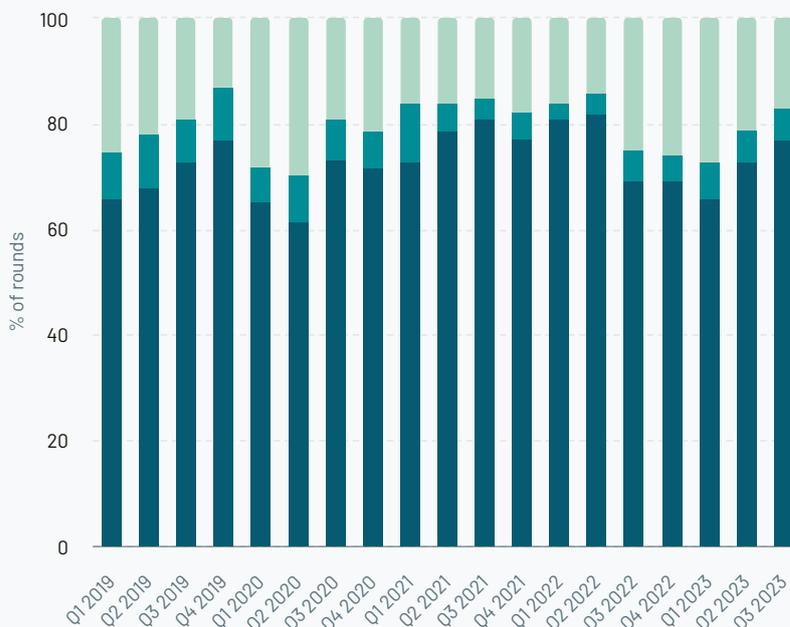
A further impact of changing fundraising conditions is evident in the number of companies raising larger subsequent funding rounds. During the height of market in terms of capital availability in 2021, the share of rounds raised that were larger than prior rounds (up rounds) hit record highs.

For example, in the first half of 2022, before conditions in Europe shifted, more than 80% of all rounds raised by companies were at least 10% higher than the round of investment immediately-prior. By Q1 2023, this had fallen to just 65% of rounds, while in that same quarterly period, 27% of all rounds raised were actually at least 10% smaller than the preceding round.

This is not surprising given the change in capital availability and the cost of capital, which has meant that founders and companies have had to become increasingly open to raising smaller rounds - sometimes at lower valuations - even if those rounds don't provide the same cushion in terms of cash balance and runway that became commonplace during 2021 and 2022, when external capital was more readily available. By Q3 2023, the share of larger rounds was up at 77% again, but it is still too early to tell if this reversal is here to stay.

Distribution of rounds per quarter based on size of round relative to prior funding round, 2019 to 2023

- No (>10% smaller than prior round)
- Stable (within +/- 10% of prior round)
- Yes (>10% larger than prior round)



Notes:

Data is as of 30 September 2023. Stable is defined as a $\pm 10\%$ change. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Minimum Series A rounds.

Sources: **atomico** Powered by



dealroom.co

crunchbase

Round sizes realign with historical averages

Unsurprisingly, capital investment volumes are also being shaped by changes in round sizes, and not just the absolute count of rounds taking place. At the later stage, following a reduction in the latter half of 2022, there are now observable signs of stabilisation in round size over the course of the past four quarters. As a consequence, round sizes are back in line with the longer-term, 5-10 year averages for the growth stages.

The trend at the earlier stages, however, is somewhat different. At Seed and Series A, median round sizes have also seen a period of stabilisation following rapid increases during 2020 and 2021, but remain elevated at levels significantly above 5-10 year averages.

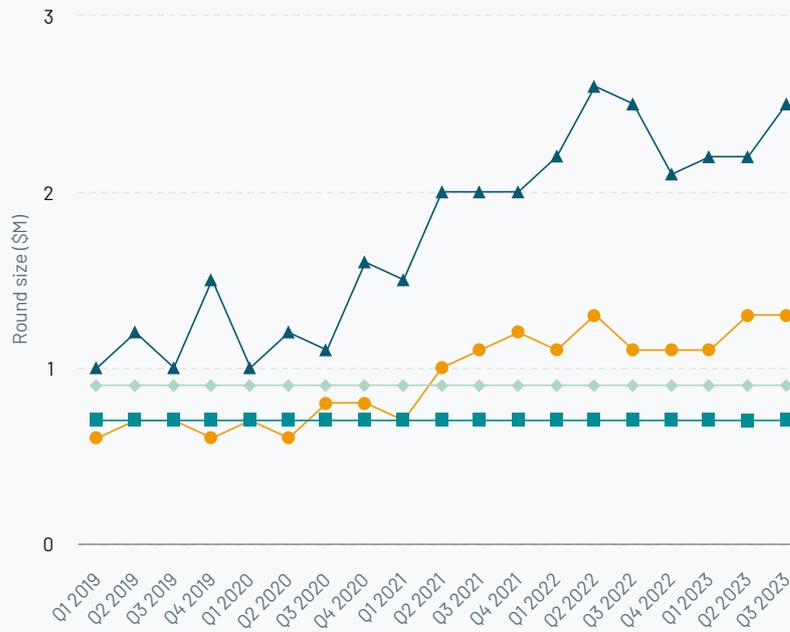
For growth stage founders in particular, this inevitably translates to having to achieve more with less capital for an extended period of time, despite the ongoing inflationary pressures on wages that are keeping talent costs elevated.

The same trends are playing out across the ocean, where US Seed stage companies raise significantly larger rounds - roughly twice as large as their European counterparts. This delta starts narrowing as companies mature, disappearing by Series C.

Round size (\$M) per quarter by stage, 2019 to 2023

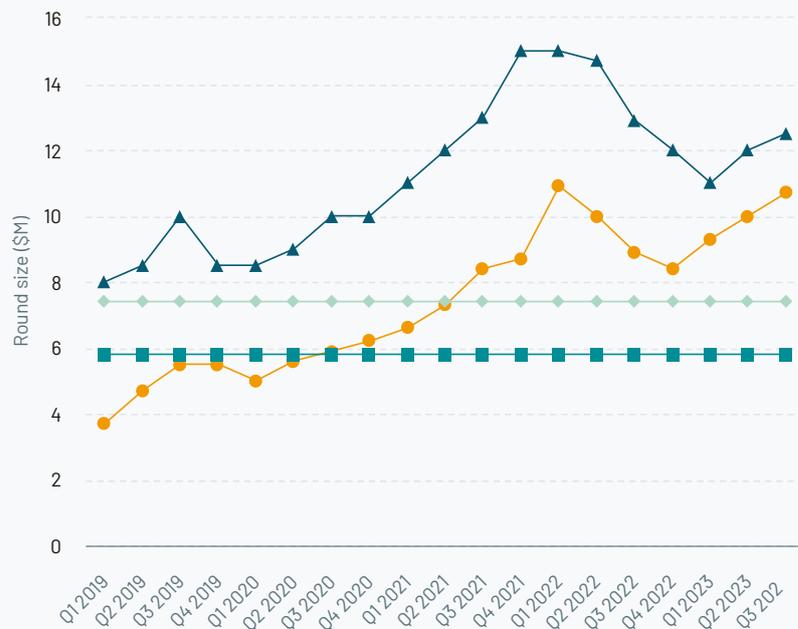
- Median
- Last 5 years average
- Last 10 years average
- US Median

Seed



- Median
- Last 5 years average
- Last 10 years average
- US Median

Series A



Notes:
Data is as of 30 September 2023.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

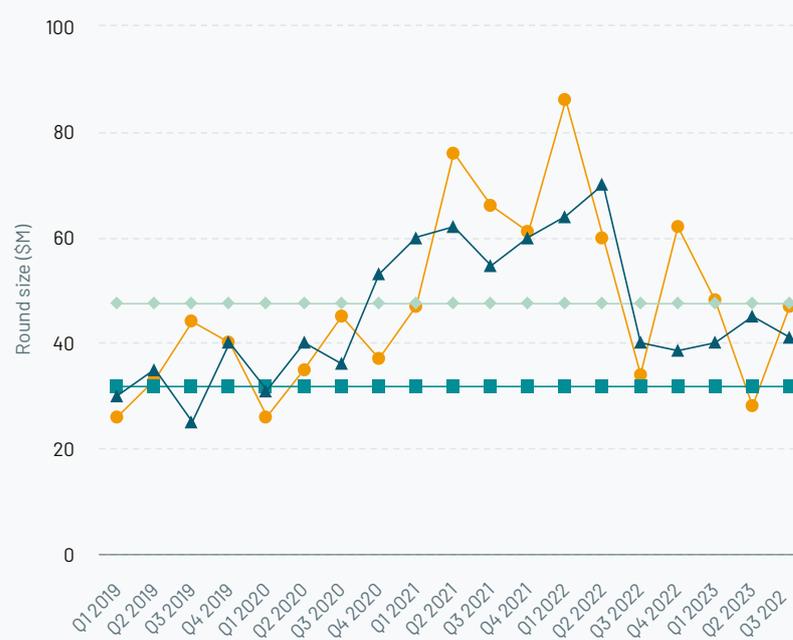
- Median
- Last 5 years average
- Last 10 years average
- US Median

Series B



- Median
- Last 5 years average
- Last 10 years average
- US Median

Series C



Notes:
Data is as of 30
September 2023.

Sources: **atomico** Powered by



dealroom.co

crunchbase



What's difficult for a business leader to see is that your company's valuation isn't the be all and end all, this is always going to fluctuate and the pressures surrounding that will always exist.

Vishal Marria
Founder & CEO, Quantexa

Raising cash is important. But to do so, you have to be prepared to walk away. What I mean by this is, as the entrepreneur, own the process, and don't fall foul of investors trying to own that process. So, as you enter your Series A, B, C, D or E fundraise, think about what the optimum pack looks like. Remind yourself of your vision, the data you have, the product you have, how you stack up against the competition, and run with it. Ensure you have clear milestones and dates in mind. Or it'll be easy to keep delaying things. And it'll be easy to lose control. It's also important to think about who is involved in these funding rounds – and how you work with them to strategically support your organisation on its growth journey. You all need to be working towards the same vision and the same end goal. But, the biggest piece of advice that I can give to any entrepreneur is that great conversations, are just great conversations. Remember, the signed term sheet is what counts. That's a sign of something real. And it'll help you to set expectations with both parties.

Down rounds increasing, but remain in minority

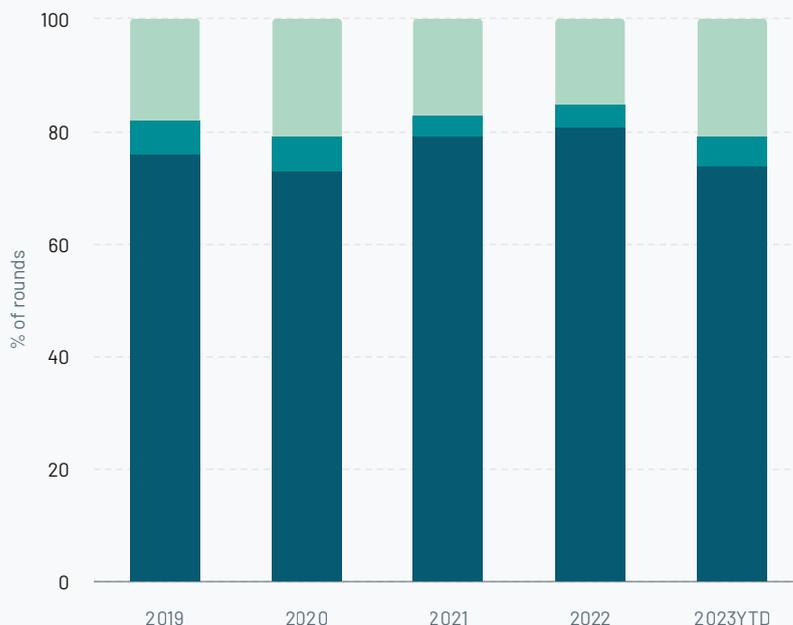
While down rounds have captured a large share of industry attention, the market reality captured in the data is that the vast majority of new rounds of investment raised in 2023 (74%) were completed at valuations that were higher than that of the preceding round.

In fact, despite a notable increase in the share of new rounds of investment raised at lower valuations to a company's prior round in 2023, these still remain in the minority, comprising 21% of all rounds this year.

Looking ahead to 2024, it is likely that this increased prevalence of down rounds will continue to be a characteristic of fundraising conditions, as more companies are forced to go back to market to raise capital and test valuations that haven't recalibrated since the change in market conditions.

Distribution of rounds per year based on change in pre-money valuation compared to prior round, 2019 to 2023

- Down (>10% smaller than prior valuation)
- Flat (within +/- 10% of prior round)
- Up (>10% larger than prior valuation)



Notes:
Data is as of 30 September 2023. Flat is defined as a \pm 10% change. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: PitchBook

Valuations back at 5- and 10-year averages

Reflecting the multiple compression of the public markets, valuations in the private sphere are also returning to normalised pricing levels, once again framing 2021 as an exceptional year.

Valuations across stages in Europe are now hovering around 5- and 10-year long-term averages. The notable stage exception is Seed, where despite a levelling off of median Seed pre-money valuations in 2023, there has not yet been a correction to long-term pricing averages in the same way that has been evident at every stage from Series A and later.

This shift back toward longer-term averages in Europe mirrors what is happening in the US. Notably, however, median valuations in Europe continue to be 30-60% lower than in the US across all stages.

Median pre-money valuation (\$M) by stage, 2014 to 2023

- Europe median
- Europe 5-year median
- Europe 10-year median
- US median

Seed



- Europe median
- Europe 5-year median
- Europe 10-year median
- US median

Series A



Notes:
Data is as of 30 September 2023.
Excluded biotech & pharma firms.

Sources: PitchBook

- Europe median
- Europe 5-year median
- Europe 10-year median
- US median

Series B



- Europe median
- Europe 5-year median
- Europe 10-year median
- US median

Series C



Notes:
Data is as of 30 September 2023. Excluded biotech & pharma firms.

Sources: PitchBook

Investors back in the game

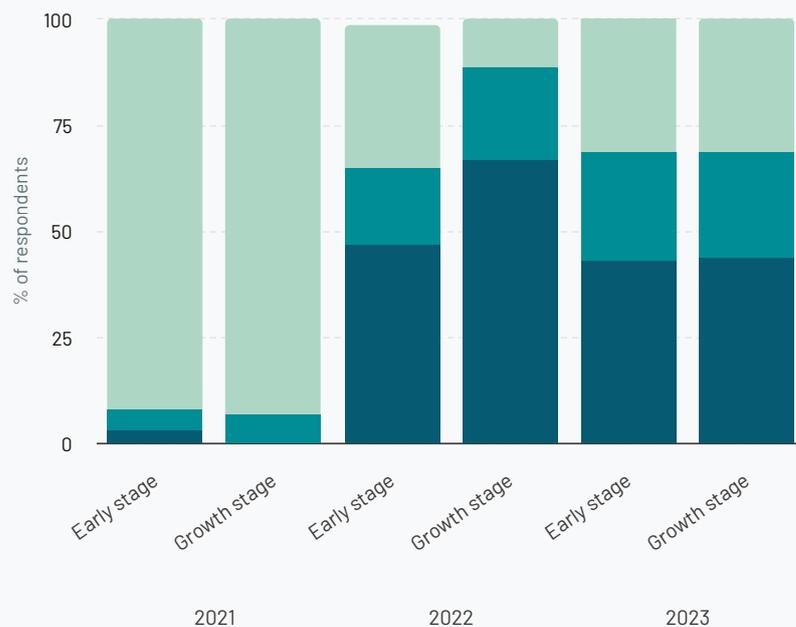
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Bridge rounds are more common at the earliest stages of a startup's fundraising journey, when they serve to buy more time to find product-market fit. This is also reflected in the data, with Seed stage (38%) and Series A (39%) seeing the highest share of extension rounds in 2023, as well as in previous years.

The relatively high share of bridge rounds in the later stages underscores uncertainty in the market, as founders look to reinforce balance sheets and boost cash runways.

To what extent do you think investment opportunities at your stage of entry have become more or less competitive over the past 12 months?

- More
- No change
- Less



Sources: **STATE OF EUROPEAN TECH** Survey

Notes:
VC respondents only.
Numbers may not add up to 100 due to rounding.



2023 was a challenging year for many in private capital. While the market remains uncertain, sentiment is shifting. The State of European Tech 2023 points to green shoots of recovery while acknowledging this is a critical moment.

Ray Zhou

Co-Founder & Co-CEO, Affinity

Our research reveals a similar story: 87% of European dealmakers foresee doing the same or more deals in 2024, but each deal requires 10 more hours of research than a year ago. It's a time of cautious optimism.

Securing access to capital and customers

As in previous years, we asked founders to share their biggest commercial, operational, and financial challenges, both looking back over the past 12 months and looking forward to the year ahead.

Looking back over the past 12 months, the top three most frequently cited challenges highlighted by founders were: securing access to capital (38% of founder respondents), securing new customers (37%), and managing longer sales conversion cycles (30%). Other frequently-cited challenges over the past year included finding product-market fit, building repeatable sales processes and managing cash burn.

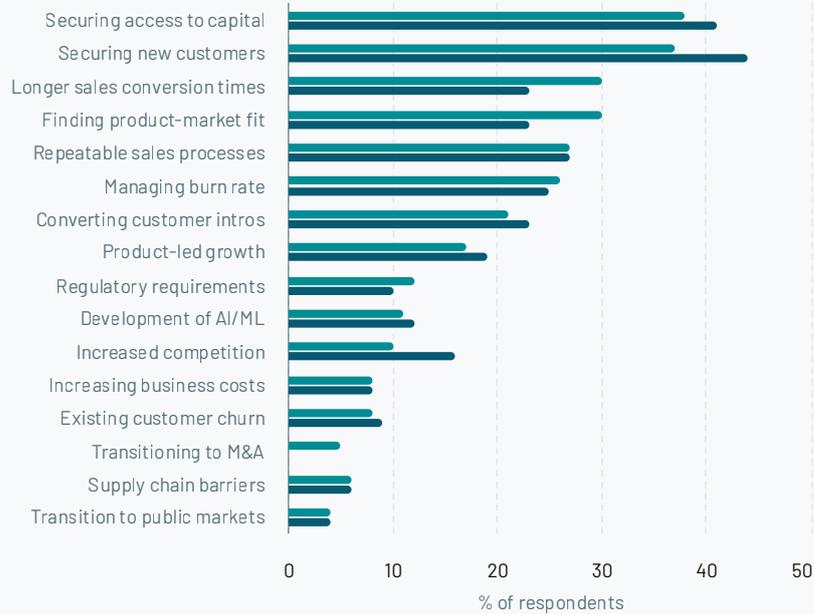
Looking to the year ahead, most founders cited a similar set of expected challenges, led by securing new customers (44% of founder respondents), securing access to capital (41%), and building repeatable sales processes (27%).

By stage, founders of Seed stage companies are relatively more concerned with securing access to capital in the next year (+10% compared to overall) while Series A founders have burn rates on their mind (+16%). As is to be expected, founders at Series B stage and beyond aren't worried so much about finding product-market fit, but are most focused on minimising existing customer churn instead.

Turning the page over to founder demographic, women founders are relatively less worried about managing burn rates, mostly as a function of a high concentration of women founders in Angel and pre-Seed funded companies where companies are still in the early stages of product development.

What do you anticipate to be your company's biggest commercial, operational, and financial challenges?

- Past 12 months
- Next 12 months



Sources: **STATE OF EUROPEAN TECH** Survey

Notes:
Founder respondents only.

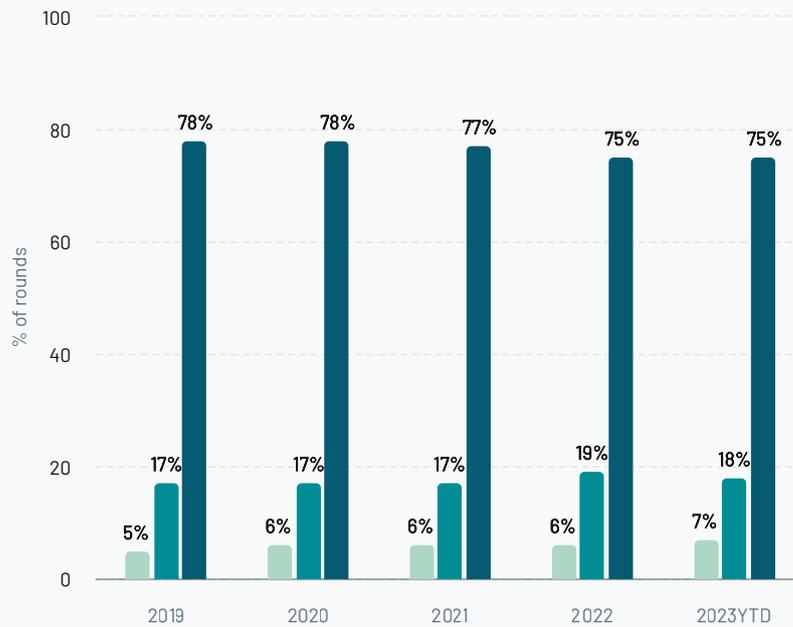
Share of funding going to mixed teams remains unchanged

The share of capital investment and rounds raised by women continues to see very slow progress. In 2023, just 7% of rounds raised were captured by all-women founding teams, up just two percentage points over the past five years. Similarly, just 18% of rounds raised this year to date were captured by companies with at least one woman founder or co-founder. This share has increased by only a single percentage point over a five-year period. This means that 75% of all rounds raised this year went to all-men founding teams.

In absolute terms, the numbers are even less positive. In 2023, all-women founding teams raised just 3% of all dollars invested in the year, with mixed gender founding teams taking 15%, leaving 82% of dollars to flow to founding teams that are all men. This number has increased by a single percentage point since 2019.

Share of capital raised (%) and share of rounds (%) by founding team gender composition, 2019 to 2023

- Women
- Mixed
- Men



Sources: **atomico** Powered by **dealroom.co**
crunchbase **revelio labs**

Notes:
 Data is as of 20 September 2023.



In recent years, there has been a growing emphasis on investing in underrepresented founders within the venture capital ecosystem, highlighting diversity as not just a moral imperative but also a strategic business advantage.

Ladi Greenstreet
CEO, Diversity VC

However, despite achieving record levels of investment in underrepresented founders in 2020, it remains a fraction of what is invested in white, cisgender men. Recent trends and discussions point to a troubling trend: a reduction in funding to these diverse groups, reflecting a persistent perception that they are riskier investments. Despite efforts to change these perceptions, the industry often reverts to traditional investment models during economic downturns. The Atomico First Look data report illustrates this setback, showing a decrease in the percentage of overall investment allocated to female founders compared to the previous year. This regression underscores a reluctance to embrace the undeniable economic wisdom that diversity in leadership leads to better business performance. We had hoped for a more solid transition from rhetoric to action, considering the long-term nature of venture capital investments. Unfortunately, the shift towards recognizing the tangible returns of diversity has been hampered by economic and political turbulence. This setback not only impedes progress but also fuels arguments from detractors who claim that diversity initiatives fail to deliver a return on investment or, worse, result in negative consequences due to flawed execution. This situation is particularly disheartening when we observe the widespread recognition of diversity's value in other sectors such as media, sports, entertainment, and financial services, where diversification is a well-established strategy. It is puzzling why the venture capital industry would deviate from this proven approach. The recent reduction in funding for diverse founders represents a regressive step that contradicts the well-documented benefits of diversity. It is crucial for the venture capital industry to resist the temptation to default to what may seem like 'safe' patterns and instead acknowledge the long-term value that diverse founders bring to the table.

Some progress, but needle not moving perceptively on funding for women-led companies

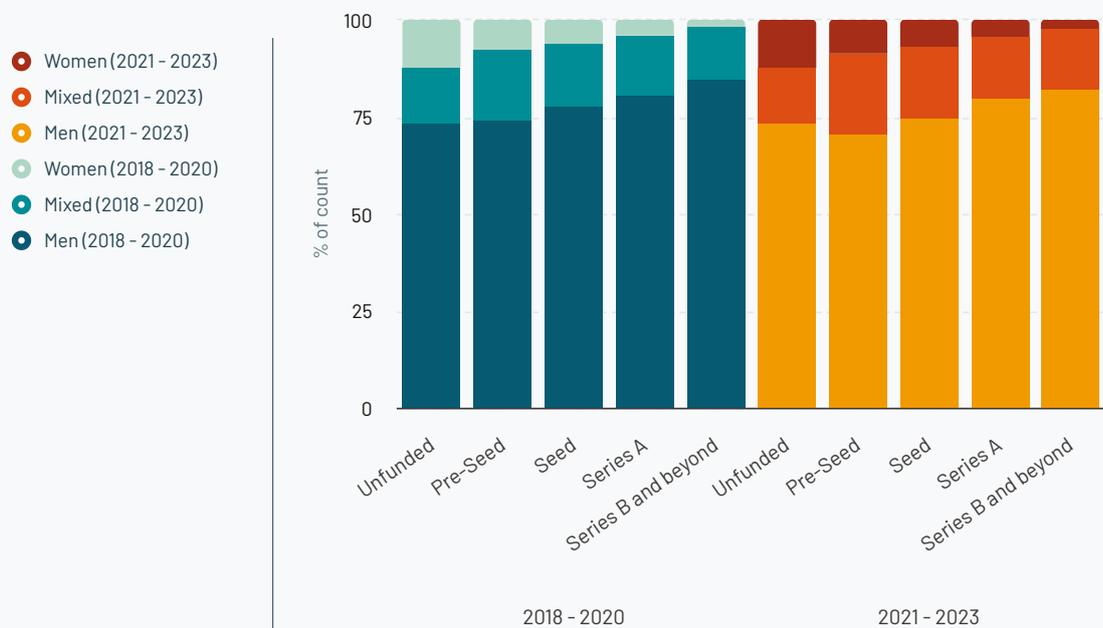
The funnel of women and mixed founding teams is healthiest at pre-Seed stage, with 8% of funding rounds going to women-led and 21% to mixed teams when looking at companies that raised funding between 2021 and 2023. The equivalent shares start shrinking quickly when looking at the next stages of fundraising.

While there has been some minor progress compared to companies that raised the three years before, where woman-only teams captured only 1.7% of Series B-plus funding, it has been incredibly slow paced.

The small share of funding going to women-only teams is a clear sign that male and female founders are not held to the same expectations. Were both subject to equal opportunities, the share of funding by team gender mix would be more evenly distributed across all levels of company maturity.

Interestingly, mixed gender founding teams are punching significantly above their weight both in funding captured as well as by round volume. 15% of all startups founded had mixed teams in the last three years, yet they captured 6 percentage points more (21%) of the total pre-seed stage count, with the delta levelling out only by Series B and beyond.

Share of round count (%) and share of capital invested (%) by founding team gender composition, 2018 to 2023



Notes:
Data is as of 20 September 2023.

Sources: **atomico** Powered by **dealroom.co**
crunchbase **revelio labs**

VC leadership is male-dominated

Gender diversity issues prevail also at the funding, or venture capital firm, level. When looking at the gender mix of General Partners (GPs), the most senior decision-makers in a venture firm, women make up a small minority.

Studies have shown that women VCs are more likely to allocate capital to women-led teams. Hence, an increase in women GPs might ultimately have a positive impact on the share of funding going to mixed and women-only founding teams.

GPs themselves do not shine in gender diversity

16%

of GPs are female

Source  European Women in VC

Founders are looking for alignment on vision

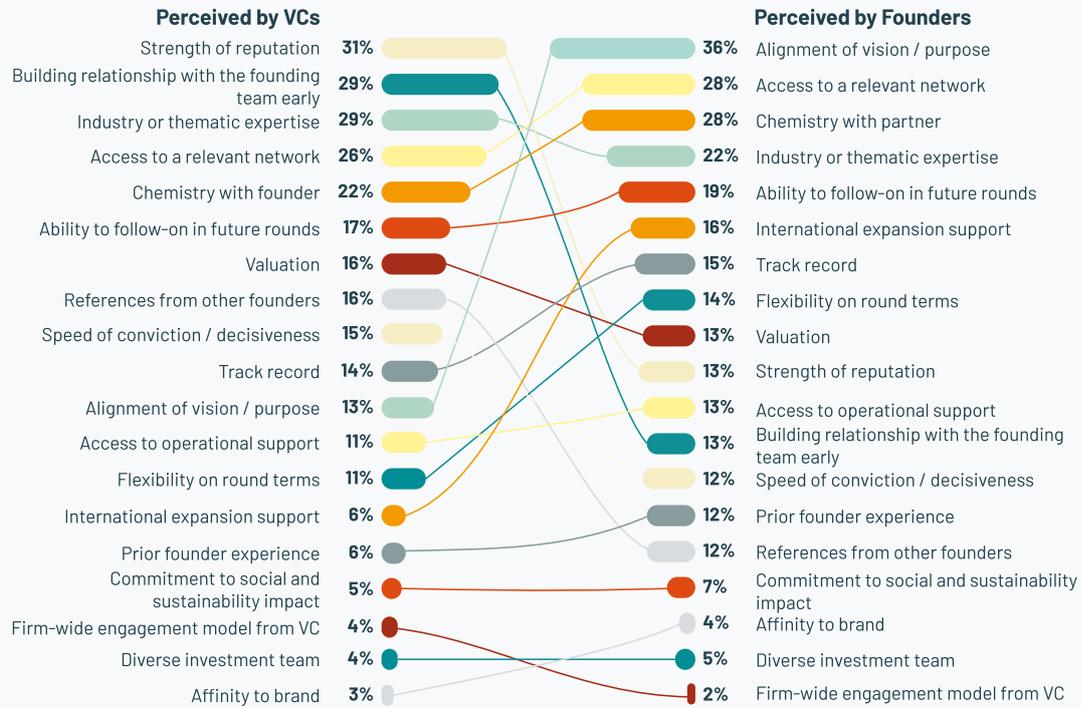
When asked the same simple question - what do founders really want from their VCs - the answers from founders and VCs are surprisingly divergent.

While VC respondents are most likely to cite the strength of reputation of an investor (the top ranked answer selected by 31% of VC respondents), this features way down the list of priorities for founders (13% of founder respondents).

For founders, what matters is finding a VC that truly 'gets them' - shared alignment of vision/purpose is by far the most cited response (36%). Access to relevant networks, as well the importance of having chemistry with the investor partner, are next most-often cited (28% of founders).

What is also interesting is just how low down the priority list certain oft-discussed considerations rank for both founders and VCs, such as the diversity of the investment team, prior founder experience, and brand affinity.

**What are the most important considerations when selecting an investor to lead your next round?
Over the past 12 months, and thinking generally about the market, what in your opinion have been
the most decisive factors to win a competitive deal situation?**



Notes:
Founder and VC respondents only. Respondents who selected "other" are excluded from data. Number do not add to 100 as respondents could choose multiple options.

Sources: **STATE OF EUROPEAN TECH** Survey



Apart from the necessary capital, founders of newer companies look at VCs who can commercially enable their growth. For example, VCs with a significant network in the founders' target industries are invaluable in championing and promoting the solutions of their portfolio companies.

Oana Jinga

Co-Founder & CCO, Dexory

This coupled with strategic guidance as well as concrete go-to-market and operational experience can really unlock exponential growth. Last but foremost, founders tend to choose VCs who align to their companies' vision but could be flexible enough to assist them in pivots should changing market conditions dictate. The key is choosing VCs who align with a company's values and vision. A strong, collaborative relationship with VCs is vital for successfully managing the dynamic business landscape.

What founders really want?

In this year's survey, we asked founders what they wish their investors had done differently since they entered into partnership.

The asks are quite simple. Founders want a relationship that works, with close and more proactive engagement, and one built on clear communication, transparency and trust.

They also value a shared mindset of embracing risk, being decisive and thinking in the long-term.

Support in securing customers by proactively helping with business development also comes across as high on the wishlist. Beyond these things, access to a community for networking and mentorship, as well as securing access to capital also featured frequently in founder feedback.

What is the one thing you wish your investors did differently since the start of the partnership?



Notes:
 Founder and C-level respondents only. Based on a sentiment of survey respondents free text answers.

Sources: **STATE OF EUROPEAN TECH** Survey

US startups benefit from greater access to capital

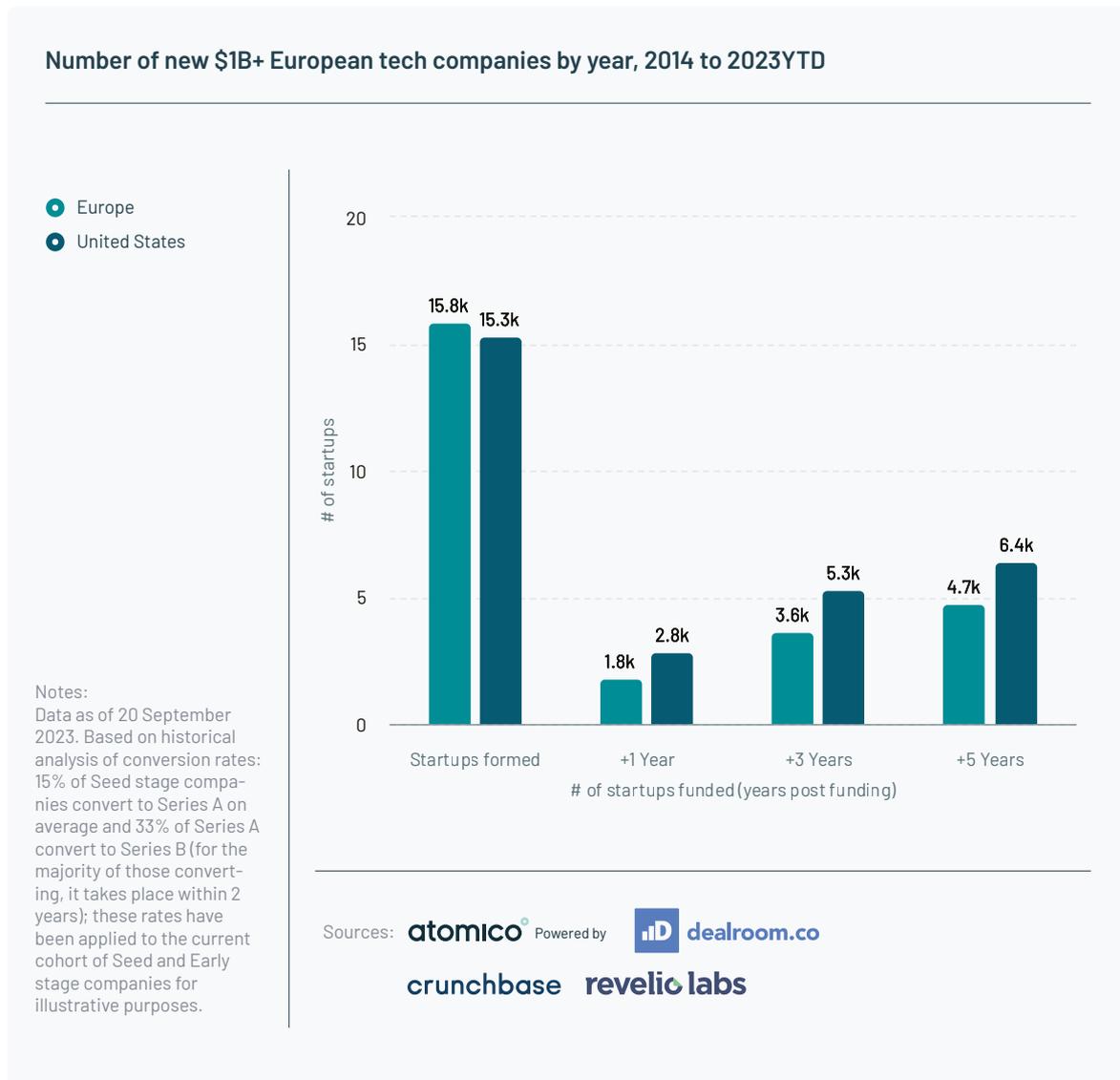
Europe is seeing more new tech startups being formed than any other region, supported by the strongest ever teams working on the most challenging and urgent problems. Europe has all the essential raw ingredients to become the next tech superpower. But for Europe to be able to shape the future of tech, the ecosystem needs to take further action to embrace the opportunity - and the risk that comes with it.

Europe's ability to fund and spur innovation has evolved considerably over the past decade. Nevertheless, a noticeable disparity with the US persists in terms of access to capital.

More European tech startups are formed each year, but over time, a growing gap emerges when it comes to their likelihood to secure external investment.

After five years, US tech startups are 40% more likely to have successfully secured venture capital funding. This is in spite of the fact that once companies secure an initial round of Seed investment, the probability of scaling to a billion-dollar valuation is the same in Europe as it is in the US.

This underlines the imperative for the European tech ecosystem to ensure that funding flows to European talent, giving them the firepower to compete globally and ensuring Europe can play a meaningful role in shaping the future.



Companies that collectively raised \$55B in their last rounds have yet to come back to market

To better understand what might lie ahead in 2024, and to get more of a sense of the expected volume of companies that will need to raise capital next year, we have looked historically at the companies that raised rounds in each year, and mapped out whether they went on to raise an additional round of investment.

Typically, 80% of companies that raised a funding round in any given year subsequently go on to raise another round of funding, whether those rounds are larger, flat, smaller, or of an undisclosed size.

Looking back at the rounds that were raised in the peak years of 2021 and 2022, there is clearly still a large overhang in terms of companies that have not yet raised subsequent rounds, at least as far as what's been

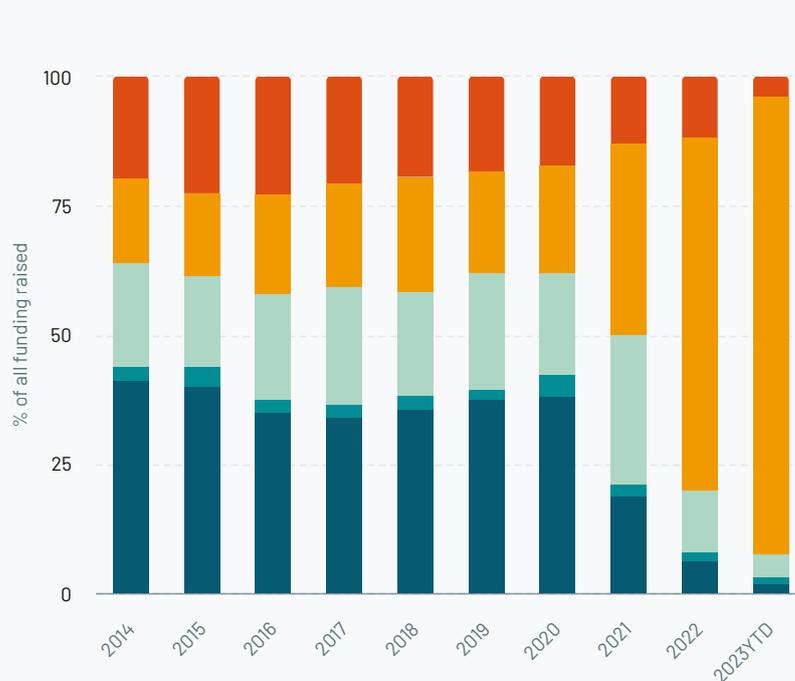
publicly disclosed. In absolute terms, based on public information, this equates to approximately \$55B of capital raised by companies in rounds that closed in 2021 and 2022 that should be expected to come back to market in 2024.

Also of note is the fact that a materially smaller proportion of subsequent rounds raised by the 2021 and 2022 cohorts of companies will result in larger rounds. For example, 64% of companies that raised a round in 2021 have so far raised a subsequent round. Of those subsequent rounds, just 30% have been larger than the prior one. For those companies that raised in 2022, just 18% of those subsequent rounds have been larger than a prior round raised in 2022.

The materiality of that shift is notable in that every other prior year, the equivalent number has typically been around 40% or higher.

Capital invested by subsequent round status, 2014 to 2023

- Next round - Undefined size
- Next round - No subsequent round
- Next round - Smaller (>10% smaller than prior round)
- Next round - Flat (within +/- 10% of prior round)
- Next round - Larger (>10% larger than prior round)



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

2.2

Countries

Key findings

The UK is losing its lead

By share of total capital invested in Europe per country, the UK has lost out the most over the last three years, while countries like France, the Netherlands, and Norway have gained.

Estonia remains a startup haven

The small but mighty Baltic state sees the highest number of funded startups per capita, and the most billion-dollar companies per capita.

Local capital is more important than ever

As international investors retreat, local investors must step up to the plate, underscoring the significance of building a consistent source of European capital across all stages, and especially later ones.

Slowdown visible across Europe

The slowdown of capital invested in private European tech companies is evident across the region, with significant year-on-year declines recorded in every major European country between 2022 and 2023.

The region-wide impact of slowing investments means that the ranking of Europe's largest countries are largely unchanged compared to last year. The UK retains its top spot with a projected \$12.7B of capital invested, followed by France (\$8.0B) and Germany (\$7.8B). This year, the Netherlands (\$2.1B projected) has risen back into the top five countries, displacing Switzerland (\$1.7B) to join Sweden (\$1.7B) to round out the top five countries by capital invested in 2023.

Only a small number of countries bucked this trend - Lithuania, Romania, and Luxembourg are the only countries to have recorded a year-on-year increase in total capital invested in 2023.

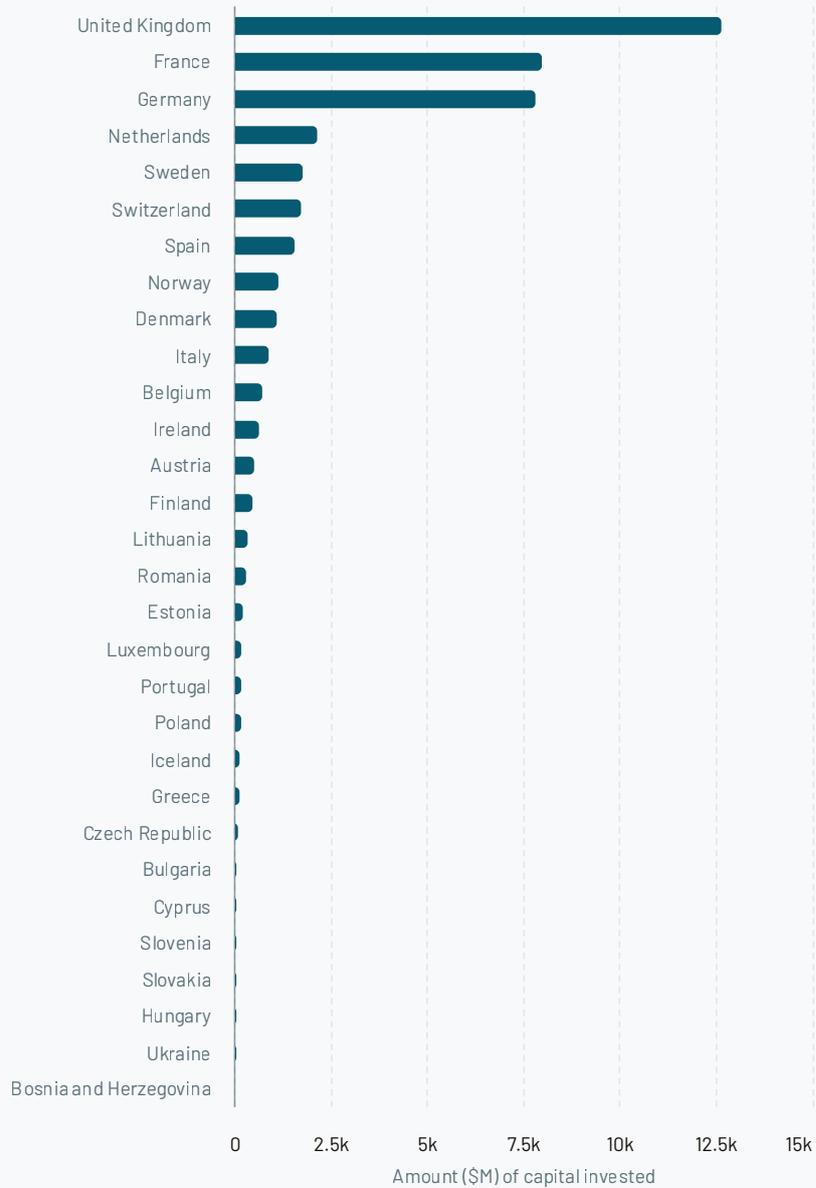


Let's start believing in ourselves. Europe possesses talent, innovation, and a legacy of groundbreaking innovations such as the World Wide Web and Linux. We must foster a culture that believes in the power of ideas and capabilities, promoting risk-taking and entrepreneurship.

Oskari Saarenmaa
CEO, Aiven

This confidence is not just about individual success—it's about cultivating a collective belief that Europe has the talent, creativity, and resilience to lead in the global tech arena. By instilling this confidence in ourselves, we will make investments, foster innovation, and create an environment where tech pioneers flourish. It's not just about competing; it's about embracing our unique strengths with confidence, paving the way for Europe to emerge as the next tech superpower.

Capital invested (\$M) by top 30 countries in 2023



Notes:
 Data is as of 30 September 2023.
 Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. 2023 figures extrapolated linearly based on year to date figures

Sources: **atomico** Powered by

dealroom.co **crunchbase**

An optimistic Europe

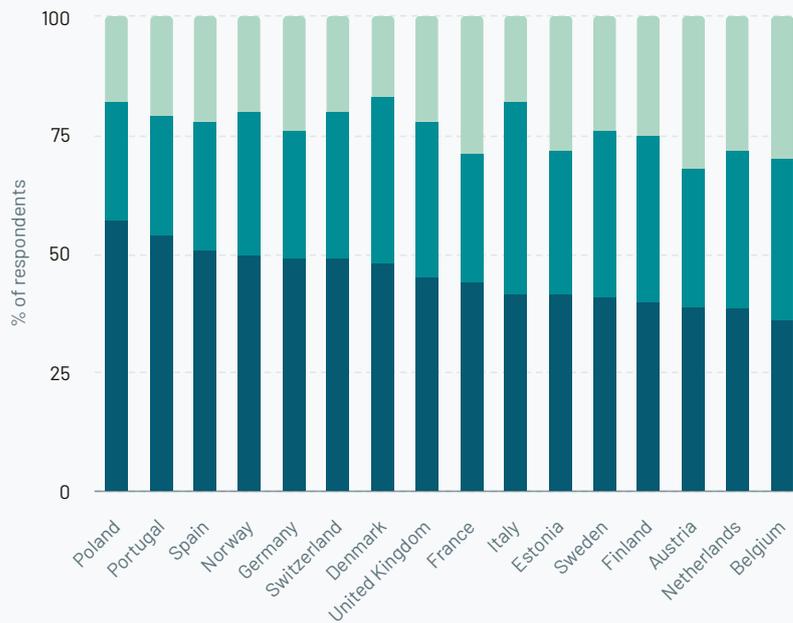
This year's survey reveals a largely positive shape to industry sentiment, with around half of respondents registering a more optimistic outlook for the future of European technology compared to 12 months ago. This is approximately double the share of respondents who reported a waning sense of optimism over the past year.

Looking at how sentiment compares across countries, the picture is broadly aligned. In every country, the share of respondents with a positive outlook far outweighs the share that reported a negative change over the past 12 months. Nevertheless, around a quarter of respondents in all countries do say they are now less optimistic compared to this time last year.

There are certain countries that stand out as particularly positive amongst survey respondents. 57% of respondents based in Poland are more positive about the future, the highest share of any individual country and a huge leap from last year. Similarly, 50% or more of respondents from Portugal, Spain, and Norway also reported improved sentiment over the past 12 months.

Compared to 12 months ago, are you more or less optimistic today about the future of European technology?

- Less
- Same
- More



Sources: **STATE OF EUROPEAN TECH** Survey

Notes:
Numbers may not add up to 100 due to rounding.



Norway's optimism in the tech sector is significantly boosted by its robust welfare system and focus on work-life balance.

Marit Rødevand
Co-Founder & CEO, Strise

Furthermore, the nation's oil-generated wealth has heightened awareness about the urgent need for energy transition, mobilizing both talent and resources toward sustainable tech solutions.

UK's lead eroding while the Netherlands leaps forward

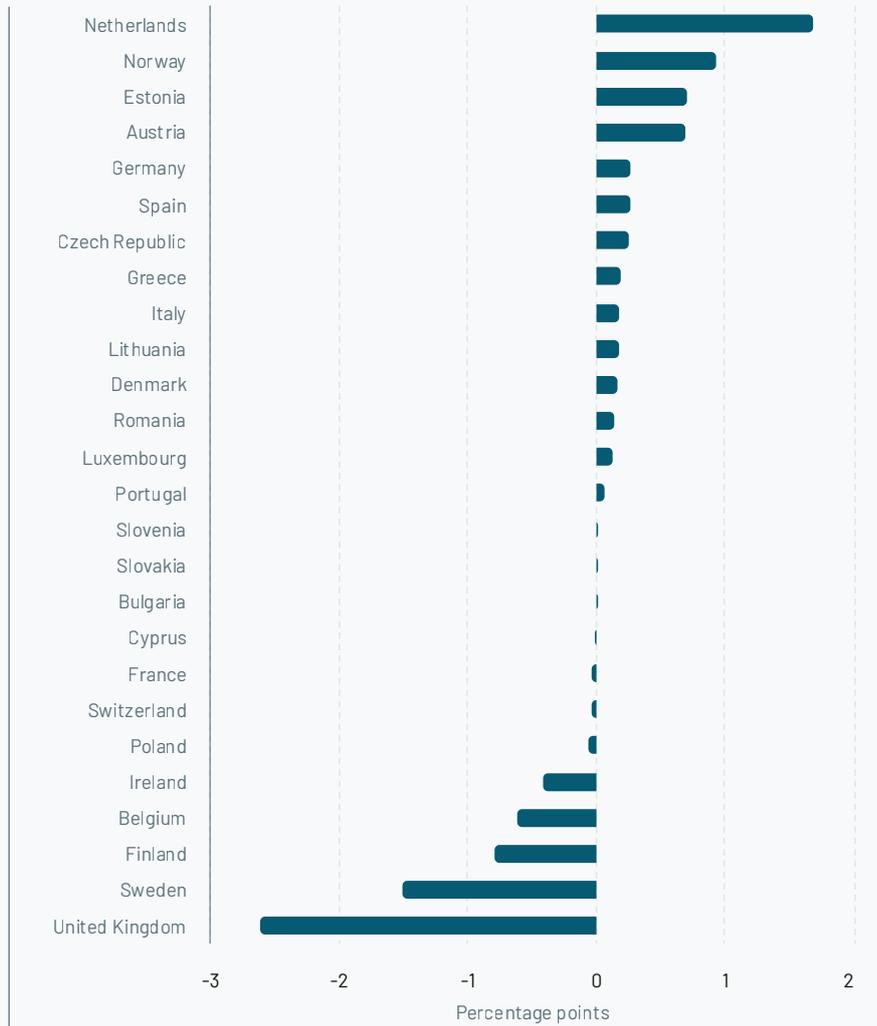
The emergence of flourishing local tech ecosystems across the region has been a key theme in the growth of European tech in recent years, with capital flows broadening and a shifting distribution in the share of total capital invested by country. So while the UK is - and continues to be - the largest hub in absolute terms, when it comes to capital invested, it has been gradually losing 'market share' on a European level.

This chart highlights the biggest gains and falls by country, as measured by a change in their share of total capital invested in Europe. To avoid over-indexing on a single year, this compares a country's share of total capital invested over the past three years (2021-2023) against the same country's share in the three preceding years (2018-2020).

On this basis, it's clear that the UK, Sweden, and Finland have seen the largest erosion of their relative share of European funding, while the Netherlands, Norway and Estonia are amongst the countries that have captured the biggest gains.

For interest, we have also included a straightforward comparison of the change in the distribution of capital invested by country in 2023 versus 2019. The risers and fallers look very similar across the two charts, though this perspective catapults France to the top of the 'gainers'. The UK remains the biggest net loser.

Percentage point change of the share of European capital invested, 2018-2020 versus 2021-2023



Notes:
 Data is as of 30 September 2023.
 Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. 2023 figures extrapolated linearly based on year to date figures.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

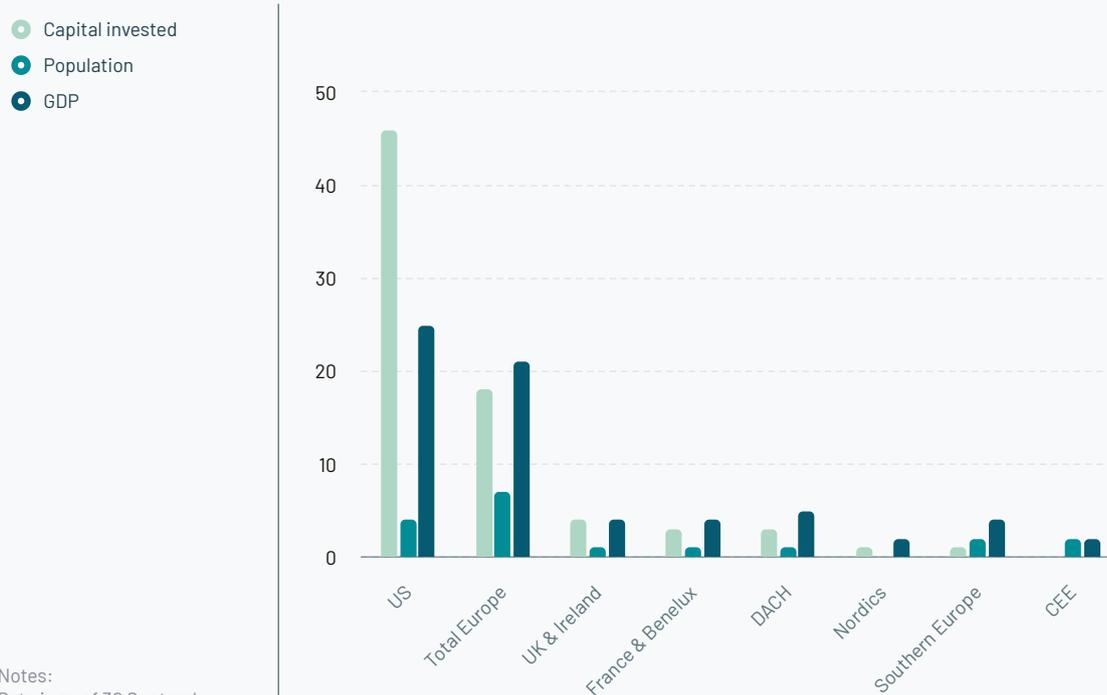
Closing the gap between European tech investment and GDP

On a GDP-adjusted basis, Europe continues to lag behind in terms of its share of total capital invested globally in technology. Europe, as defined by the 50 countries included in the State of European Tech report, accounts for 21% of global GDP. By comparison, the projected total of \$45B of capital invested in the region will equate to around 18% of global investment volumes. By comparison, the US accounts for 25% of global GDP, but a massive 46% share of total capital invested.

Looking at a sub-regional level, the UK & Ireland's share of GDP and total global investment volumes are broadly aligned at around 4% each. Every other sub-region, however, records underperformance in terms of investment volumes if adjusted to their relative share of global GDP. The gap is particularly pronounced for Southern Europe and Central and Eastern Europe.

Slicing the data on a per-country basis helps to identify the biggest opportunities to close the gap. In both Germany and Italy, for example, there is still a gap of more than two percentage points to catch up between their respective shares of global GDP and global private tech investment.

Share (%) of global capital invested, population, and GDP (%) by region, 2023



Notes:
Data is as of 30 September 2023. Full year extrapolated based on year to date data. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Population and GDP data from International Monetary Fund.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

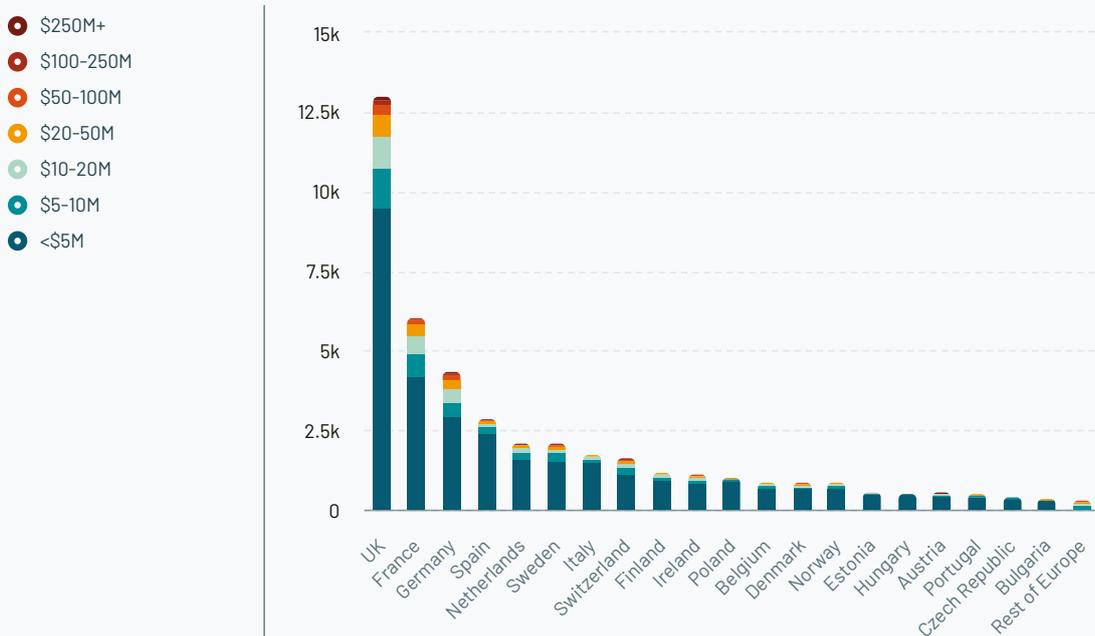
A reinforcing cycle

One proxy for the relative scale of startup ecosystems across Europe is the absolute count of startups and scaleups that have received different levels of external capital investment. This does not, of course, tell the full story as there are many exceptional startups that choose never to raise any external funding, but it is still a useful measure of the relative depth and maturity of tech ecosystems across the region.

Unsurprisingly, the countries that account for the largest absolute investment volumes are also the same ones with the highest count of funded companies. The UK is the leader with almost 13,000 funded tech companies in total and the largest count in every category, when the total number is broken down by the total capital raised by individual companies. The number of funded startups in the UK, France, and Germany (around 23,000) is greater than the total for the rest of Europe combined (around 21,600).

The data is also helpful to better understand the relative distribution of funded companies, according to how much capital they have raised. The vast majority of funded companies (76%) have raised less than \$5M in total. This also reveals interesting comparisons between countries in terms of the relative number of companies across the different levels of funding raised. Italy, for example, has similar numbers of early-stage startups compared to the Netherlands that have raised less than \$5M in funding, but far fewer larger-scale companies that have raised \$50M or more.

Count of funded companies and their total capital raised, 2023



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**



Spain's entrepreneurialism is reaching new heights, energized by the success stories and talented operators that are creating global impact.

Julio Martinez
Co-Founder & CEO, Abacum

These role models are more than just businesses; they are proof points of a thriving ecosystem that's attracting a surge of early-stage capital, both from within our borders and beyond. The fundamentals driving this momentum are robust—a cost-effective living standard combined with a deep talent pool from world-class universities, a vibrant expat community and strong public policy initiatives. This is fostering a landscape where Spanish startups not only start but stay to scale up. The increase in investment is a clear indicator of confidence in the Spanish market, and as these investments grow, they fuel the continuous cycle of innovation and success, propelling the Spanish tech sector forward.

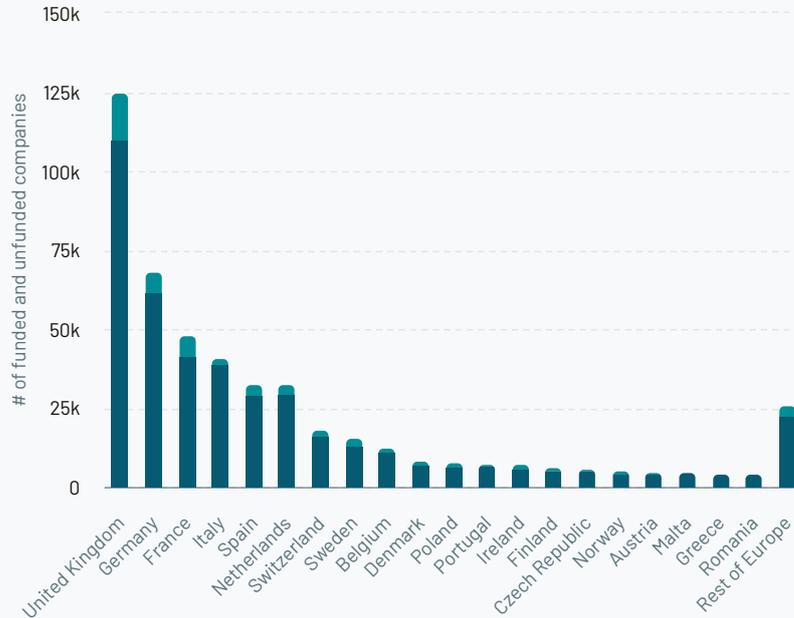
Tech entrepreneurship has exploded across Europe

The universe of funded companies is one useful measure of the scale of Europe's tech ecosystem, but a more comprehensive picture must also include the full universe of active tech startups, irrespective of whether they have raised venture capital.

This expands the tech startup universe by a factor of more than 10x from 45,000 to around 600,000 tech companies across the region. This also serves to highlight just how few tech startups (just 7.5% of all tech startups) actually embark upon the venture capital funding journey, whether voluntarily by choice or involuntarily as they do not succeed in raising external capital.

Count of funded and unfunded companies per country.

- Funded
- Unfunded



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by



dealroom.co

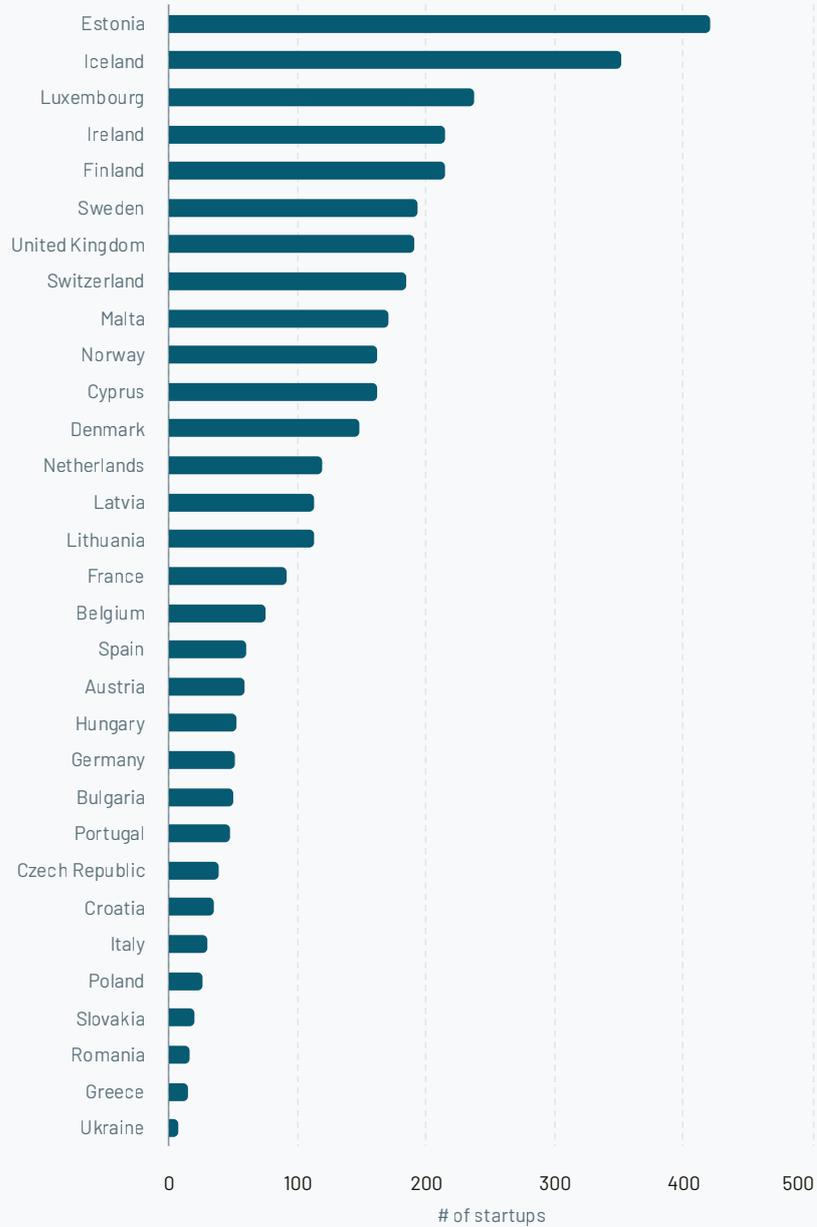
crunchbase

Pockets of high startup concentration

Inevitably, any measure of startup activity in absolute terms will be dominated by the largest countries by population and GDP. Adjusting for the size of the country, therefore, is a helpful tool to draw comparisons that benchmark the relative level of startup activity. Here, the density of funded startups is adjusted for population to identify countries with the highest density of funded startups per capita.

On this basis, smaller countries with active startup ecosystems rise to the top. Estonia, as in prior years of producing this analysis, takes the top spot. This also serves to highlight the fact that many large countries, such as Germany, Italy, and Spain have significant room for growth, if they want to compare more favourably with countries that have succeeded in creating a greater relative density of funded startups, on a population-adjusted basis.

Number of funded startups per capita per country, 2023



Notes:
Data is as of 30 September 2023. Data shown for countries with >300,000 inhabitants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**



The most counterintuitive element of Estonian success has been its small size.

Sten Tamkivi
Partner, Plural Platform

Any tech project in Estonia always begins with the scrappy lens of “how can we get ALL THIS done with 3 people?” You can never build a massive company on a local market of a million people, which means every founder is forced to think global from day one. When all founders look outside of Estonia, their backs are together: we have the most supportive community of peers anywhere.

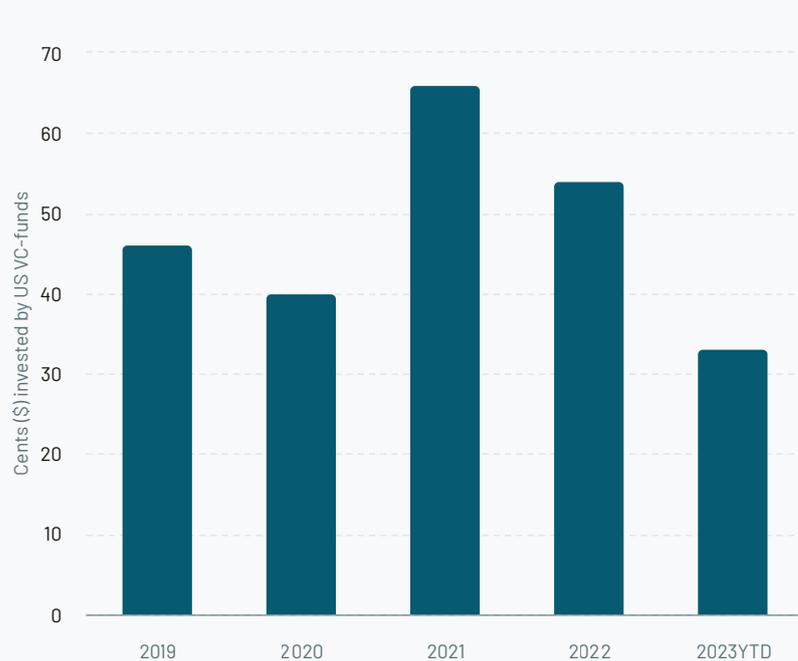
US investors retracting

The global retraction in investment volumes has a knock-on effect on the flow of capital between regions. This becomes most evident when looking at the capital contribution of US-based investors into European tech companies.

At the peak in 2021, each dollar invested by European investors was matched by 66 cents from the US. This measure has shrunk each year for the past two years, bottoming out at 34 cents in 2023, down 48% vs. 2021. Not surprisingly, this retraction has been felt most acutely by later-stage founders raising larger rounds.

This material decline is driven not only by a declining share of rounds that have any US investor participation at all, but also by a reduction in the average count of US investors participating in any given round. In other words, 2023 has seen a significant reduction in the count of large rounds that involved the participation of multiple US investors in the same round.

Cents invested by US VC-funds for every \$1 invested by European VCs into European startups, 2019 to 2023



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants

Sources:  dealroom.co

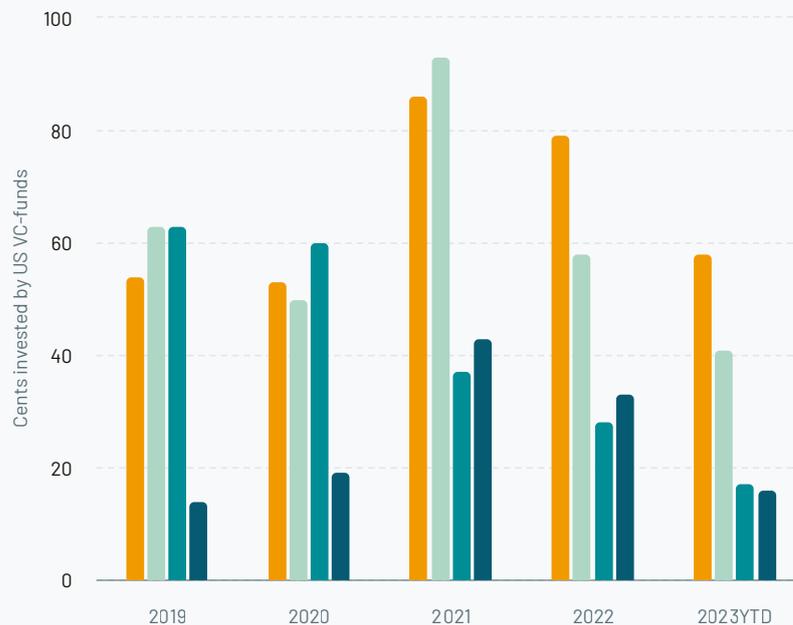
With some ecosystems being more reliant than others

The impact of this relative decline of US capital invested into European tech companies differs by country. Looking at the four largest European markets by overall investment volumes, there is a clear pattern of increases in the relative volume of US capital invested leading up to the peak in 2021, followed by two subsequent years of decline.

What is notable, however, is that the relative weight of US investment to European investment differs quite significantly between these countries. At the peak in 2021, every dollar invested into either a UK or German tech company by a European investor was matched by US investors to the tune of 86 cents in the UK and as much as 93 cents in Germany. By comparison, the equivalent number for French tech companies was around half at 43 cents.

Cents invested into European startups by US VC-funds for every \$1 invested by European VCs, 2019 to 2023

- UK
- Germany
- Sweden
- France



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: dealroom.co

Local capital increased in importance

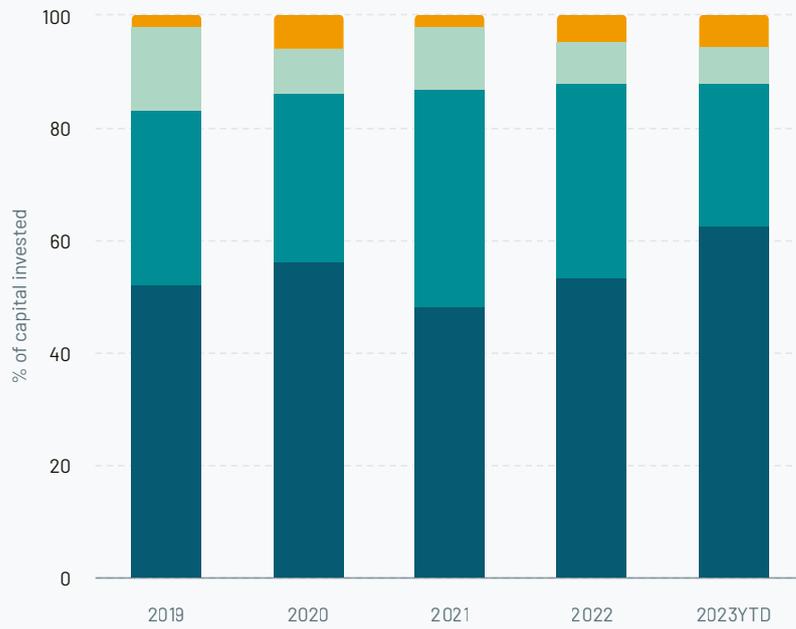
As a consequence of reduced US investor activity, the role of European investors has taken on even greater prominence in the past year, underscoring the significance of building a consistent and dedicated source of European capital across all stages, and especially at later stages. At the Growth stages, for example, the share of total capital invested by US investors has fallen from a peak of 39% in 2021 to just 25% in 2023. The declining share is also evident among Asian investors, whose share of total capital invested has declined from 11% in 2021 to 7% in 2023.

This shifting mix of geographic sources are less of an issue at the earlier stage, since European startups primarily attract initial rounds from domestic or pan-regional investors within the European ecosystem. In fact, investors in Europe, including both domestic and cross-border players, contribute to approximately 80% of the total capital invested in European tech companies during early-stage funding rounds, a share that has stayed broadly consistent over the past five years.

Capital invested in Europe by geographic source region (%), 2019 to 2023

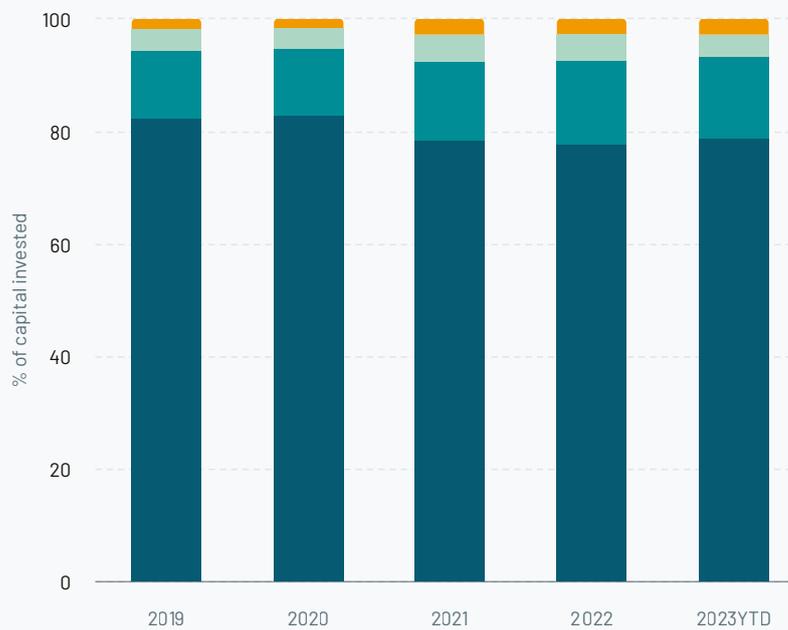
- Rest of World
- Asia
- North America
- Europe

Growth



- Rest of World
- Asia
- North America
- Europe

Early



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: dealroom.co

Unicorns distributed across Europe

The number of countries that have produced a breakout, billion-dollar company is one of the clearest indicators of tech entrepreneurship and the diversity of Europe's startup ecosystems. Today, a total of 308 companies are currently valued in excess of \$1B, and they have been started and scaled from 29 different countries. This includes not only countries that to date have only produced a single billion-dollar company (including Bulgaria, Latvia, and Slovenia), but also eight countries that have more than 10 current billion-dollar companies, led by the UK (104), Germany (54), and France (38).

Not surprisingly, the market reset has also resulted in a growing number of unicorns being 'dehorned', meaning they have seen their valuation fall to under a billion dollars. At least 52 companies have been "dehorned" to date, either via down rounds, share price compression, or by going out of business entirely. This creates challenging times for companies, their founders, employees, and investors, but is also a natural feature of the startup and scaleup lifecycle.



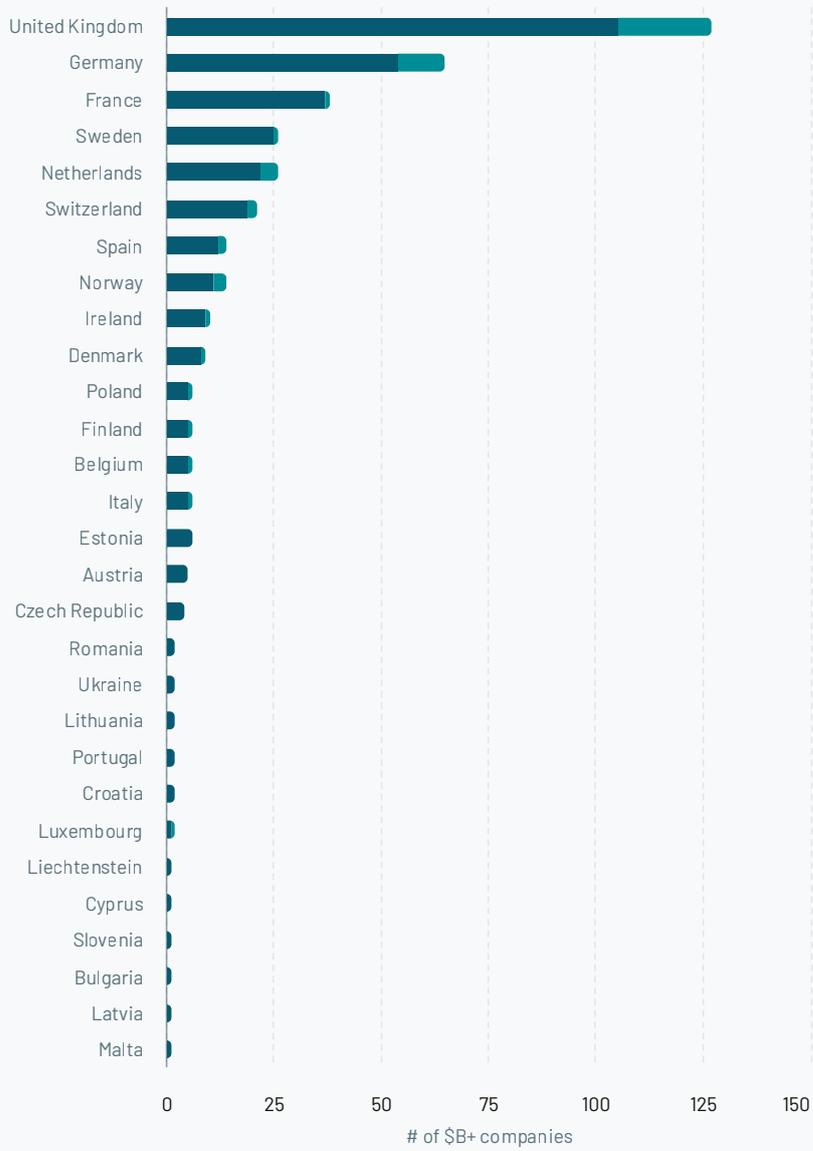
We have just as much enthusiasm now – if not more – as nearly a decade ago when we first opened the doors to our London office.

Luna Schmid
Partner, Google Ventures

Many of the first-generation successful startups in Europe from the last decade have spawned new hubs of early-staged founders and builders. Moreover, the rise of remote work has distributed talent and opportunity to new geographies, spurring new hotbeds of innovation across the EU. The confluence of these forces has created an environment of sustained and rational optimism, and we're excited to continue supporting Europe's thriving tech ecosystem at the earliest stages of company formation.

Number of \$B+ companies per country, 2023

- Number of dehorned \$B+ companies
- Number of \$B+ companies



Notes:
Data is as of 30 September 2023. '\$B+' or 'unicorn' is defined as a tech company that has reached \$1B+ valuation in its lifetime.

Sources: **atomico**

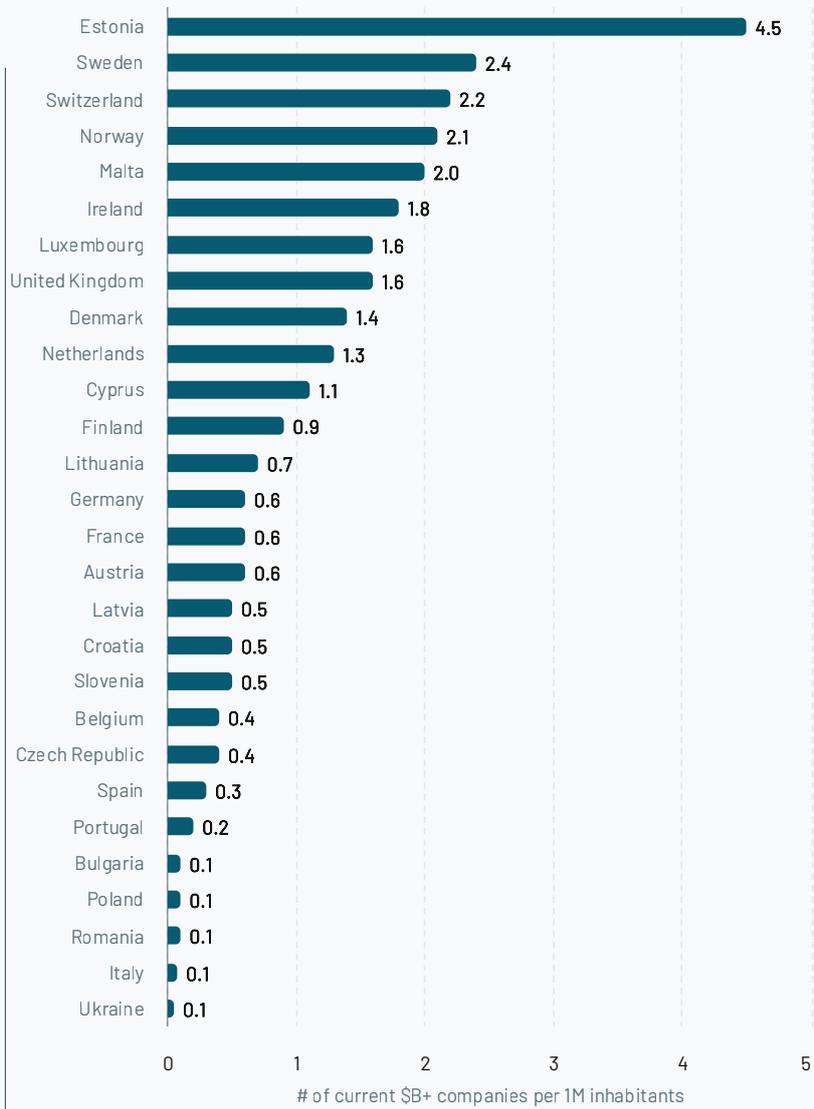
\$B+ club per capita unchanged

The emergence of billion-dollar companies is a simple but useful measure of startup success. It is also an indicator of a country's ability to foster innovation and create a supportive environment for the development of high-growth startups and is therefore a way to benchmark progress, especially if normalised on a per capita basis to adjust for the different scale of country populations.

On this measure, as it has done for years, Estonia continues to stand out as the leader in billion-dollar company density, with 4.5 companies valued at over \$1B per every one million inhabitants. Benefitting from the early success of Skype, many former employees have since used that experience to spin out their own companies. Some of the most prominent examples include Wise and Bolt, both now billion-dollar companies in their own right.

Of course, a small population can help boost per capita measures. Similarly to Estonia, other smaller countries such as Sweden (2.4 unicorns per 1M inhabitants), Malta (2.0), and Norway (2.1) are all punching above their weight. Nevertheless, the UK's strong startup scene is reflected in the amount of \$B+ companies per capita too, ranking way above the European average of 0.9 with 1.4 unicorns per 1M residents.

Count of current \$B+ companies per 1M inhabitants



Notes:

Data is as of 30 September 2023. '\$B+' or 'unicorn' is defined as a tech company that has reached \$1B+ valuation in its lifetime. Population data from International Monetary Fund.

Sources: **atomico**

Where are European tech companies coming from?

As highlighted in the Executive Summary, the meteoric rise of tech entrepreneurship in Europe has resulted in the number of new tech startups founded each year in Europe exceeding the US for each of the past five years. On average, around 15,200 new tech startups have been founded per year in Europe, compared to 13,700 in the US.

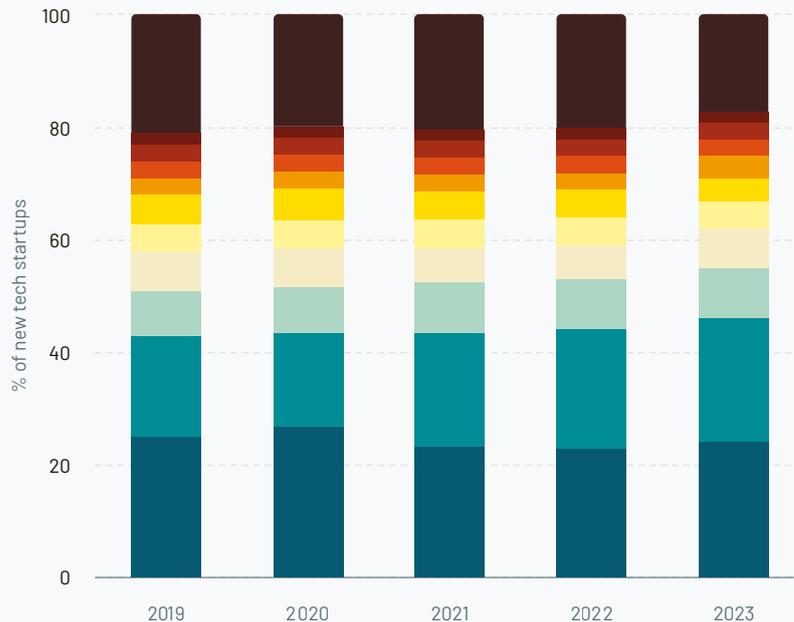
But which countries are the biggest contributors to tech startup formation across Europe? And which countries, if any, are seeing their share of tech startups being founded faster, in relative terms, than those across the rest of the region?

The UK leads the way in terms of the number of tech startups founded each year, accounting for approximately a quarter of all new companies each year in Europe. The fastest-rising country in terms of share of new tech startups created each year is France, which has seen its share increase from 18% in 2019 to 22% in 2023.

While the top 10 countries account for a significant percentage of total tech startup creation each year (83% in 2023), a meaningful share of new tech startups (17%) are being started away from these more established clusters of startup activity.

Share (%) of new tech startups founded per country, 2019 to 2023

- Rest of Europe
- Finland
- Sweden
- Belgium
- Switzerland
- Spain
- Italy
- Netherlands
- Germany
- France
- United Kingdom



Notes:
Data is as of 20 September 2023. To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points.

Sources: **revelio labs**



When it comes to starting a business, talent is always top of my mind.

Tania Boler
Founder & CEO, Elvie

For this reason, the UK is a great place to start a business. 84% of research at our universities is either “world-leading” or “internationally excellent” and we also have one of the most mature start-up ecosystems globally which allows us to build on historical successes and failures.

Yet, significant differences between ecosystems prevail

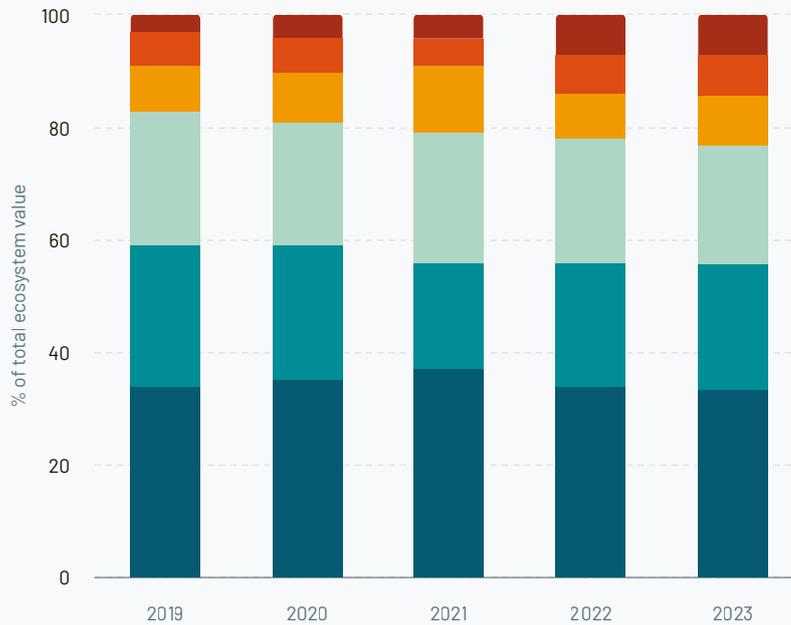
The distribution of ecosystem values varies by regions, but in the past five years, has stayed quite stable.

France & Benelux take home the biggest share at 35%. This is largely thanks to their significant public market value and the Netherlands being home to ASML, the largest European listed tech company. SAP in Germany is the next biggest public tech giant in Europe, boosting DACH into tied second place overall with 23%. On the flip side, the UK & Ireland is home to the largest share of private tech, bringing its overall share up to 23%.

Together, these three regions capture 81% of the combined ecosystem value in 2023, again underscoring the prevailing disparities across different parts of Europe. That said, the rest of Europe has done some catching up, increasing their share of the pie from 15% in 2019 to 19% in 2023.

Ecosystem value by region, 2019 versus 2023

- CEE
- Southern Europe
- Nordics
- DACH
- France & Benelux
- UK & Ireland



Notes:
Private market data from Dealroom.co excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Based on data up to 30 September 2023. Public markets data as per S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only. Please also note that the data excludes Israel.

Sources: **S&P Global** Market Intelligence | **dealroom.co**

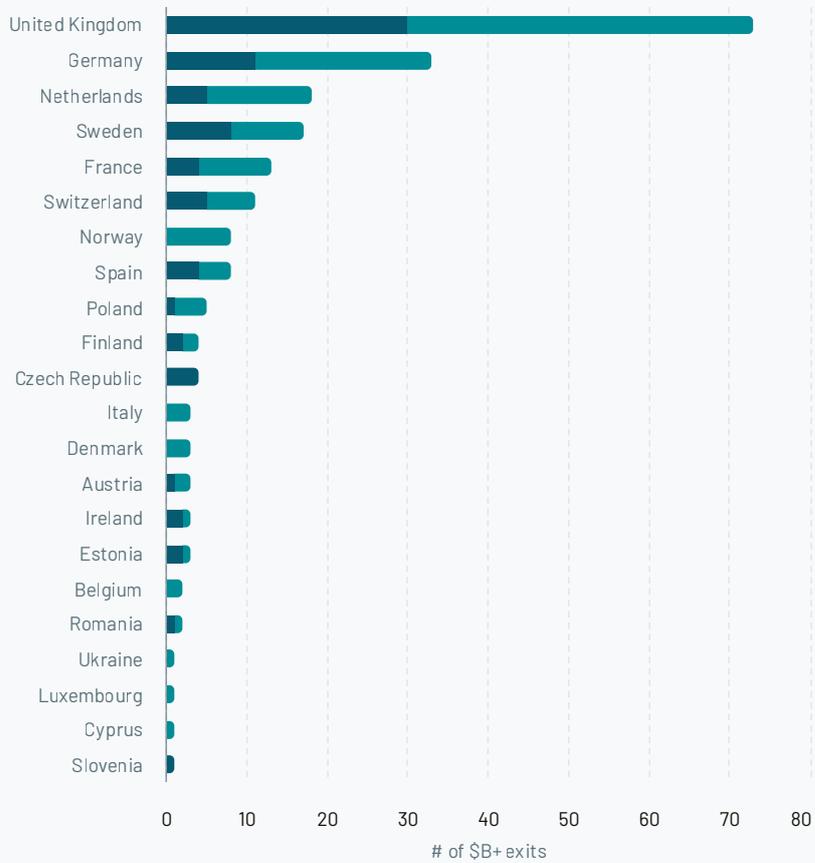
\$B+ exits concentrated in largest and most mature ecosystems

Not surprisingly, given the relative maturity of tech ecosystems in these countries and deeper pools of local talent, capital, and more established public markets, countries like the UK, Germany, the Netherlands, and Sweden have secured the highest count of \$B+ exits to date. These exits, of course, are critical for the continued growth and development of their local ecosystems thanks to the flywheel effect that is unleashed through the subsequent recycling of capital and talent.

Critically, given the importance of companies succeeding in going through the full lifecycle from inception to a billion-dollar liquidity event, it's of note that billion-dollar exits have now been realised from 22 different countries across the region, including 18 countries that have seen this milestone being surpassed on more than one occasion. Great companies truly come from anywhere in Europe.

Number of \$B+ exits per country, 2023

- IPOs
- M&A



Notes:
Data is as of 30 September 2023. '\$B+' or 'unicorn' is defined as a tech company that has reached \$1B+ valuation in its lifetime.

Sources: **atomico**

2.3

Themes

Key findings

Carbon & Energy is now Europe's most popular sector

Climate / sustainability was not only one of the top themes among new startups, but also the sector that attracted the most investment, overtaking the usual suspects of Finance & Insurance and Software.

AI innovation wave ignites Europe's Seed scene

AI was the most popular sector for rounds of less than \$5M, as more and more companies have popped up to capitalise on the wave of innovation spurred on by breakthroughs in large language models (LLMs).

Europe's talent wants to solve the world's toughest challenges

The top themes that new joiners are attracted to are climate / sustainability and health, showing Europe's dedication to solving societal problems.

Methodology note

Creating a taxonomy is a hard task, and far from an exact science. However, we aim to find maximum alignment between our taxonomy and the real problems companies are solving.

The following chapter leverages a collection of models that map companies and startups to a taxonomy of 12 high-level sectors as well as 75+ building-block themes.

More specifically, sectors are where companies would fit in a description of a country's economic industries, for example, Education or Health. A company can only have one sector but might have multiple themes. Themes are more specific expressions of the company's offer, that they might use in their self-description or a pitch. Examples we map include DevOps, Digital Care, Electric Vehicles or Sustainability.

These help us speak a common language when analysing the thematic flow of talent and capital within the European tech ecosystem.

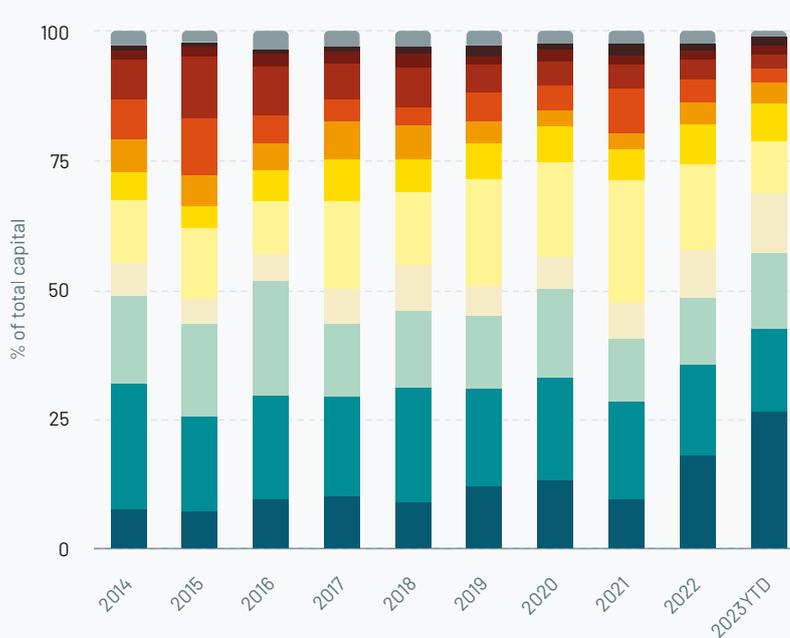
Climate tech dominates overall capital flows

The Carbon & Energy sector, which encompasses climate tech, accounts for 27% of all capital invested in European tech in 2023, more than doubling its share of investment since 2021.

This has seen the sector overtake Finance & Insurance, as well as Software as the single largest sector by capital raised. This not only represents a dramatic increase in the scale of capital invested behind the green transition, but also a clear slowdown in fintech investment volumes since the peak of the market.

Distribution of total capital invested by sector (%), 2014 to 2023

- Transportation
- Food and Drinks (incl. Agriculture)
- Education
- Wholesale & Retail
- Warehousing & Manufacturing
- Social, Arts, Entertainment & Recreation
- Digital Infrastructure
- Finance & Insurance
- Enabling Technologies
- Health
- Software
- Carbon & Energy



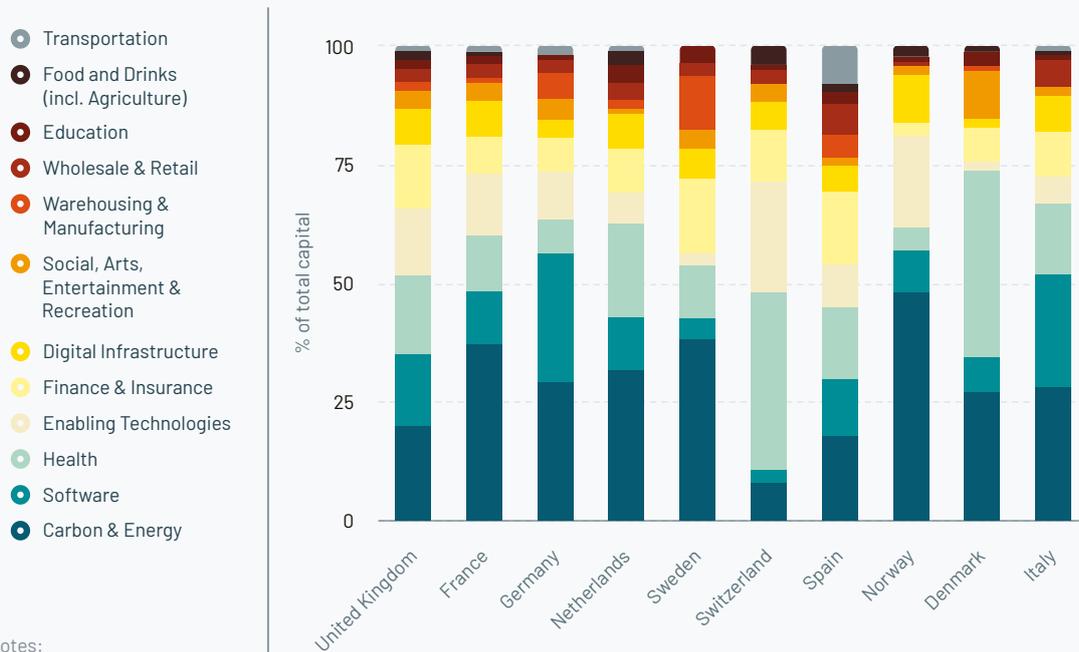
Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **iD dealroom.co** **crunchbase**

Well-diversified Europe

At a country level, investment trends also show a high degree of sector diversity. The dominance of capital flows into the Carbon & Energy sector, notably, is present across almost every major European country. This sector captured a particularly high share of capital invested in the Nordics, representing 48% of all capital invested in Norway and 44% in Sweden. In Denmark and Switzerland, however, Health is the single largest investment sector of 2023, representing 39% and 38% of total capital invested, respectively.

Distribution (%) of total capital invested by sector and by top 10 countries by total investment, 2023



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

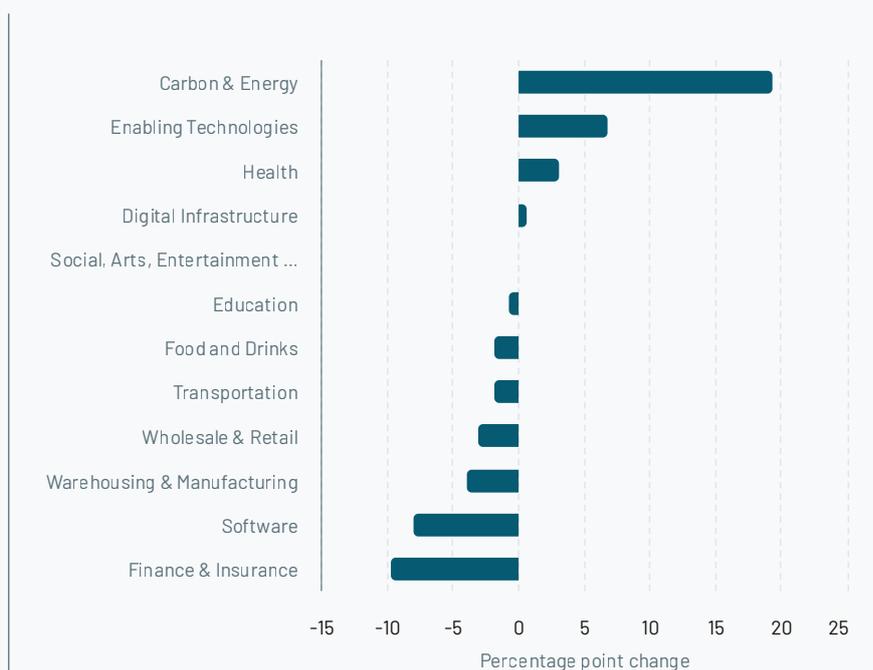
Finance and Insurance giving way to newcomers

The large overall decline in total investment volumes means that to measure the relative growth of different sectors over time, the change in share of overall investment per sector is the most useful metric.

Comparing the sector-level distribution of capital in 2023 vs. 2022 in this way highlights the large increase in the overall share of capital invested in the Carbon & Energy sector, representing a share gain of over 19 percentage points. This year has also seen a large share gain of capital investment into Enabling Technologies, which includes core technology such as AI Infrastructure, Quantum Computing, and Semiconductors. The Health sector is the only other sector that captured a meaningful relative gain in share of investment, up over three percentage points in 2023 vs. the prior year.

The Finance & Insurance sector accounted for the largest overall year-on-year declines in share of investment, representing a loss of almost 10 percentage points of share of capital invested. This was followed by the Software sector, which saw a drop of eight percentage points in its 2023 share of investment vs. 2022 levels.

Change in share (percentage points) of total capital invested by sector



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**



Europe remains at the forefront of the global effort to combat climate change, with initiatives like the European Green Deal, which aims to ensure no net emissions of greenhouse gases by 2050.

Namrata Sandhu
Founder & CEO, Vaayu

With European companies investing heavily in groundbreaking climate tech, circular economy solutions and more, Vaayu is placed in a unique strategic position to help tackle climate change head-on and help other businesses lower their impact. Its strong commitment to sustainability, an increasingly supportive regulatory environment and historical experience in green technologies uniquely position European tech to play a crucial role in addressing climate-related challenges.

Sectors that are up next

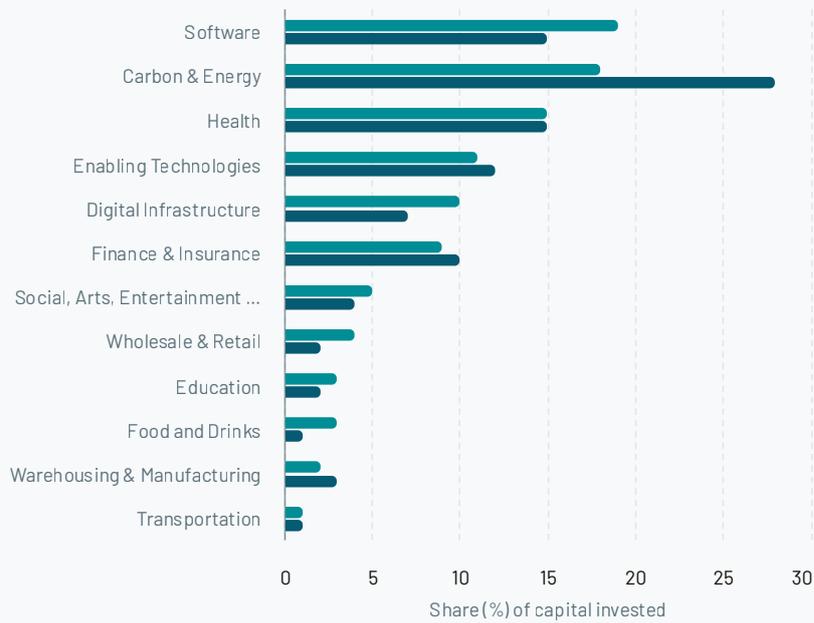
An analysis of the flow of earliest-stage investment by sector provides a useful forward-looking indicator of the sectors most likely to dominate future later-stage investment.

Looking at the distribution of sub-\$5M rounds - which provide a general proxy for Pre-Seed and Seed investment trends - Software, Carbon & Energy, and Health are the top three most important sectors for early-stage investment in 2023, followed by Enabling Technologies and Digital Infrastructure.

This chart also highlights the outsized share of investment into the Carbon & Energy sector in later rounds, which captured 28% of all capital invested in rounds of \$5M or more.

Share (%) of capital invested by sector and round size, 2023

- <\$5M rounds
- >\$5M rounds



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

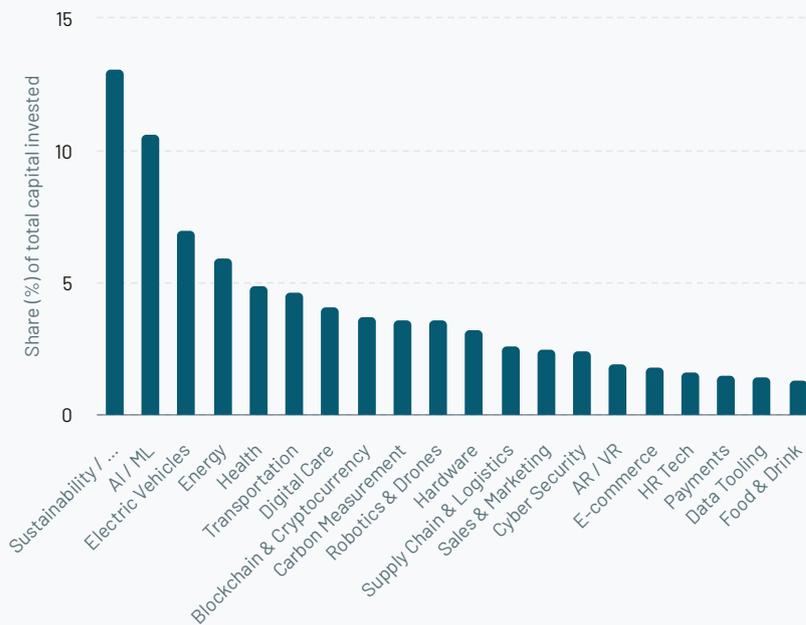
Sources: **atomico** Powered by **dealroom.co** **crunchbase**

The top themes driving investment currents

Peeling one layer below sectors, let's have a closer look at the themes driving funding this year.

Unsurprisingly, the big one is the rise of AI, with more and more companies popping up to capitalise on the wave of innovation we're seeing from large language models (LLMs). Out of all funding, companies that fall under the AI theme captured just under 11%. Winding the clocks back to 2019, some might not be surprised to see AI also topping the charts. The theme has benefitted from consistent flows of funding over many years and is now bearing fruit, with many growth-stage companies raising sizeable rounds in Europe this year.

Share (%) of capital invested by sector and deal size



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**



We're in the midst of a generational shift in healthcare, where technology and AI are set to dramatically speed up and change the way we practise medicine.

Hjalmar Nilsonne
Co-Founder & CEO, Neko Health

For Europe to compete on the global stage and build businesses as valuable as the US and China, we must excel not only in software but in pioneering hardware too. If we in Europe want to shape the future of healthcare, we must have companies in our region who are creating that future. Our ambition must match our capability to innovate and integrate, to truly influence the healthcare of tomorrow.

AI takes over at Seed

Looking more closely at the most popular sectors at the earliest stages, we see other key trends starting to take off for Seed investments. Unsurprisingly, the most notable one is the rise of AI, with a huge number of companies popping up to capitalise on the wave of innovation ignited by breakthroughs in large language models (LLMs). This has catapulted AI/ML to the top of the charts as the number one earliest-stage category, as ranked by the count of rounds of investment of \$5M or less.

Though things are certainly incredibly active at the earliest stages in AI, Europe already has a growing and maturing ecosystem of growth stage companies with AI at their core.

Top themes ranked by capital invested for rounds of less than <\$5M, 2023



Notes:
Data is as of 30 September 2023.
Excludes the following: biotech,
secondary transactions, debt,
lending capital, and grants.

Sources: **atomico** Powered by

dealroom.co **crunchbase**

Continued innovation in deep tech

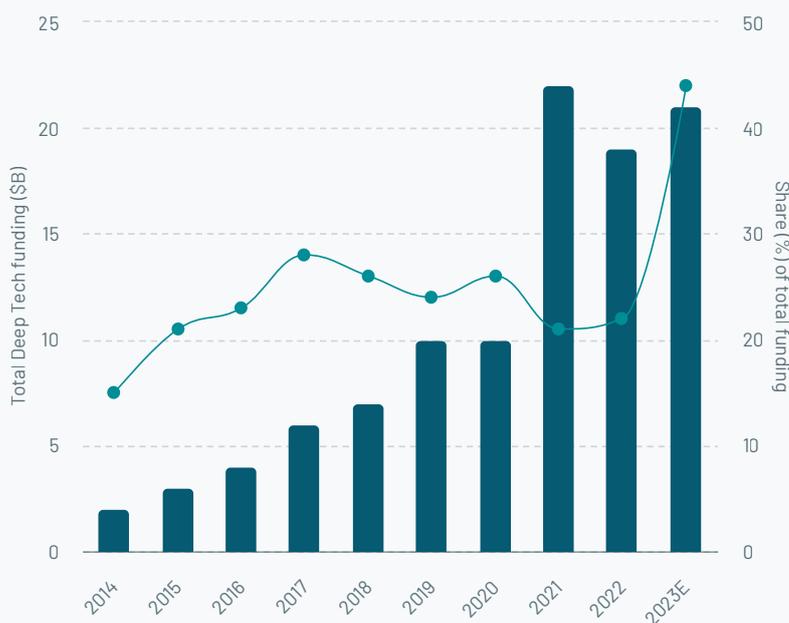
The share of investment allocated to European deep tech companies – an umbrella category for companies that apply breakthroughs in science and engineering to come up with novel products and services – reached a record-breaking 44% of total capital invested in 2023, up from just 15% of total investment volume a decade ago.

Deep tech investment has, in fact, bucked the overall slowdown in absolute investment volumes in Europe. It looks set to surpass last year’s total, and is coming close to parity with the record sum invested in 2021.

The biggest drivers of robust deep tech investment have been the tailwinds behind investment in breakthrough technology addressing the Carbon & Energy sector, and the strong trend of investment into European AI companies in 2023. The overall strength of deep tech investment reflects Europe’s solid bedrock of academic and research institutions and its robust pool of technical talent.

Amount of deep tech funding (\$B) and share (%) of total European funding, 2014 to 2023

- Total Deep Tech funding (\$B)
- Share (%) of total funding



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. All Dealroom.co data excludes Israel and the following: biotech, secondary transactions, debt, lending capital, and grants. Deep Tech companies have an extended R&D phase and higher share of technical staff compared to conventional ventures. Deep Tech also often involves the development of hardware and/or IP.

Sources: dealroom.co



Deep Tech has always been a core part of venture investing.

Steven Jacobs
Partner & CPO, Lakestar

Deep Tech, or Frontier Tech, is fundamentally new science and engineering making its way into companies and products for the first time. Historically, we can think of Edison commercializing the light bulb with GE, Carl Benz building the first car at Mercedes-Benz, or Steve Jobs at Apple launching Lisa, the first computer that used a graphical user interface. These Deep Tech founders created some of the largest companies in history, many of which have become core platforms and critical infrastructure for societies today. In 2023, as highlighted in the Europe DeepTech report, the frontier has shifted, and DeepTech-start-ups are tackling new challenges. Novel Energy such as fusion and new battery chemistries, access to space and the deployment of new astral infrastructure, new breakthroughs in AI and computational biology, and computing technologies including photonics, decentralized networks, and quantum. These companies stand to become the next giants, but to get there, they will need to overcome large gaps in growth stage funding, the urgent need for dispersed European talent to aggregate in dense hubs, and intense competition from the US and China.

Europe has more AI talent than US

The fact that AI is flourishing under the radar in Europe should not be a surprise. Europe has a strong technical talent pool, owing its strength to world-class scientific and technical institutions and the depth of its engineering talent.

This strength extends into the field of AI. Over the past decade, Europe has not only witnessed a greater than 10x increase in the number of people working in AI roles, but also claims a larger resident population of highly-skilled AI professionals compared to the US.

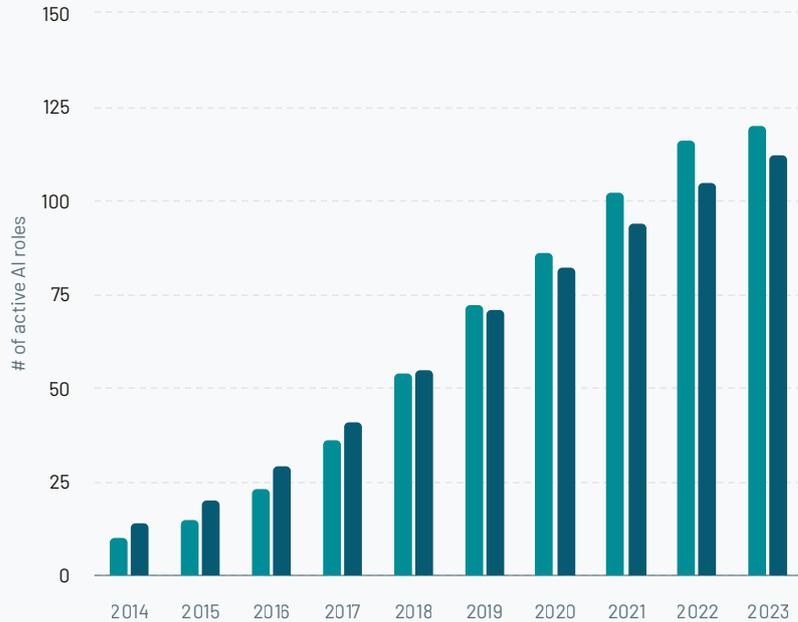
Of course, many of these AI professionals are working in roles at US-headquartered technology companies that have built a large AI research presence in Europe, such as Alphabet or Meta. But as Mistral AI - a company founded by European former leading AI researchers at Meta and DeepMind - demonstrates, these European-based pools of AI talent have become an incredibly rich breeding ground for the founders and talent behind the next generation of European AI companies.

Number of active AI roles by region, 2014 to 2023

- Europe
- United States

Notes:

To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. 2023F is based on data adjusted for lag effect and extrapolated based on data as of 20 September 2023. Data consists of all companies, including non-tech. This is based on an analysis of the job titles of 216M professionals. The universe of professional considered to be actively employed in AI/ML roles is based on a search utilizing both common job titles in the field (e.g. AI Researcher, ML Engineer), as well as key phrases used in job titles (e.g. Deep Learning, Reinforcement Learning). The query includes titles and keywords both common today and historically. A consistent methodology is applied consistently across all profiles in all geographies.



Sources: **atomico**° Powered by **revelio labs**

Europe's rich in AI talent

Europe's AI talent base has grown rapidly over the past decade, growing more than 10x to a pool of over 120,000 highly-skilled professionals actively employed in AI roles, a number that just exceeds the US.

Europe's AI talent base eclipses the US

120k+

Active AI roles in Europe

Source **atomico**° Powered by

revelio labs



Incredible universities and a long history of AI research mean founders here are well positioned to build breakthrough AI companies.

Julien Bek
Partner, Sequoia

Europe's concentration of dedicated AI practitioners relative to its overall talent pool is 30% higher than in the US. This workforce is also highly educated, with 70% holding a Masters or PhD. Founders here can access the specialist skills they need to build and this talent's not just in established hubs like London, Paris or Berlin - our research identified spikes of outlier talent in AI in Dublin, Zurich, Athens and Edinburgh to name just a few.

AI investment defies the downturn

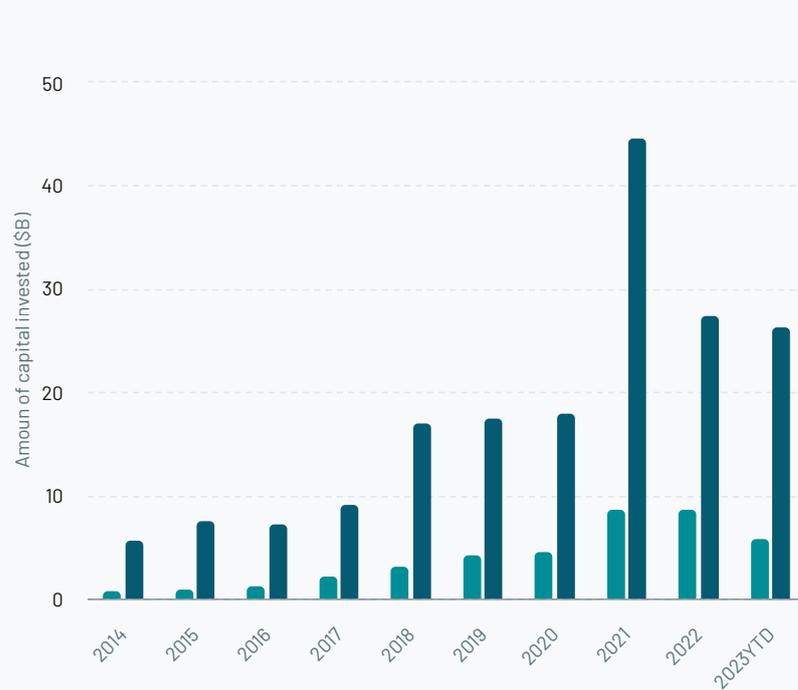
AI has been at the heart of manifold discussions in the industry - and beyond - in 2023. Its elevation in public discourse, however, belies the fact that AI has been at the core of so many companies and so much investment since well before the last decade. Generative AI, which has captured so much attention in 2023, is of course just a specific branch of the much broader, overarching field of AI.

Investment into AI in Europe is defying the broader downturn, with 2023 total investment on track to come close to, or perhaps even surpass, last year's record-breaking amount of \$8.7B.

While investment into AI in Europe has grown massively over a 10-year period, total investment volumes are a long way off the levels seen in the US. Over the past five years, almost \$35B has been invested into European AI companies, compared to more than \$130B in US AI companies. While Europe is now consistently seeing rounds of investment of \$100M or more, and even up to \$0.5B, this pales in comparison with Microsoft's \$10B investment into OpenAI.

Total capital invested (\$B) in AI / ML in Europe and US, 2014 to 2023

- Europe
- US



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by



dealroom.co

crunchbase

AI capturing greater share of total investment

As a consequence of AI investment defying the broader downturn in total capital invested in European tech, AI's share of total investment spiked to an all-time high in 2023, climbing to 17%. Again, the data makes it clear that AI has been an important feature of European investment themes for many years, consistently accounting for more than 10% of total investment over the last five years.

What is also notable is that the gigantic sums invested in US AI leaders, such as OpenAI and Anthropic, in the last two years has resulted in a widened gap between Europe and the US's relative share of investment in AI in 2023. In the US, AI investment accounted for 30% of total tech investment, almost double the level seen in previous years.

Share (%) of AI / ML capital invested to total capital invested in respective regions, 2014 to 2023

- Europe
- US



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **iD dealroom.co** **crunchbase**

Early-stage AI activity flourishing

The difference in scale in absolute investment volume into AI companies in the US and Europe is largely a function of greater scale and frequency of Growth-stage activity.

At the Growth-stage, Europe has an 16% share of total AI / ML capital invested in 2023. This is a small, but notable increase in share from 10% in 2014.

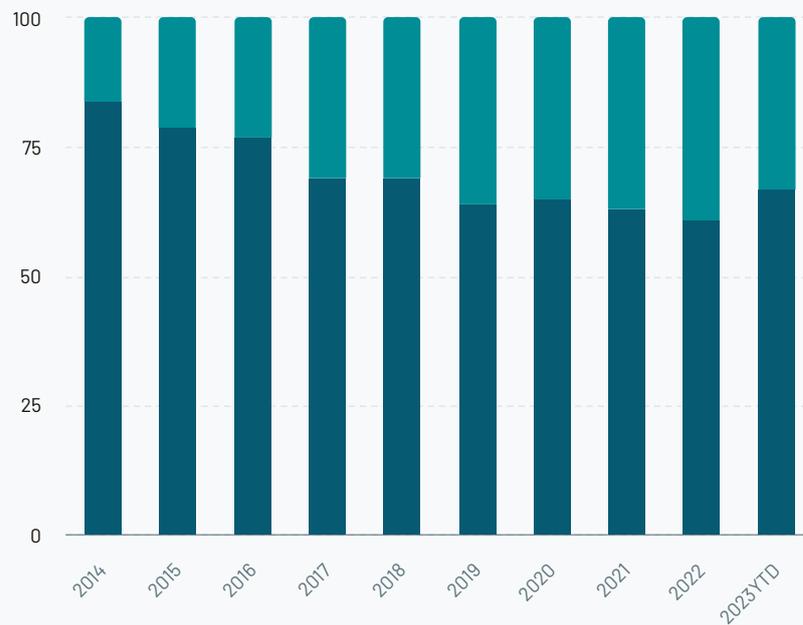
By comparison, at the early-stage, Europe has an 33% share of total AI / ML capital invested in 2023. Again, this share has climbed consistently over time as Europe's tech and AI ecosystem has matured. In 2014, for example, Europe's early-stage share was just 16%.

This underlines the fact that early-stage activity in AI has expanded significantly in Europe, growing faster in relative terms than the US. But, there is unquestionably more work to do in order to scale up these companies successfully and to build a Growth-stage environment that enables access to deeper pools of capital.

Share (%) of AI / ML capital invested in Europe and US, 2014 to 2023

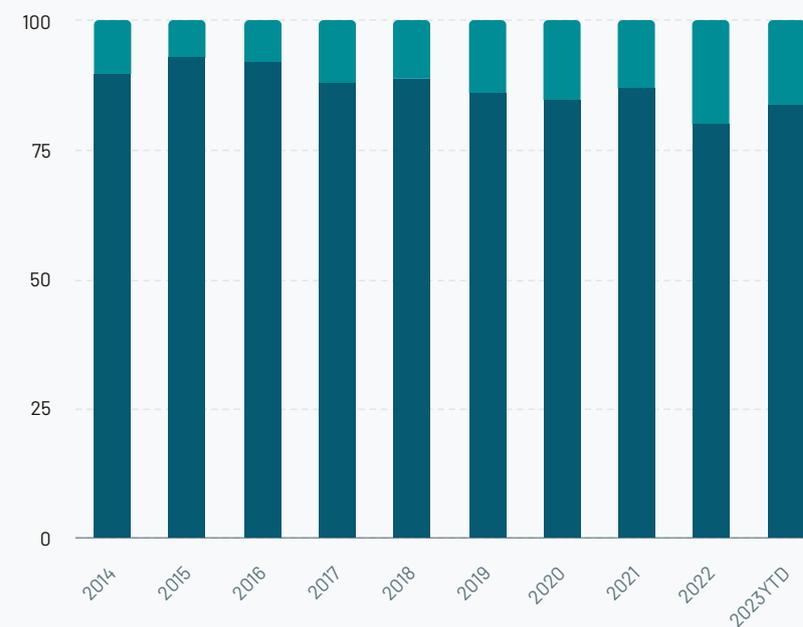
- Europe
- US

Early stage



- Europe
- US

Growth stage



Notes:
 Data is as of 30 September 2023.
 Excludes the following:
 biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**



Europe needs 21st century institutions to match 21st century technology. This applies to everything from regulators and national governments through to universities. The most valuable role European governments can play in AI development is by ensuring the right infrastructure is in place.

Nathan Benaich

Founder & General Partner, Air Street Capital

This means building out public cloud capacity for startups, pushing universities to end their feudal spinout policies, and making it easier for people to establish venture funds. The big danger for Europe lies in giving in to its interventionist impulse. Regulating AI isn't like regulating Airbus. Governments attempting to 'guide innovation' through large-scale legislation will slow down progress while empowering a small clique of US tech companies. Europe should avoid treating AI as distinct from any other tool or technology and instead take a cool-headed, context-dependent approach to assessing risk.

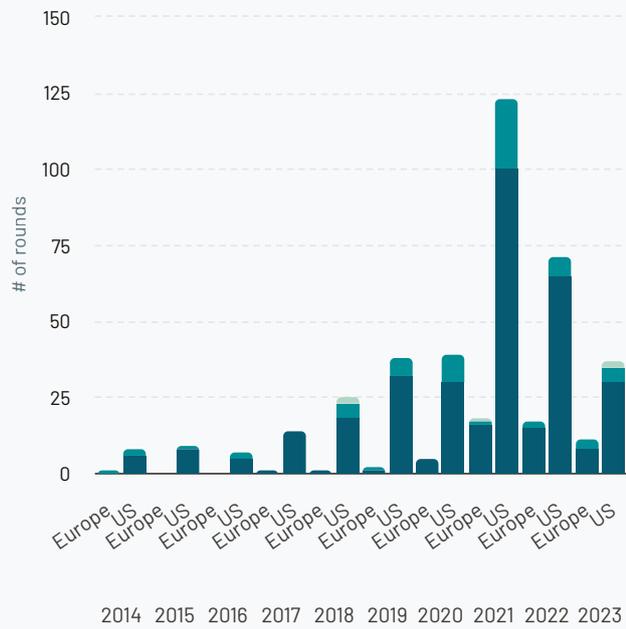
Investors betting big on AI

There has been no shortage of perspectives on Europe's position in the AI race. Amidst the noise, it is easy to overlook the fact that the AI theme has actually hit a stride in Europe in recent years, with European AI companies consistently securing mega-rounds of \$100M or more. In fact, this year will come close to matching the record set in 2021, despite the huge headwind of a steep drop in overall investment levels in Europe in 2023.

As of the end of Q3 2023, European AI companies had raised 11 rounds of \$100M or more, compared to 37 rounds by US AI companies over the same period. So far, however, European AI companies have not yet raised the type of billion-dollar or multi-billion-dollar rounds that have become crucial sources of firepower for the most important and fastest-growing US AI companies, like OpenAI or Anthropic. The multi-\$100M+ rounds, however, are certainly beginning to appear in Europe.

Number of \$100M+ rounds in AI / ML, 2014 to 2023

- \$1B+
- \$250M-\$1B
- \$100M-\$250M



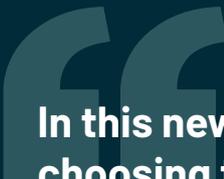
Notes:
2023 data is based on data to September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by



dealroom.co

crunchbase



In this new era, the challenge for us was about choosing the right partnerships, because it's about more than just money.

Jonas Andrulis
Founder & CEO, Aleph Alpha

Of course, someone has to pay for the compute and all the talent. But the thing that will help us survive in the upper echelons of generative AI is also the partnerships and our partners are phenomenal. They understand that this is a unique, once in a generation opportunity to build something meaningful.

Funding needs to keep pace with innovation

The difference in scale of the funding going to US AI leaders is emphasised by a simple comparison of the total amount raised across the top 10 largest AI rounds raised in 2023 in Europe vs. the US. While Europe's largest AI rounds totalled an impressive \$2.5B, this is dwarfed by the more than \$14.2B raised across the top 10 largest rounds in the US this year.

Total funding raised by top 10 rounds in Europe

\$2.5b

Source **atomico**° Powered by



Total funding raised by top 10 rounds in US

\$14.2b

Source **atomico**° Powered by



A selection of Europe's largest AI rounds of 2023

The rank of the largest rounds raised by European AI companies in 2023 highlights the strength of investor interest in supporting the up-and-coming generation of potential European AI champions. Notably, this list includes three rounds in excess of half a billion dollars each, including German foundational model company, Aleph Alpha's most recent \$500M Series C round. The list is also notable for the presence of both 'pure' AI companies, such as Mistral and Aleph Alpha, as well as 'applied AI' companies that are bringing AI innovation to industries as diverse as defence (Helsing AI) and mobility (Conigital). The question to ask now is when will Europe start to see billion-dollar rounds that match the scale of capital being invested into US AI leaders?



Conigital

HQ: United Kingdom
\$528M Series A



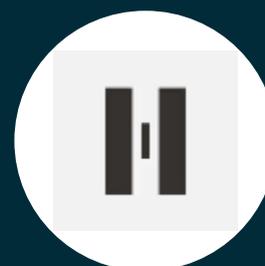
Aleph Alpha

HQ: Germany
\$500M Series C



Builder.ai

HQ: United Kingdom
\$250M Series D



Helsing AI

HQ: Germany
\$222M Series B



Quantexa

HQ: United Kingdom
\$129M Series E



Accenta

HQ: France
\$116M Series A



Mistral AI

HQ: France
\$113M Seed



Aleph Alpha

HQ: Germany
\$108M Series B



DeepL

HQ: Germany
\$100M Series B



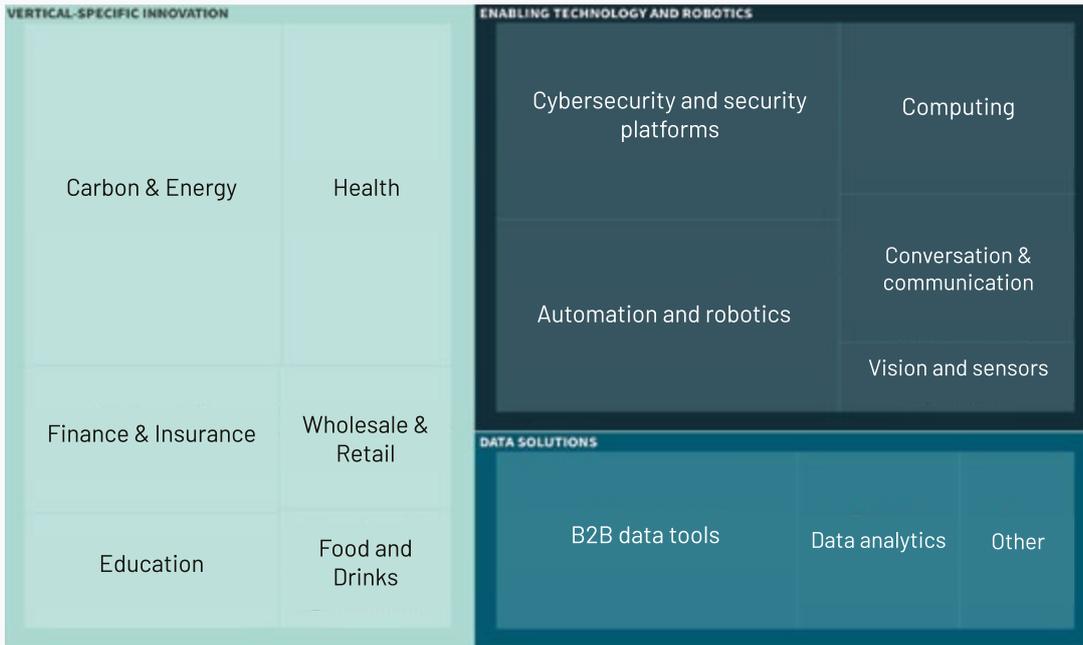
Synthesia

HQ: United Kingdom
\$89M Series C

AI everywhere

As well as large-scale investment into core AI infrastructure and models, capital invested into AI is supporting its application across a broad range of sectors and themes. Vertical-specific applications of AI, for example, within the Carbon & Energy and Health sectors, account for just over one third (38%) of total capital invested in 2023.

Share (%) of underlying categories for capital invested in AI, 2023



Notes:
Data is as of 31st of July. Excludes the following: biotech, secondary transactions, debt, lending capital and grants..

Sources: **atomico** Powered by

iD **dealroom.co** **crunchbase**

Generative AI sector rises in Europe's tech scene

The most remarkable subset within the AI space this year has undoubtedly been Generative AI.

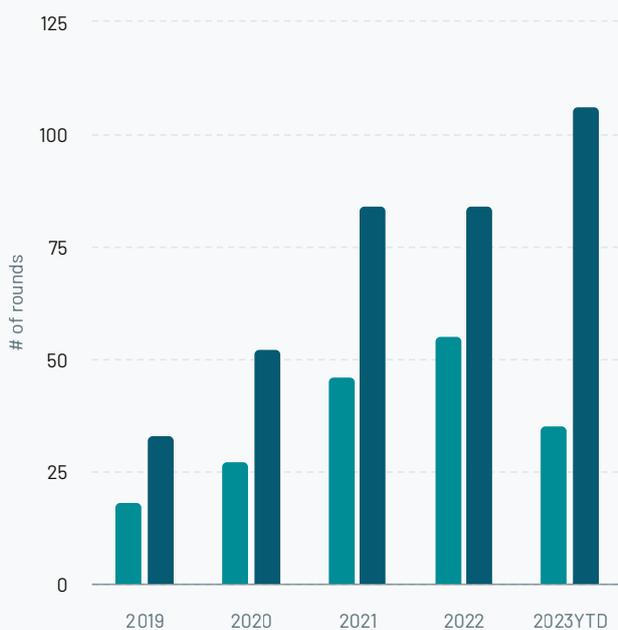
Generative AI companies focus on developing and applying artificial intelligence technologies, particularly machine learning techniques, to generate new content, data, or media. This category features companies like Mistral AI and Aleph Alpha in Europe, alongside OpenAI (the makers of ChatGPT) and Inflection AI in the United States.

While Generative AI companies may represent a relatively small fraction of overall tech fundraising activity on an absolute count basis, they have swiftly had an outsized impact on workflows, regulatory discourse, and society at large.

What is also notable is that whilst generative AI companies have leapt into the public consciousness in 2023, they have been quietly being started and funded in greater numbers for many years, both in Europe and the US.

Count of rounds in GenAI in respective regions, 2019 to 2023

- Europe
- US



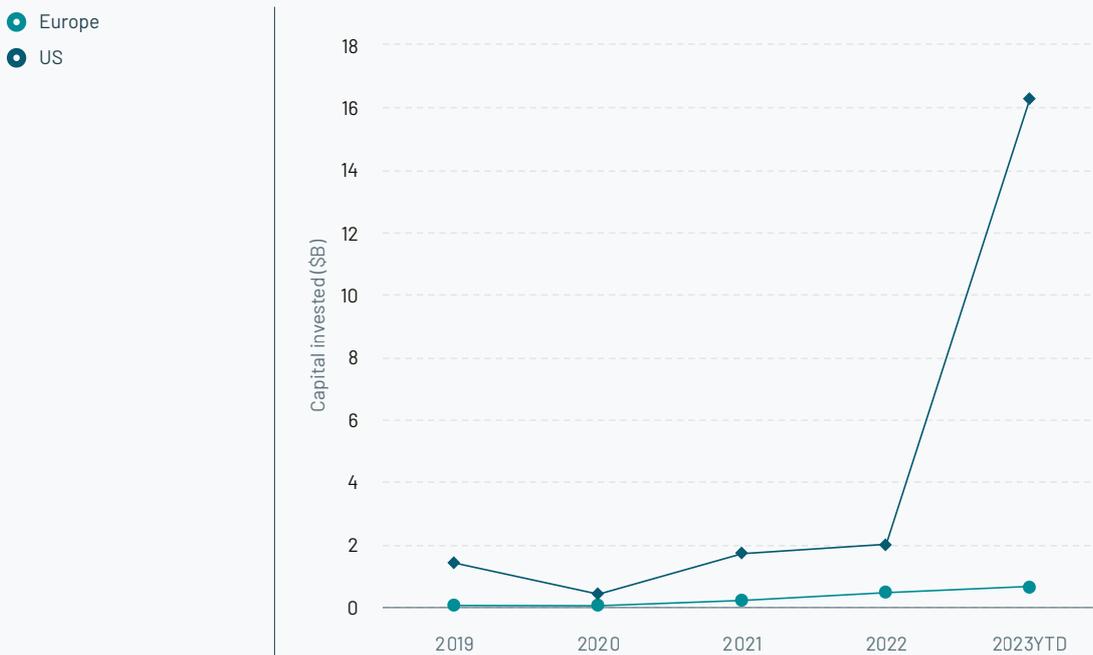
Notes:
Data is as of 30 September 2023.
Excludes the following: biotech,
secondary transactions, debt,
lending capital, and grants.

Sources:  dealroom.co

OpenAI breaking the funding charts

Generative AI companies had seen a relatively slow and steady influx of funding since 2019, reaching peaks in 2022 of \$2B invested in the United States and \$0.5B invested in Europe. Then OpenAI happened. With a whopping \$10B of investment raised in a single round, OpenAI's latest round skyrocketed the theme's total funding in US in 2023 to \$16B. An extreme example of the impact one or two outlier companies can have on the ecosystem.

Capital invested (\$B) in GenAI in respective regions, 2019 to 2023



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources:  dealroom.co

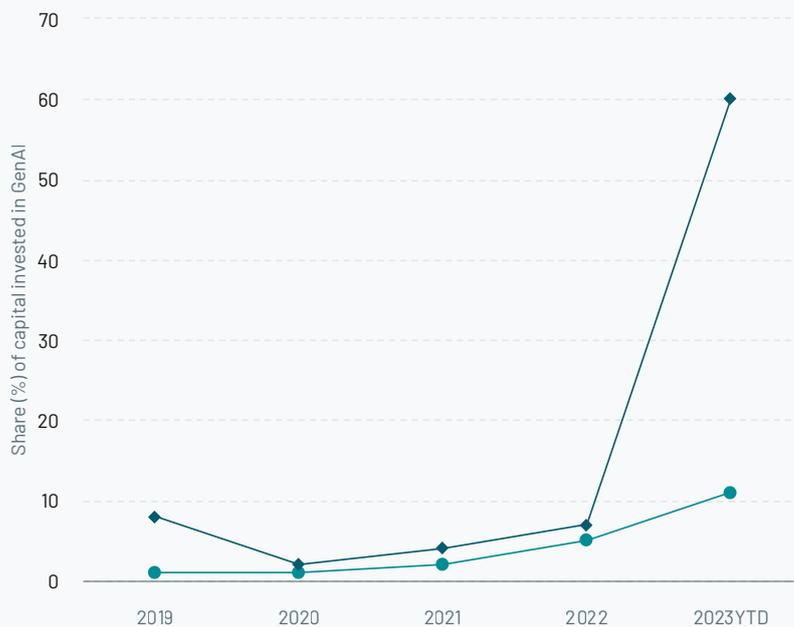
Generative AI taking over 2023

As the most important emerging branch of AI, Generative AI has not only captured the world's attention, but it has also captured a significant share of overall AI investment too.

The share of AI investment specifically allocated to Generative AI companies has taken a major step forward in Europe, hitting 11% in 2023, but a giant leap in the US, where Generative AI now accounts for more than half (60%) of all AI investment.

Share (%) of capital invested in GenAI to total AI / ML capital invested in Europe and US, 2019 to 2023

- Europe
- US



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

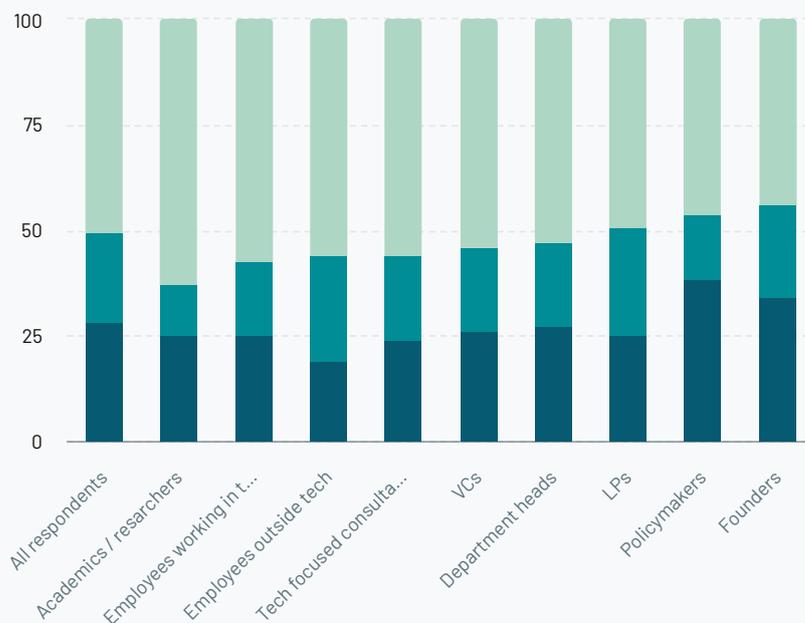
Sources:  dealroom.co

Broad, but not unanimous confidence in Europe's ability to build AI champions

This year's survey checked the pulse on European tech industry sentiment towards the region's ability to build global AI leaders - a question that yielded interesting results. Overall, half the industry is confident that Europe will be able to produce a generation of AI category-leading companies. But this confidence certainly does not extend to all, with 28% of respondents sharing a more pessimistic outlook in their responses. Interestingly, Europe's founders were slightly less likely to take an optimistic view versus other respondent types.

How confident are you in Europe's ability to build global leaders in AI / ML?

- Confident
- Neutral
- Pessimistic



Sources: **STATE OF EUROPEAN TECH** Survey

Notes:
Numbers may not add up to 100 due to rounding.

Talent is flowing to the hardest problems

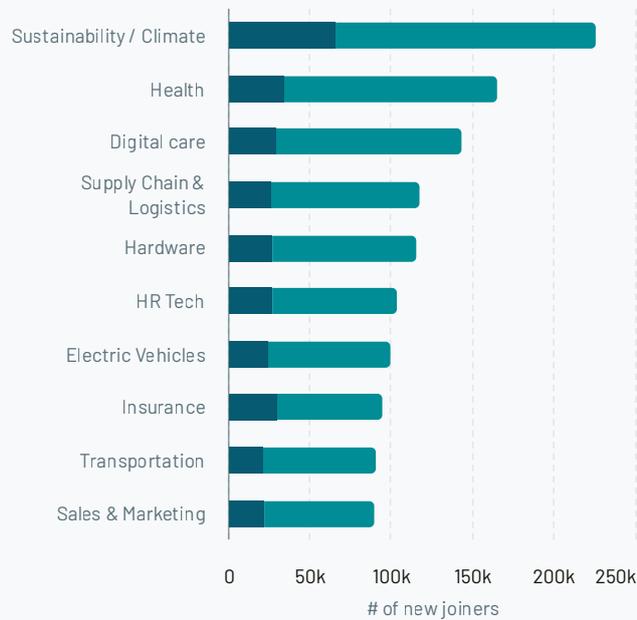
It's one thing to have great talent, but are they working on the hardest problems?

Here, we look at the flow of talent into and within the tech industry, broken down by theme. This helps us to quantify talent flows and identify the sectors drawing in top talent, whether they are completely new to the tech industry or moving jobs within it.

Sustainability and health take the #1 and #2 spots, clearly reflecting the powerful magnetic effect of purpose-led companies in attracting talent.

Top 10 themes by number of new joiners, by type

- New joiners from within tech
- Net new tech joiners



Notes:

To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. 2022 data shown as of 20 September 2023. Companies may be assigned to multiple themes, causing talent to also being assigned to more than one theme.

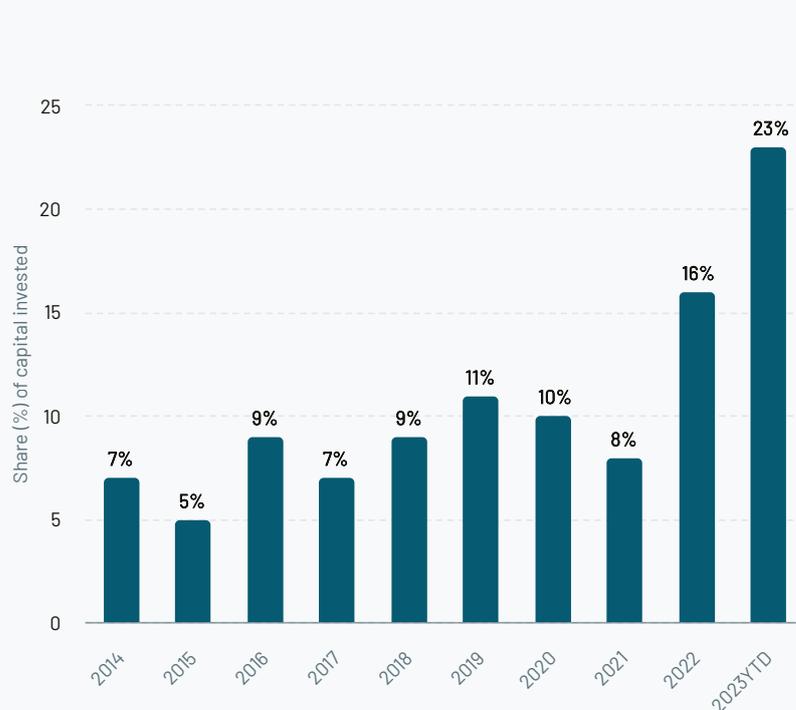
Sources: **atomico** Powered by **revelio labs**

Growth stage companies propel Europe's climate tech funding

Addressing sustainability and climate challenges have become core themes of the European tech ecosystem in recent years, increasing their share of total funding consistently over the past decade. This year's report tracks all companies that label themselves as operating within one of the themes we categorise as directly addressing sustainability or climate, such as Electric Vehicles or Carbon Markets.

As also reported in previous editions of the State of European Tech, Europe has taken centre stage in funding purpose-driven tech. The increase in funding captured this year is also representative of the maturing of these themes, as more Growth-stage companies capture larger rounds of funding.

Share (%) of capital invested that goes to sustainability, 2014 to 2023



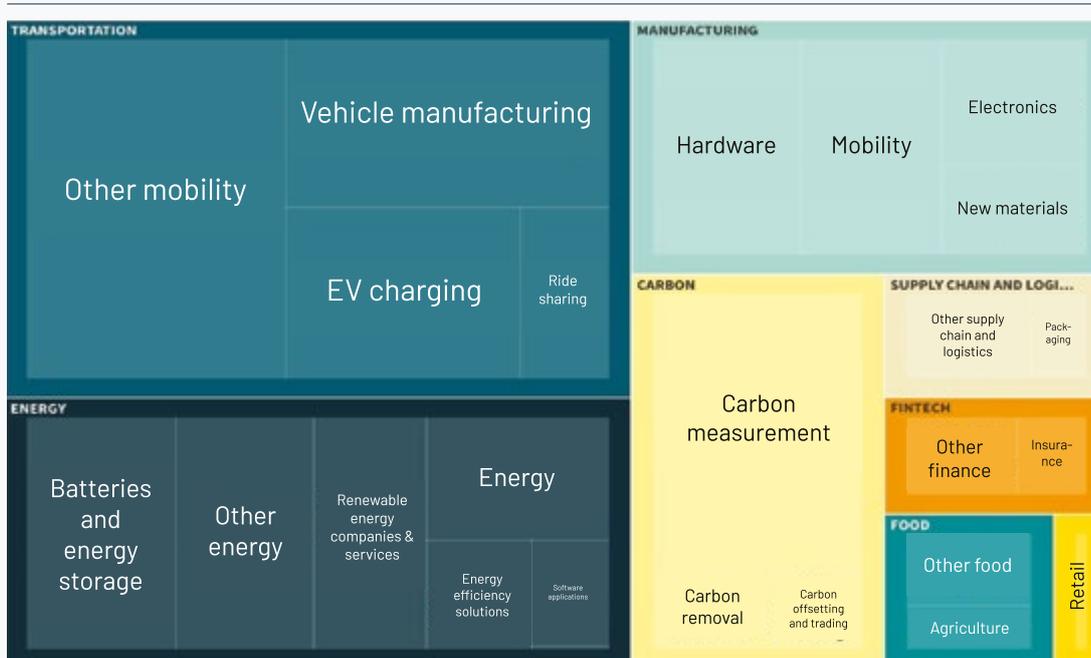
Notes:
2023 data is based on data to September 2023.
Excludes the following:
biotech, secondary transactions, debt, lending capital, and grants.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

Sustainability - an underlying theme for the ecosystem

The Sustainability / Climate theme has matured to an extent that it is now a cross-cutting trend that is transforming a very wide range of sectors. Looking at the distribution of capital invested in 2023, the largest flows of capital under this theme went to the Transportation, Energy, Manufacturing and Carbon sectors. Transportation alone accounted for a third (33%) of all capital invested under the Sustainability / Climate theme in European tech in 2023, followed by Energy (24%).

Share (%) of underlying categories for sustainability, 2023



Notes:
Data is as of 31st of July. Excludes the following: biotech, secondary transactions, dept, lending capital, and grants.

Sources: [atomico](#) Powered by

[dealroom.co](#) [crunchbase](#)



“Europe must elevate its ambition on policy and legislation.”

Shilpika Gautam
Founder & CEO, Opna

To nurture and scale the early-stage climate ecosystem, Europe must elevate its ambition on policy and legislation, innovate on available capital stacks (from the existing valleys of death in startup funding to its growth capital) and make it much easier for startups to do business, across the continent.

Europe is the clear global leader in purpose-driven investment

Most would agree that a key priority for the next decade is to achieve a sustainable future for all. But it's impossible to manage what cannot be measured.

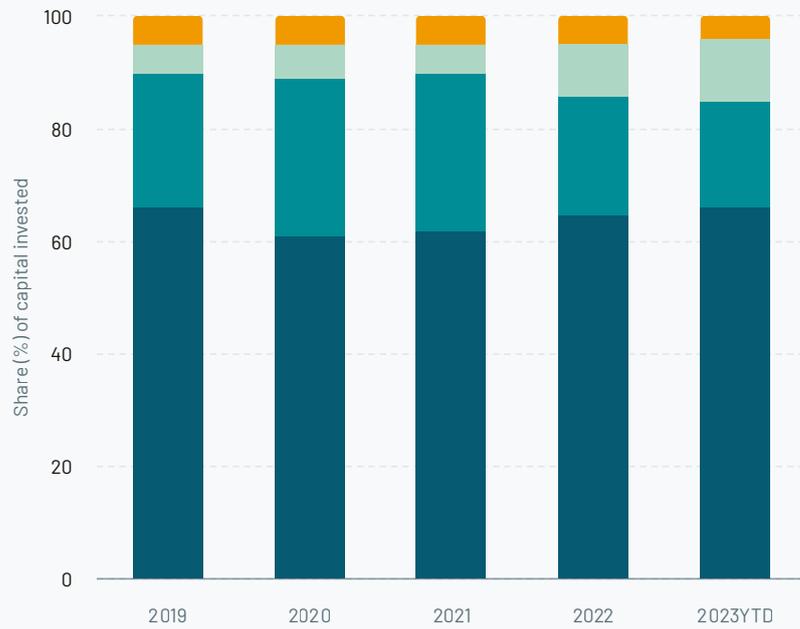
Through a collaboration with Dealroom.co, dating back to 2019, we have been able to quantify the investment into purpose-driven companies, helping us measure progress year-on-year. Under purpose-driven investing, we capture all companies addressing at least one of the United Nations' 17 defined Sustainable Development Goals (SDGs).

Europe's global leadership in purpose-driven investment is now clear. This year, Europe's global share of total capital invested in purpose-driven tech companies leapfrogged the US, taking 41% of worldwide capital invested. Prior to 2023, Europe's share had consistently landed at around a quarter of global investment, so this year represents a significant jump.

Europe's lead on a total capital invested basis now mirrors its longstanding leadership in early-stage investment. Looking at rounds of \$5M or less, a proxy for the Pre-Seed and Seed investment stages, Europe now commands 66% of all capital invested in purpose-driven tech companies globally, maintaining its long-running global market leadership.

Share (%) of capital invested into purpose-driven companies per region, 2019 to 2023

- RoW
- Asia
- North America
- Europe



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources:  dealroom.co

03



Talent

Key findings

Europe's tech scene couldn't exist without its talent. Here, we look at how talent is feeling, what talent cares about, and key employment data, to track the calibre and commitment of Europe's tech workforce.

Layoffs seem to have stabilised

In 2023 to date, tech companies headquartered in Europe have accounted for around 10% of all layoffs globally. However, the data indicates that layoffs in Europe have stabilised since the first half of the year.

Early stage tech is a motor for job creation

Early stage companies account for almost double the number of new joiners to the industry, compared to growth-stage companies.

Europe is a net beneficiary of global talent

More talent is moving across borders to start a new job in European tech than there is talent leaving for other regions - including the US.

Compensation now on top of the agenda

The changing macro environment has created a new set of challenges and priorities for European Tech talent. Hiring, both at the senior and junior level, is no longer a top-ranking challenge for founders, implying a cooling of the heated talent acquisition race witnessed in 2021 and 2022.

In its place, for founders reflecting on the past year and looking at the next 12 months, the challenge of managing compensation now comes in first. This mirrors the current macroeconomic climate, as both companies and employees are feeling the pressure of managing spend, inflation, and the ongoing cost of living crisis.

Interestingly, while working remotely became a common practice in the wake of the Covid-19 pandemic, founders are still grappling with the challenges of managing a remote team. Each company is unique, and finding the best solution for remote team members has been a top-two ranking culture challenge for two years running.

Notably, the challenge of managing layoffs has fallen to the bottom of the list, according to 2023 survey respondents, both in terms of their experiences over the past year, as well as looking forward into 2024.

What have been your company's three biggest people & culture challenges in the past 12 months? And what do you anticipate to be the biggest challenges in the next 12 months?

- Past 12 months
- Next 12 months



Notes:
Numbers do not add to 100 as respondents could choose up to three options. Founder, C-level, and Department head respondents only. Respondents who selected "Other" are excluded from the data.

Sources: **STATE OF TECH** EUROPEAN Survey



Great leadership - at all levels of the business - is the defining factor for companies looking to navigate these issues.

Geraldine MacCarthy
CRO, Personio

These challenges are understandable and sometimes overwhelming to businesses that have not faced them before. Senior leadership should learn from peer companies and HR experts to build clear frameworks and systems that guide teams in how to respond to trends like these. And, importantly, they should share these to all managers, upleveling the entire team. To do this, there should be the right infrastructure in place to allow companies to cascade this through their teams. This means having the right systems, processes and culture to allow each business to make appropriate decisions. This is exactly the sort of foundational work that separates the “great” from the “good” - and the clarity and empowerment it provides to employees is in itself a massive contributor to an excellent culture.

Moving past the worst of it

The change in sentiment around layoffs seen in our survey results is also reflected in industry data on the volume of publicly-disclosed layoffs.

The latter half of 2022 and the early months of this year marked the most challenging period for employees in the tech industry. A direct response to the financial downturn is evident in the increased number of layoffs during that period. By the end of this year, globally almost 300,000 employees will have been impacted.

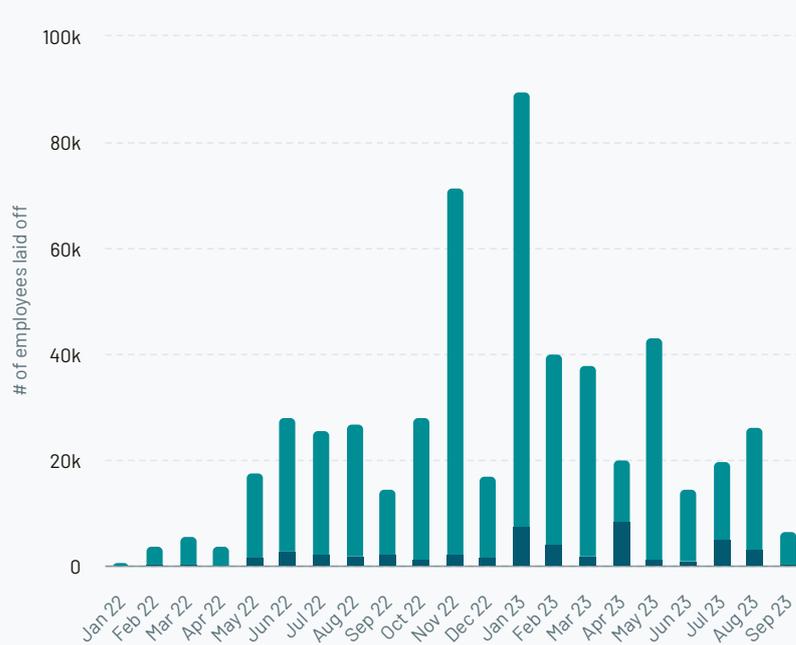
This global phenomenon has, of course, been severely felt in Europe. A large number of European startups have had to downsize their workforce to control costs and manage their runway. In 2023 to date, tech companies headquartered in Europe have accounted for around 10% of all layoffs globally.

It's important to note that these figures do not tell the full story, as many announcements on layoffs do not disclose specific numbers of impacted employees, and even more rounds of redundancies go unreported.

Nevertheless, the data underlines the fact that layoffs in Europe have shown signs of stabilising since the first half of the year. That being said, elevated layoffs should still be expected into 2024, as further companies fail to secure the funding or growth needed to sustain current cost levels.

Number of tech employee layoffs announced per month, Jan 2022 to Sep 2023

- RoW
- Europe



Sources: LAYOFFS TRACKER

Notes:
Data is as of 30 September 2023.

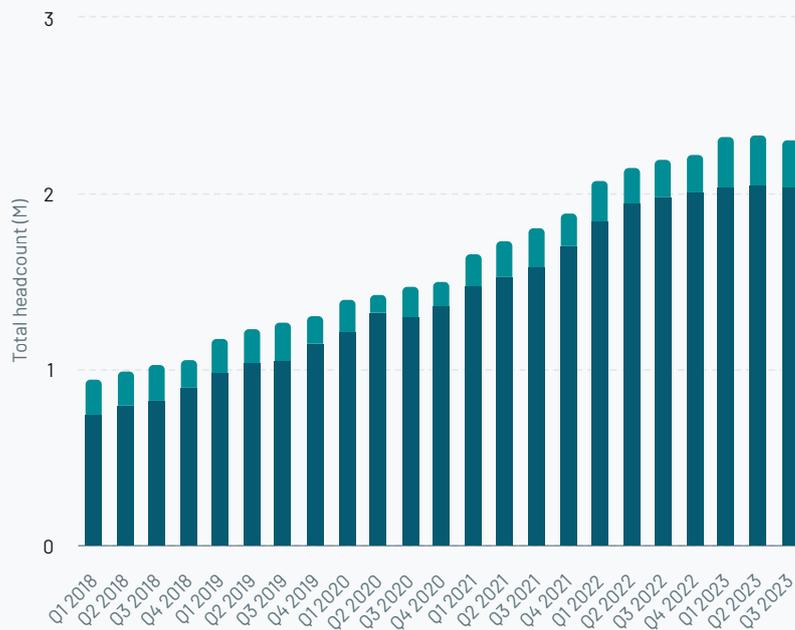
Tech continues its pull on talent

Even in the face of challenges in the capital markets and concerning indicators such as layoffs, European tech is not losing its strong appeal to talent and is not seeing any type of mass exodus of talent out of the industry. In fact, new positions are constantly being created, and the brightest and best talent continues to place significant bets on the European tech sector.

Although there has been a levelling off in the rate of increase of net new joiners into the tech industry over the past three quarters, it's remarkable that in just five short years, European tech has expanded its workforce from slightly over one million employees to more than 2.3 million today.

Total European tech industry employees by quarter, 2019 to 2023YTD

- New non-tech joiners
- Headcount



Notes:
To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. Data is as of 20 September 2023, thus Q3 is incomplete.

Sources: **atomico** Powered by **revelio labs**

Deepest ever talent pool

Although there has been a slowdown in the number of net new joiners into the tech industry over the past six quarters, it's remarkable that in just five short years, European tech has expanded its workforce from slightly over 750,000 people to 2.3 million today.

2.3M+

Tech employees in Europe

Source

atomico^o

Powered by

revelio labs



Europe is now home to a rich talent pool of skilled engineers, scientists and researchers, and recent collaborations between academia and industry have led to groundbreaking advancements in various tech sectors, especially climate tech and AI.

Namrata Sandhu

Founder & CEO, Vaayu

Hubs like the UK's Silicon Fen and Silicon Allee in Germany are gaining international recognition, serving as magnets for innovators from all over the world. Continuing to foster international partnerships will consolidate Europe's position, building on its strengths in innovation and talent.

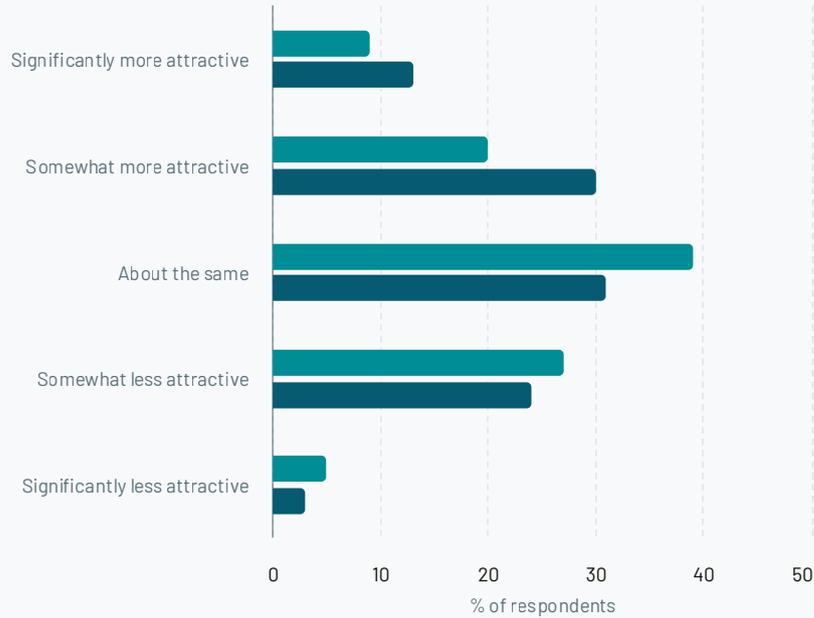
Tech continues to sparkle for many employees

Inevitably, a challenging macro backdrop for European tech has taken some shine off the perceived attractiveness of working in the industry. Around a third of all respondents (32%) feel that it is less attractive to work for a European tech company compared to 12 months ago.

It should be said, however, that for a meaningful share of respondents, today's set of market conditions actually make for a more attractive time to be working for a European tech company. Despite conditions that have led to mass layoffs, nearly a third (29%) of respondents say that conditions have become more attractive over the course of the year, though this has decreased from 43% of respondents in 2022's survey.

How attractive do you think it is to work for a European tech company, specifically at the stage your startup is at now, compared to 12 months ago?

- 2023
- 2022



Notes:
 Founder, C-level, Department head and Employee respondents only. Respondents who selected "Other" are excluded from the data.

Sources: **STATE OF EUROPEAN TECH** Survey

Early stage is a motor for job creation

The growing magnetism of the European tech ecosystem is reflected in the number of new joiners at European tech companies coming from other sectors.

The hiring curves seen in recent years mirror fluctuations in tech ecosystem sentiment. 2021 witnessed a surge in new hires, most notably within growth-stage companies. The market reset then caused hiring to flatline at many companies throughout 2022. 2023, to date, has seen the number of new joiners to the tech industry grow in record volumes, a reflection of the absolute scale of the ecosystem in aggregate now, as opposed to a dramatic acceleration of growth at the individual company level.

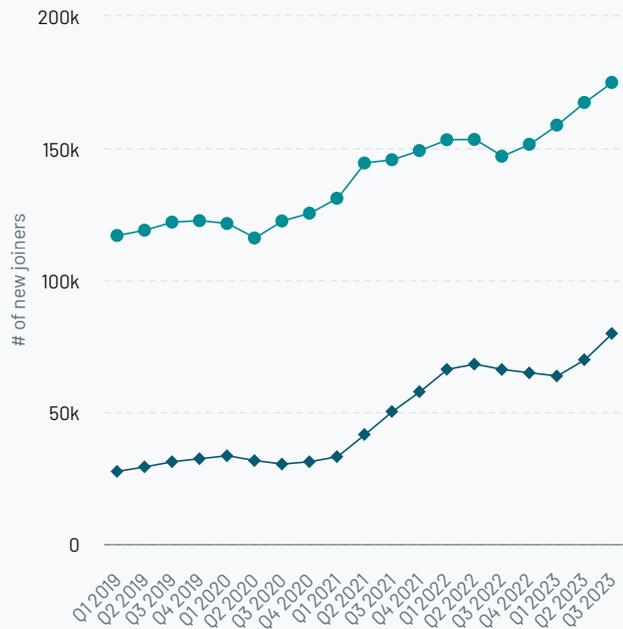
Perhaps the most surprising data here, however, is the difference in the absolute volume of new joiners between early-stage and late-stage companies. While growth-stage scale ups are important contributors to

employee growth within the ecosystem, it is the proliferation of early-stage startups that represent the true engine of job creation. Indeed, early-stage companies typically account for almost double the number of new joiners to the tech industry in each period, compared to growth-stage companies.

This year so far strikes an optimistic tone, with new hirings on a clear climb in the earliest stages and the growth stage also starting to pick up pace.

Trailing 12-month amount of new joiners for European tech companies by hiring company stage, 2019 to 2023

- Trailing 12 months, early stage
- Trailing 12 months, late stage



Notes:
Data is as of 20 September 2023, thus Q3 is incomplete. Excluded non-vc, exit related and no prior funding companies.

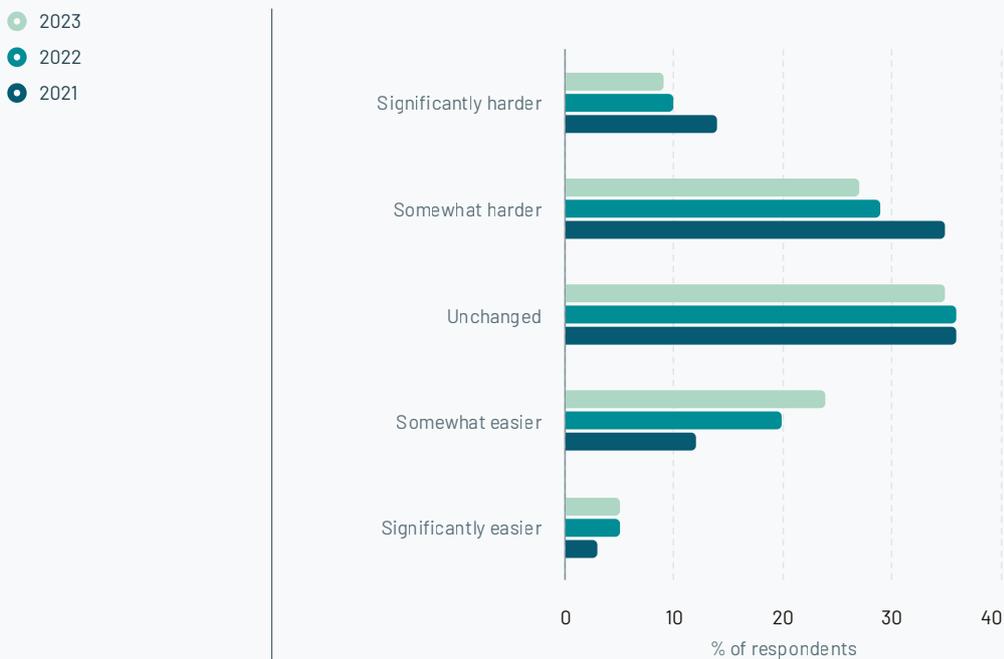
Sources: **atomico** Powered by **revelio labs**

Pressing pause on the talent war

Signs of the talent market easing are reflected in founder sentiment on their experience of acquiring new talent. The share of founders that perceive the acquisition of talent to have eased in the past 12 months increased this year to 30% of all respondents, a material increase from 25% in 2022 and, in particular, from 15% in 2021 at the height of the overheated talent market.

That said, for some founders it is still proving challenging to attract the talent they need. 35% of founder respondents said hiring conditions have become harder over the past 12 months, though this is down from 49% of respondents in 2021.

Compared to 12 months ago, how easy or difficult is the acquisition of new talent now?



Notes:
Founder, C-level, and Department head respondents only. Respondents who selected "I don't know" or "No opinion" are excluded from the data.

Sources: **STATE OF EUROPEAN TECH** Survey



The prevailing trend in the current job market is a reduced emphasis on aggressive hiring practices, which has made talent retention considerably more feasible.

Juan Urdiales
Co-Founder & CEO, Job&Talent

Yet the challenge of recruiting top-tier talent remains as daunting as ever. Strong leaders and talent are deeply committed to their current organisations, and given the challenging climate within our industry, it's difficult to persuade them to consider alternative opportunities. Employee engagement and wellbeing have become more crucial than ever for attracting and retaining talent. In an era where talent is in high demand, the organisations that prioritise the well-being, growth, and satisfaction of their employees are the ones that will ultimately thrive and build lasting relationships with their workforce.

For many it is now less attractive to become a founder

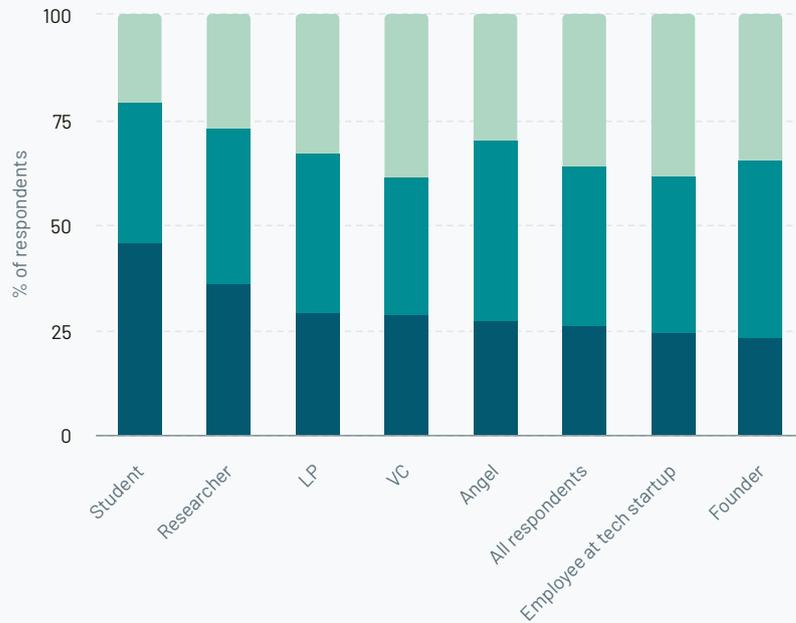
Taking the leap to become a founder has never been an easy decision, with the changing macro environment posing challenges to even the most experienced builders.

Unsurprisingly, perceptions around becoming a founder now compared to a year ago have shifted negatively. On average across the ecosystem, more (36% of respondents) see the prospect of being a founder today as less attractive than it was a year ago (versus 26% of all respondents that perceive it is now more attractive). Founders themselves are even more likely than other respondents to say there has been a negative change year on year. Meanwhile, students and researchers are the most optimistic respondent group.

It is more important than ever to ensure that new founders have the support they need and that the European ecosystem maintains a healthy influx of new funding talent, especially since today's market conditions actually create an environment to build a company where there is less noise, less competition and greater access to potential talent.

How attractive do you think it is to become a founder of a European tech company now compared to 12 months ago?

- Less attractive
- About the same
- More attractive



Sources: **STATE OF EUROPEAN TECH** Survey

Notes:
Numbers may not add up to 100 due to rounding.

Diverse challenges define modern entrepreneurship

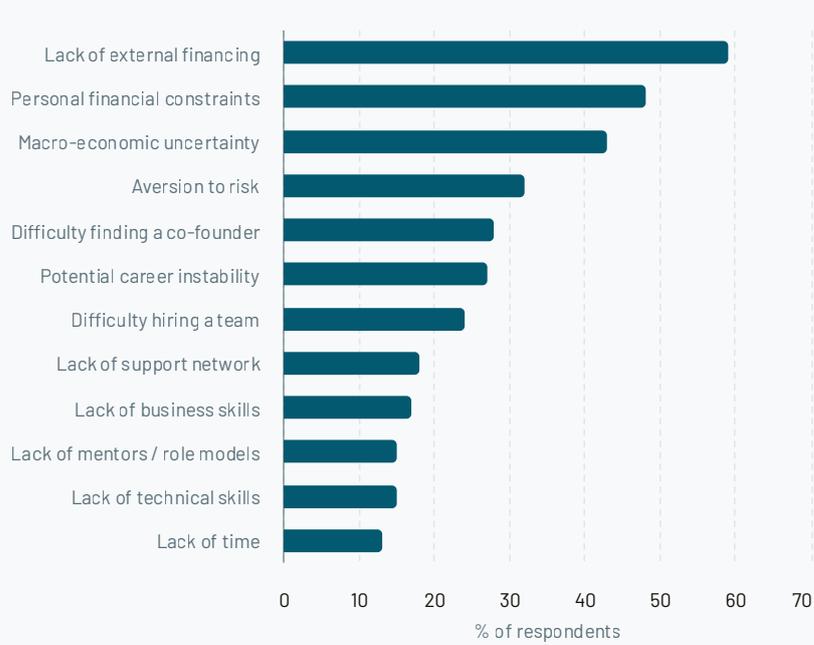
Taking the leap into entrepreneurship is one of the bravest and most challenging choices one can make. Anybody starting a company, at any time, has to embrace a journey of enduring risk, sacrifice, and personal challenges along the way.

That is why it's essential to remove barriers to entrepreneurship to unlock latent talent that has the potential to succeed. To explore this, we asked survey respondents this year to share their perceptions of the greatest barriers for founders looking to start a company in Europe today.

The top responses are a lack of access to external financing (59%) and personal financial constraints (48%), followed by the uncertainty created by the macro backdrop (43%). This aligns with findings explored else-

where in the report that show that the market reset has led to a slowdown in the rate of new tech startup creation. Given the scale of financial barriers, entrepreneurship is a luxury for those that can afford to pursue it. It is little wonder that this leads to risk aversion being cited by many (32%) as a factor in blocking potential founders from starting a company.

What are the main barriers for founders looking to start a company today?



Notes:
Founder and C-level respondents only. Respondents who selected "Other" are excluded from the data

Sources: **STATE OF EUROPEAN TECH** Survey

Talent movements feed the ecosystem

Europe is an attractive destination for tech talent. Looking at the talent moving across borders to start a new job in European tech, it's clear that employees tend to follow the money.

Countries that have raised the largest amount of funding, such as the United Kingdom, France, and Germany, tend to also attract most foreign talent. This makes sense as rapidly growing companies need this influx of employees to keep expanding.

Interestingly, there are a few outliers to this trend. Switzerland, Sweden, and Norway stand out as relatively underweight in net new talent entering the country vs. the volumes of funding raised. Language skills and immigration law may be barriers for relocation to these countries.

Europe is a net beneficiary of talent movement, with all top countries as well as rest of Europe each year seeing more talent enter than depart thanks to attracting employees from overseas.

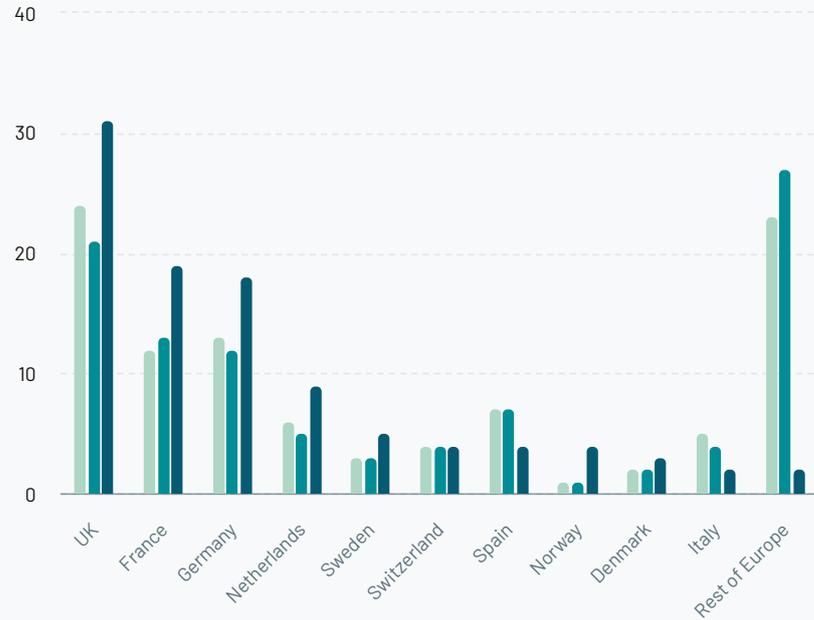
However, digging more into the numbers clustered under 'Rest of Europe', it becomes evident that the top funded countries are attracting talent away from smaller European ecosystems. While Ukraine was already seeing a net negative flow in talent historically, this was exasperated by the war, with tech talent leaving the country at an unprecedented scale. Other European countries suffering from significant brain drain are Belarus and Hungary.

While it is tempting to create a negative narrative around talent leaving their home countries, the so called "brain drain" does ultimately benefit the European ecosystem. Talent mobility is important to allow for cross-fertilisation as new talent brings with it a new perspective and a wealth of experience.

Share (%) of talent arrival in Europe per country and total funding raised (%) in Europe, 2023

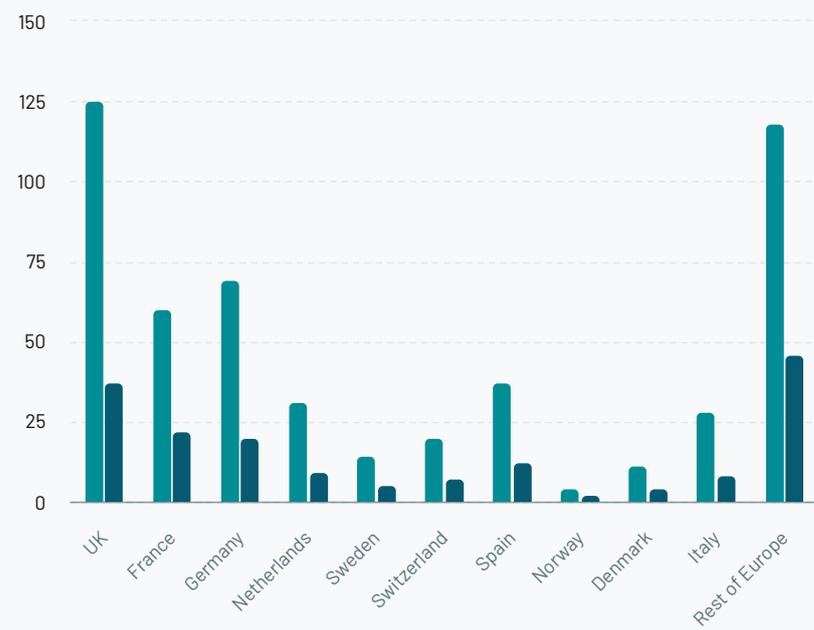
- Arrival %
- Departure %
- % of funding

% of arrivals and departures



- Talent arrivals
- Talent departures

Absolute arrivals and departures



Notes:
To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. 2023E is based on data adjusted for lag effect and extrapolated based on data as of 20 September 2023. Arrivals measured as employees joining tech companies only, but could have previously worked at either non-tech or tech companies.

Sources: **atomico** Powered by **revelio labs**

iD **dealroom.co** **crunchbase**

Top talent migration flows

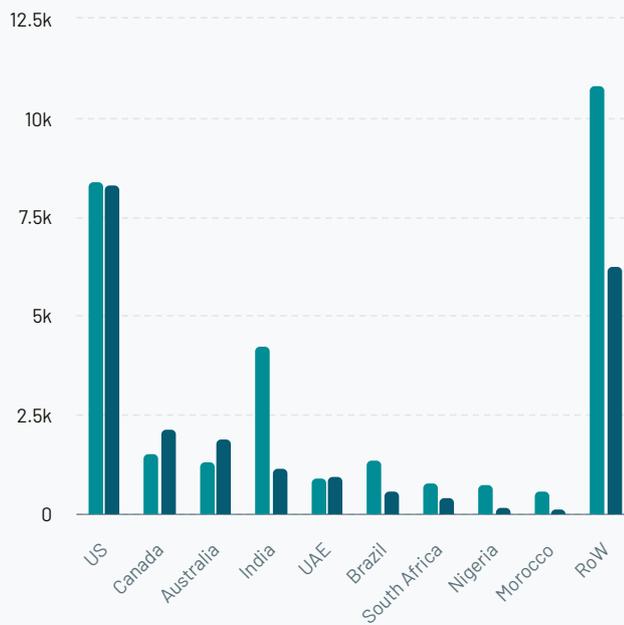
Talent movement is healthy for the tech ecosystem as employees learn and become more valuable with every new experience, and Europe is a net beneficiary of this movement.

While most of the European talent that leaves the continent goes to the United States, Europe is also a huge talent magnet for tech talent from the US, and attracts the same amount back, on average netting out slightly in the green.

The somewhat usual suspects Canada and Australia are destinations where Europe is the most net negative. Meanwhile, India is powering Europe with thousands of tech workers, and - somewhat surprisingly - Brazil is the next biggest net contributor to talent inflows to Europe.

Net balance of arrivals to and departures from Europe, 2023

- Arrivals to Europe
- Departures from Europe



Notes:
Data for 2023 only, where an arrival has taken place on or after 1 January 2023. Arrivals measured as employees joining tech companies only, but could have previously worked at either non-tech or tech companies. Data is as of 20 September 2023.

Sources: **atomico** Powered by **revelio labs**

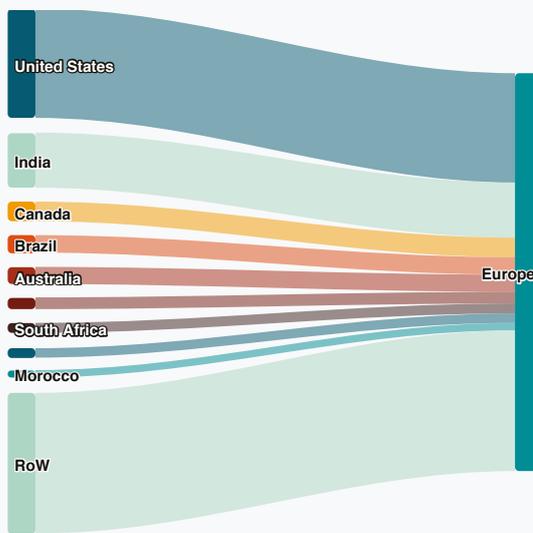
The movement of talent across borders

Europe is a net beneficiary of talent flows, attracting new starters from across the globe. That means we're gaining more international talent than we're losing.

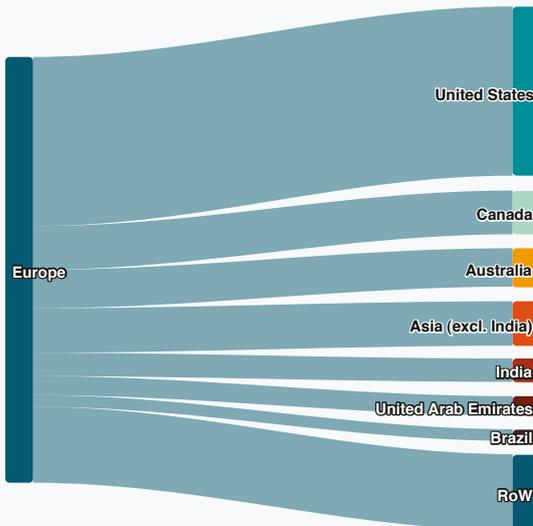
Notably, more talent is moving from the US to work in European tech than European talent is moving to join the US tech scene. It really illustrates the pull our companies now have. In fact, Europe is a net gainer from essentially every single region, apart from Australia.

Global tech employee arrivals to Europe, 2023

Arrivals to Europe



Departures to Europe



Notes:
Data for 2023 only, where an arrival has taken place on or after 1 January 2023.
Arrivals measured as employees joining tech companies only, but could have previously worked at either non-tech or tech companies. Data is as of 20 September 2023.

Sources: **atomico** Powered by **revelio labs**



This global influx introduces a myriad of skills and perspectives that challenge the status quo and spark innovation.

Wouter Durville
Co-Founder & CEO, TestGorilla

The movement of talent across borders and into the European tech scene is a testament to the power of skills-based hiring. When you hire based on skills and abilities, you create a diverse and robust talent pool, equipped to navigate the complexities of today's tech landscape. This diversity is essential for fostering a culture of creativity and driving forward the technological prowess of Europe on the world stage. By focusing on what truly matters – skills, not just experience or education – European tech companies can harness the full potential of the global talent pool and remain competitive in an increasingly dynamic industry.

The European tech sector attracts the world

While talent is arriving to and leaving Europe, the continent nets out positive. With an impressive influx of non-European tech talent, Europe's tech sector continues to expand and attract global expertise.

European tech is a net talent winner

10k+

net new people joined the European tech scene in 2023.

Source
revelio labs

Europe outpaces US in new tech founders despite global slowdown

The impact of the market reset is also visible in the effects on entrepreneurship and the rate of new company formation by founders. Globally, the rate at which founders are starting new tech companies has receded by approximately 30% from its peak in 2020, with this decline reflected in the data for new tech founders in both Europe and the US.

While a decrease in new companies being founded might appear concerning at first glance, there is a case to be made that this reflects a return to 'healthier' conditions.

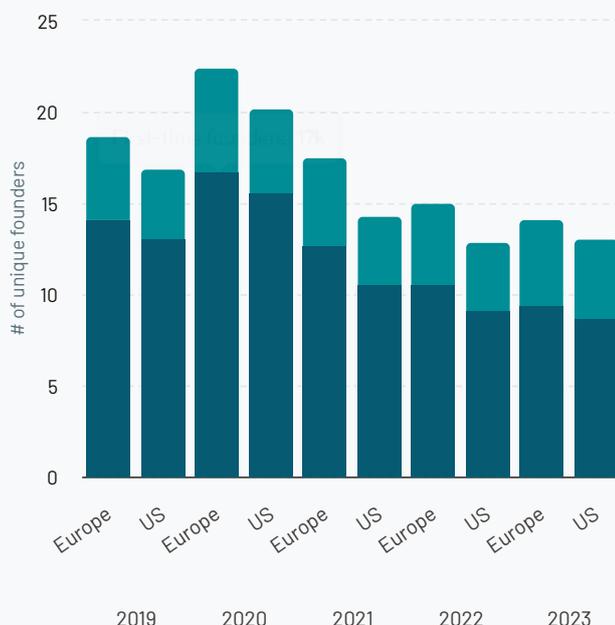
Those who are taking the leap into entrepreneurship today face a higher bar to raise money, attract talent, and win customers. This changes the perceived risk of starting a company and, as a consequence, has the effect that only the most committed and resilient founders are prepared to embark upon the entrepreneurial journey.

Subsequently, it is not surprising to see the share of repeat founders remaining stable, while almost all the decline is accounted for by fewer first-time founders.

What will, however, be surprising to most is the fact that the annual volume of founders starting new tech startups in Europe exceeds the US, and has done so consistently for every one of the past five years.

Number of first-time and repeat founders starting new companies per year, 2019 to 2023

- Repeat founders
- First-time founders



Notes:
To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. 2023F is based on data adjusted for lag effect and extrapolated based on data as of 20 September 2023.

Sources: **atomico** Powered by **revelio labs**

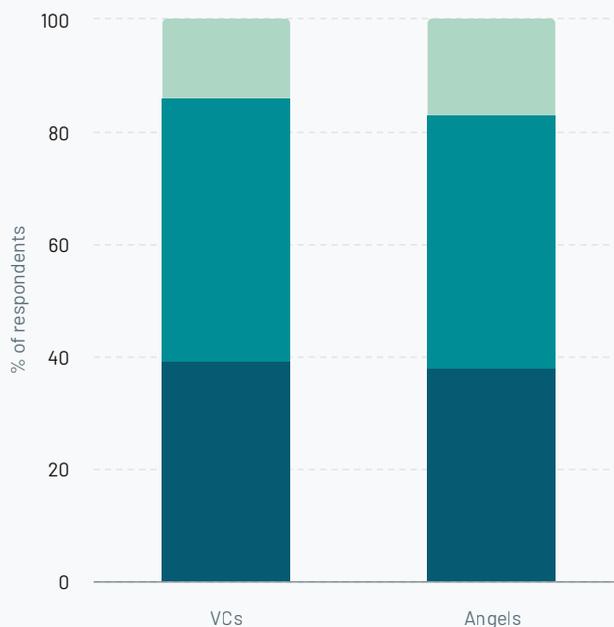
Teams coming to market continue to be of high quality

The idea that a tough macro environment has a Darwinian effect on the startup landscape - where only the fittest survive - is reflected to some extent in investors' sentiment on the quality of opportunities they have evaluated in 2023 compared to 2022.

39% of venture capital investors and 38% of angel investors stated in the 2023 survey that the average quality of founding teams they have taken into due diligence is greater this year compared to last. Just 14% of VCs and 17% of angels had the opposing perspective.

How does the average quality of founding teams you have diligenced so far in 2023 compare to that of last year's?

- Lesser
- No change
- Higher



Notes:
VCs and angel respondents only. Respondents who selected "Unable to comment / Do not know" are excluded from the data.

Sources: **STATE OF EUROPEAN TECH** Survey



We have a remarkably diverse talent pool. Europe's rich diversity of cultures and backgrounds has created a vibrant and dynamic ecosystem.

Jordi Romero
Co-Founder & CEO, Factorial

The legacy of talent coming from companies that have managed to have an impact globally over the last few years is creating great network effects, which is playing a multiplying role in the European tech ecosystem. The improvement in the volume, and quality, of capital for tech companies in Europe is having a huge impact, and has opened the possibility to build global companies from Europe end to end.

Reflecting on Skype's 20th anniversary

A single success story can have an outsized impact on the tech ecosystem. This is exemplified by Skype, co-founded 20 years ago by the CEO of Atomico, Niklas Zennström.

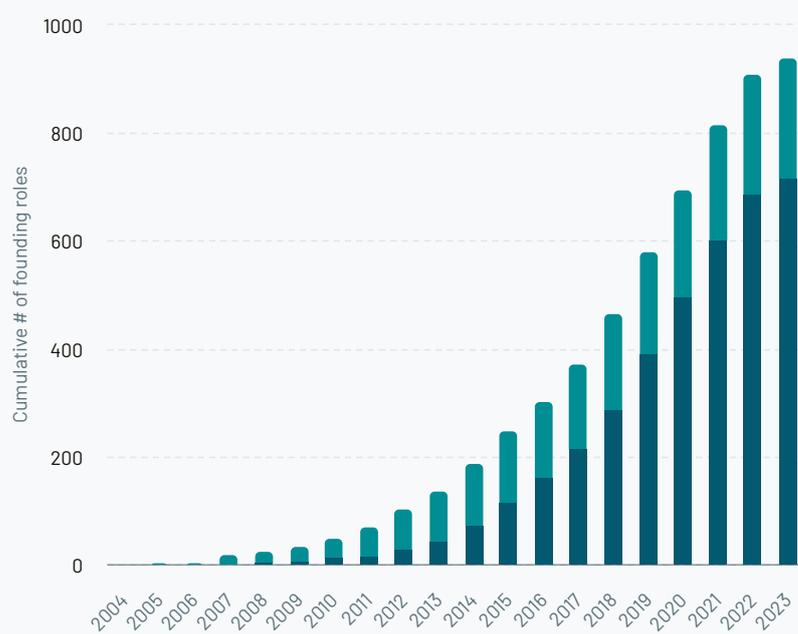
Skype's workforce absorbed a culture of innovation and subsequently went on to start Europe's next generation of leading tech companies. In total, the first- and second-generation entrepreneurs that emerged from Skype's alumni network have gone on to start more than 900 companies across 50 countries around the world.

This alumni network has already produced additional billion-dollar companies and, today, Skype alumni companies employ more than 65,000 people worldwide.

It's astonishing to witness the ecosystem-level effect that a single, game changing company can have over time.

Cumulative number of founding roles across the Skype ecosystem, 2004 to 2023YTD

- 1st Generation (Post-Skype)
- Next Generations



Sources: **atomico** Powered by **dealroom.co** **crunchbase**

Notes:
Data is as of 20 September
2023.

The outsized impact of Skype

The initial experience at Skype acted as a launchpad for diverse entrepreneurial ventures. The visual below illustrates a fascinating network of innovation and entrepreneurship stemming from a single origin point, Skype. What this represents is the powerful impact that a successful and influential company can have on its ecosystem.

The individuals who have branched out from Skype, the “next-generation founders”, are leveraging their expertise to shape the future of their respective industries. The various companies emerging from Skype demonstrate the diversity in expertise and talent represented.

The visualisation represents that innovation doesn’t stop with one successful company. It has a ripple effect and continues to boost the European tech flywheel well after it’s first established.

Skype network visualised

950
companies

65k
employees

50
countries



Notes:

Brand on public LinkedIn profiles only and companies defined "tech" as per Atomico's proprietary taxonomy model; Nodes size represent total capital raised by companies, VC funds are not sized according to their AuM. Data as of 20th of September 2023.

Sources: **atomico** Powered by



dealroom.co

crunchbase



Europe's strength is its unrivalled commitment to innovation, its wealth of talent and its strong focus on solving the world's most pressing challenges.

Anna Humphrey

Partner, Compensation and Benefits, Orrick

The surge in new companies led by serial founders – many of whom are alumni of European unicorns such as Skype or BlaBlaCar – is creating a network effect that can propel Europe into being the next tech superpower.

Talent flywheel accelerating with unicorn alumni

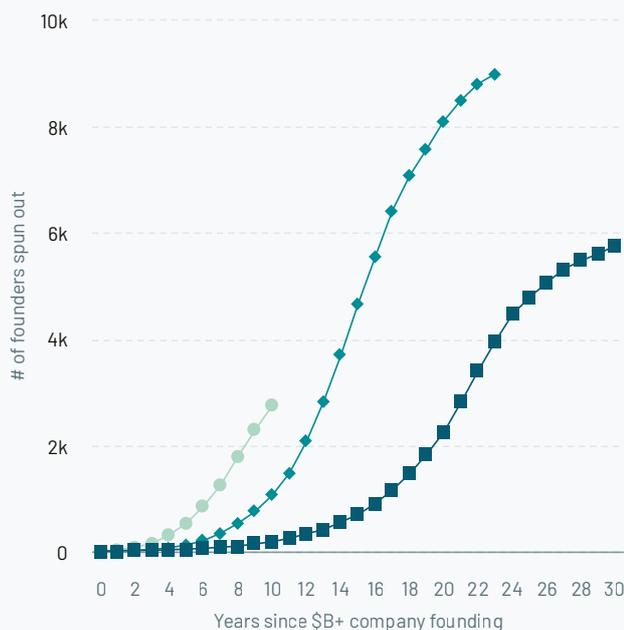
The story of Skype is far from unique in Europe today. In fact, the European tech ecosystem has witnessed an industry-wide surge in the number of new companies launched by individuals that have spun out of Europe's billion-dollar companies. In doing so, they benefit significantly from the established knowledge and networks they take with them.

Remarkably, more than 9,000 companies have been initiated by alumni of European exited unicorns that were founded during the 2000s. To put this into perspective, it is nearly a staggering 50% increase compared to the unicorns founded in the 1990s.

It is not difficult to imagine how this network effect will significantly influence Europe's path in the next ten years.

Number of new 1st and 2nd generation founders spun out from exited European unicorns, by unicorn founding decade and years since founding

- 2010s
- 2000s
- 1990s



Notes:
Based on founders attributes and the date they indicated starting their company.

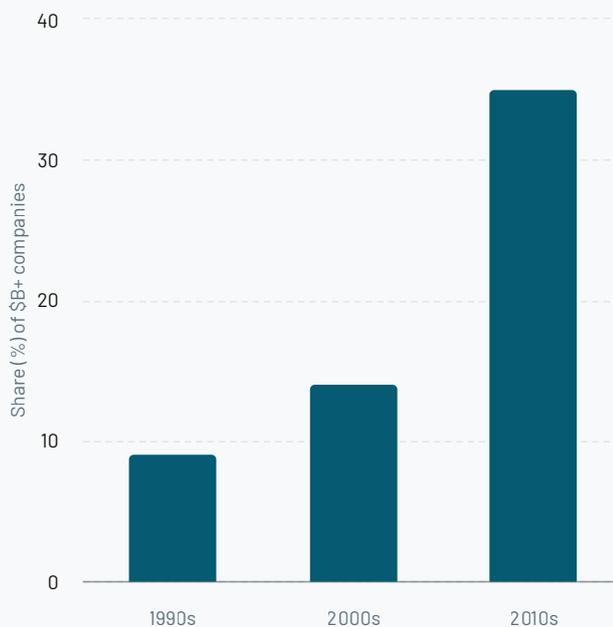
Sources: [atomico](#) Powered by [revelio labs](#)

Learning from experience

In the earliest days of the European tech ecosystem, the notion of fundraising and building billion-dollar tech companies were all relatively new, and often niche. Unsurprisingly, the average founding team composition in those days was also typically composed mostly of tech ‘newbies’. Over the decades that have followed, and as a growing number of early success stories emerged, the prevalence of founding teams with prior entrepreneurial experience has spiked materially.

Looking at billion-dollar companies started in the 1990s, for example, just 9% of the founders of those companies had prior entrepreneurial experience before they created these companies. By the 2010s, this figure exploded by more than four times to hit 35%.

Share (%) of \$B+ companies with founding teams made up of at least one repeat founder, by \$B+ company founding decade



Notes:
Data is as of 20 September 2023. Based on founders attributes and the date they indicated starting their company. We are limiting the analysis to European founders and excluded “non-tech” companies as defined by Atomico’s proprietary classification model. Included only founders with previous experience in starting a company, not a foundation, venture capital firm, charity or similar.

Sources: **atomico**

Introducing “STAR”, our data driven assessment of team quality

In spite of a recent slowdown in the volume of new company creation, entrepreneurship has exploded across Europe over the past decade. Europe’s never had a deeper and stronger bench of founder talent.

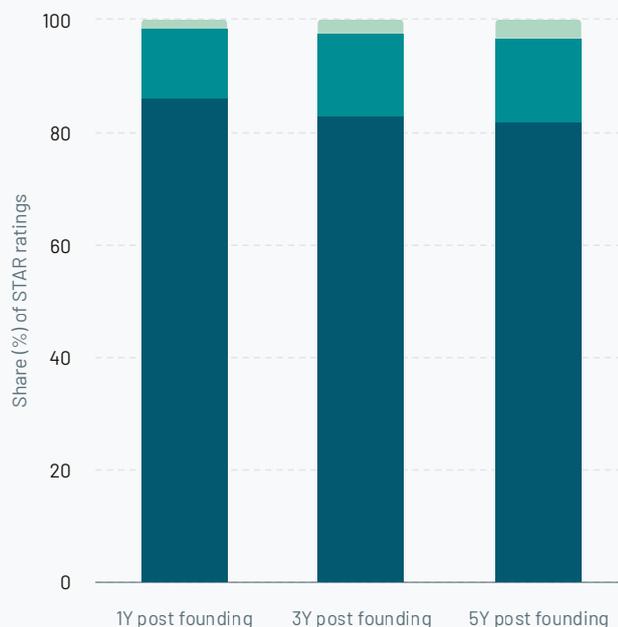
But it takes more than just exceptional founders to build a successful breakout company. It takes a whole team of exceptional leaders, and the ability to attract and retain top talent is a crucial factor in determining the success of any founding team. And thanks to the growing depth of Europe’s talent pool, there’s never been a stronger base of talent to help build the current and next generation of European tech companies.

This year, we set out to quantify this with data by developing a proprietary rating called STAR (Startup Talent Attraction Rating) to objectively assess the quality of teams by evaluating the excellence of their senior hires. We’ve done this with a particular focus on the strength and relevance of their professional networks, as research indicates network quality can drive commercial success. Hence, the team rating uses co-employment networks to map employees’ movement between companies.

As you’d expect, if you look at the total universe of all tech startups created in any given year, very few ever succeed in building a truly exceptional team, especially in the initial years post-founding. In fact, only around 2-3% of the total count of tech startups are rated as exceptional by this measure, even five years post-founding.

STAR ratings (0-10) distribution (%) for European tech companies founded after 2010*

- Exceptional (5+)
- Very good (3-4)
- Standard (0-2)



Notes:
The STAR rating uses co-employment networks to map employees’ movement between companies. Data is as of 20 September 2023.

Sources: **atomico** Powered by **revelio labs**

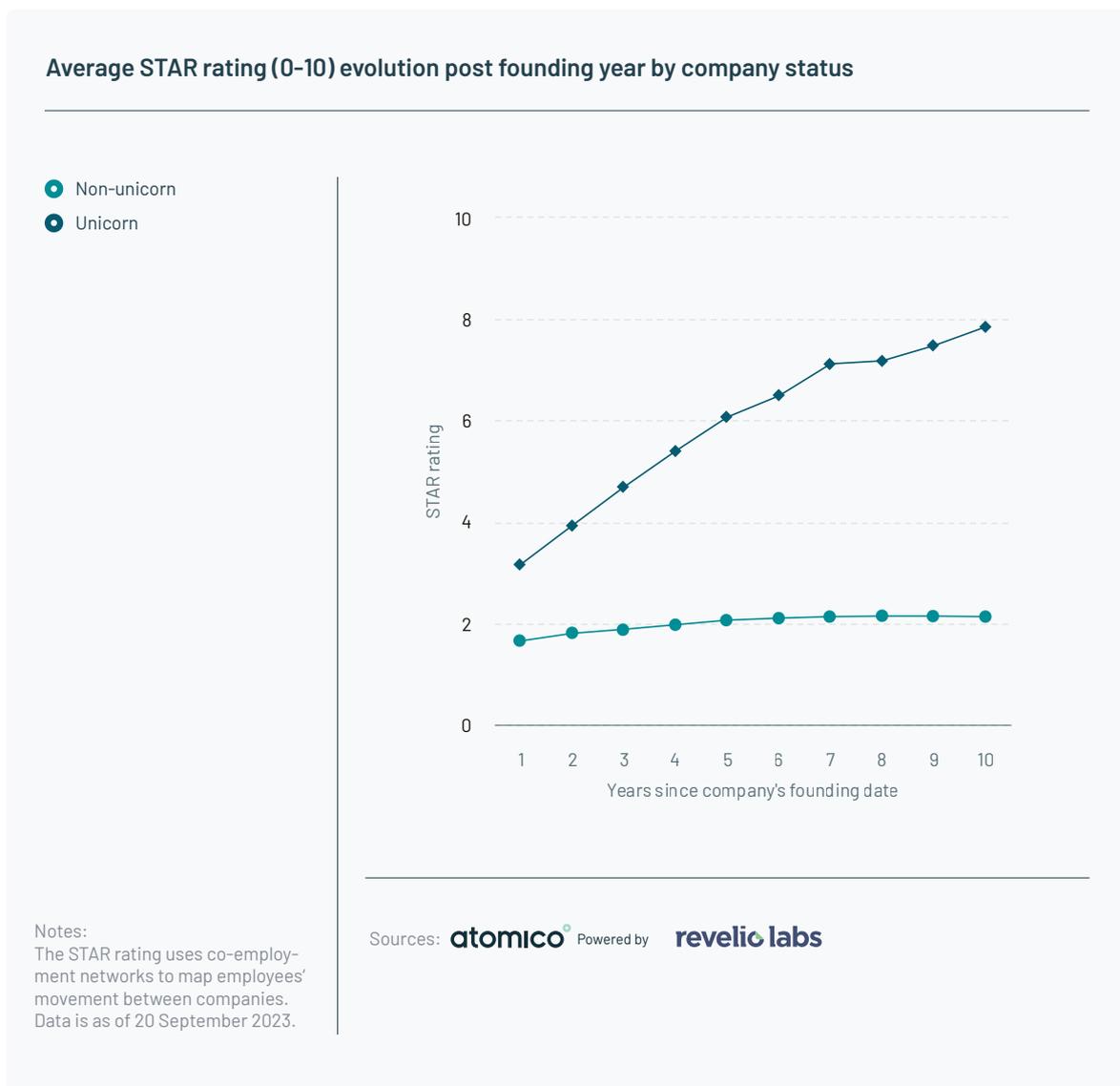
Team strength as a key indicator separating unicorns from the rest

The STAR score itself is intuitive. The higher the score, the stronger the team that has been assembled.

This is brought to life when comparing the evolution of team scores over time for those companies that succeed in reaching a billion-dollar valuation vs. those that do not.

As illustrated in the chart, billion-dollar companies start their journeys with stronger teams right from the earliest years post-founding, and go on to build stronger and stronger teams over time.

Of course, there's no such thing as guaranteed success when it comes to startups, but this indicator is a helpful tool.



atomico **revelio labs**

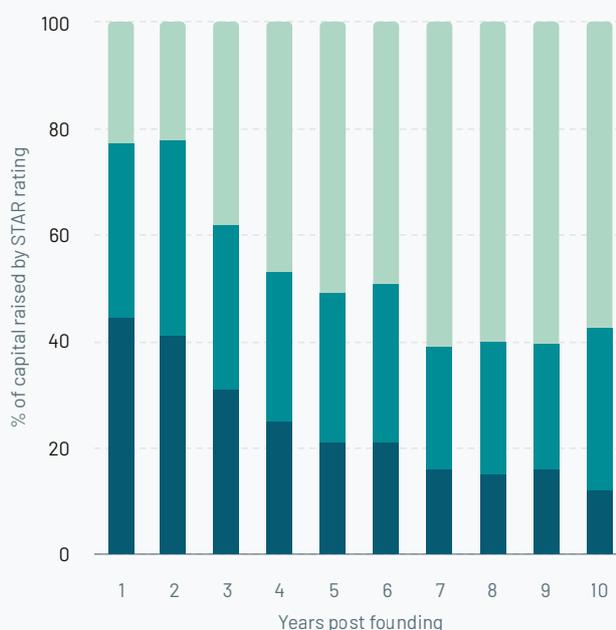
As startups mature, top teams draw majority of capital

The concentration of capital around companies that succeed in building outlier teams is also evidenced when looking at the distribution of capital raised over time.

In the initial two years post-founding, before most companies have really had an opportunity to significantly strengthen their teams, capital is distributed more widely. As time elapses, however, more and more capital flows to the strongest teams. This is, of course, aided by the fact that there is a compounding positive effect from raising capital when it comes to building an exceptional team. The more you raise, the stronger your position when it comes to attracting, retaining and rewarding the best - and most expensive - talent.

Distribution of capital raised over time by STAR rating

- Exceptional (5+)
- Very good (3-4)
- Standard (0-2)



Notes:
An "exceptional" team has a rating of 5 and above. Data is as of 20 September 2023.

Sources: **atomico** Powered by **iD dealroom.co**

crunchbase **revelio labs**

Number of top tier teams built from Europe has more than doubled

This data can also be used to answer key questions, such as whether capital flows disproportionately to the strongest teams, or whether more companies are able to build exceptional teams in tech from Europe today compared to 10 years ago.

On the first point, the data does indeed support the idea that the stronger the team you build, the more likely you are to hit funding milestones and the greater your access to capital. At one year after founding, the share of companies that have since raised Seed stage funding have a 3x greater concentration of teams rated exceptional than the baseline for all companies. By five years after founding, the gap between the control baseline and those companies that have gone on to successfully raise across multiple critical funding milestones widens to a staggering 10x.

Furthermore, when comparing the concentration of 'exceptional teams among the 2014 and 2013 cohort of founding, the share of top tier teams has doubled across all stages of maturity.



Europe's greatest strength when it comes to talent is its richness in diversity. With diverse backgrounds, education, and mindsets, Europe has a lot to offer. As a VP of people, it is essential for me to work in an organization that is diverse and complementary.

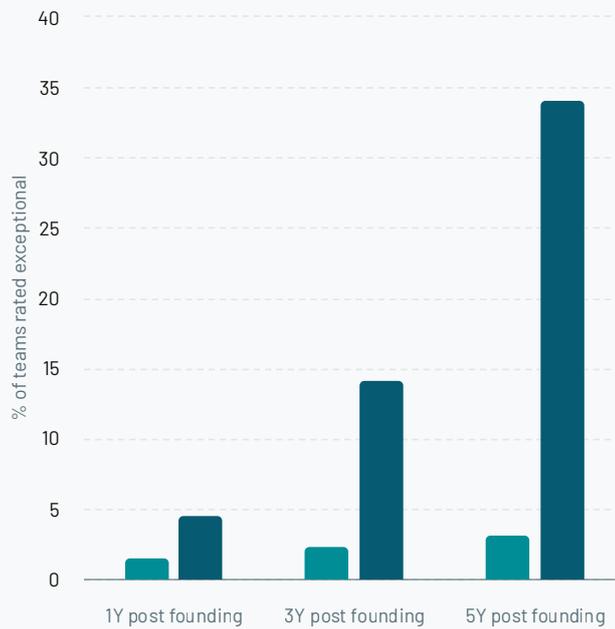
Emilie Tyan
VP of People, Reveal

I strongly believe that diversity is based on diverse educational backgrounds. Furthermore, for a company to grow, it needs to be challenged both externally and internally. To achieve this, we must ensure that we do not replicate the same team members and create a very identical company. Europe's strength is based on its diversity and how different it is across the same united zone.

Share (%) of teams rated as "exceptional" by stage, 2014 to 2023

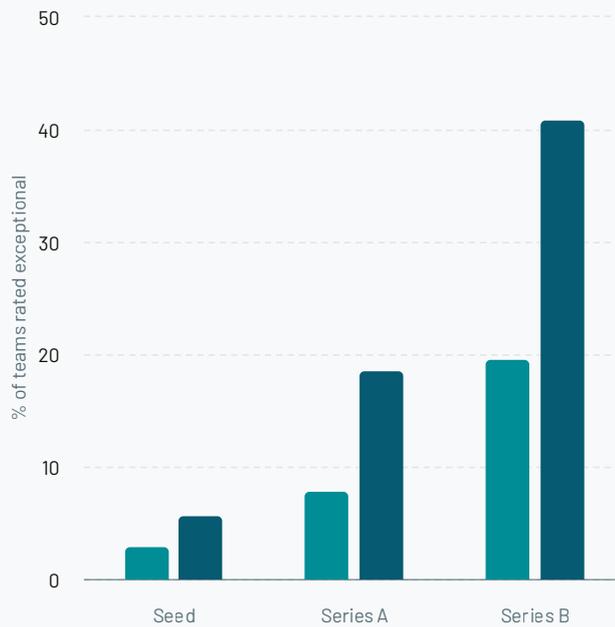
- Baseline*
- Funded companies

Baseline vs overall



- 2014 cohort
- 2023 cohort

2014 vs 2023 cohort



Notes:

An "exceptional" team has a rating of 5 and above.

*Baseline rating for Seed is based on 1 year post founding, for Series A on 3 years post founding and for Series B on 5 years post founding. Data is as of 20 September 2023.

Sources: **atomico** Powered by **revelio labs**

04



Fundraising

Key findings

Here, we turn our attention to the money that keeps the flywheel spinning. This chapter takes a look at how LPs and VCs have felt about the last year, what their priorities now look like, and examines the role of institutional investors in today's ecosystem.

VC an increasingly attractive asset class to LPs

While the majority of LPs reported an intention to maintain their allocations across all asset classes, 35% stated an intention to increase their allocation to VC next year - the most of any asset class.

VCs and LPs are aligned on future challenges

VCs and LPs agree that navigating a tougher fundraising environment will be a real challenge over the next 12 months. They are also both concerned about the impact of a muted exit landscape.

Pension funds are still punching below their weight

In 2022, just 0.024% of pension fund AUM was invested into European VCs, in line with the average of the last five years. The scale of European pension funds means even a small increase in their share of AUM dedicated to VC would transform the ecosystem.

LPs are more bullish than VCs give them credit for

As the ultimate source of capital that flows downstream via VCs to startups, Limited Partners (LPs) play a critical role in the healthy functioning and success of the European tech ecosystem. The scale and predictability of capital flowing from LPs is itself shaped by the appetite and willingness of these institutional investors to allocate to the venture asset class on a consistent basis. As a result, LP sentiment is a crucial barometer to understand current and future appetite to invest.

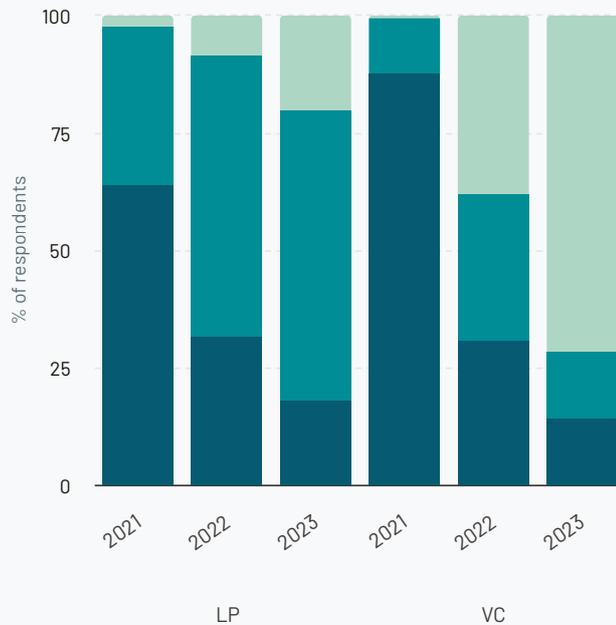
This year's survey highlights a notable increase in the share of LP respondents who reported a decreased appetite to invest in the European venture asset class compared to prior surveys, increasing to 20% of respondents from 8% last year and just 2% in 2021.

More notable, however, is the fact that just as many LP respondents 18% reported an increased appetite, while the majority 62% reported no change in appetite. This likely reflects the fact that many LPs understand the importance of investing consistently through all stages of the cycle and the fact that, perhaps counterintuitively, a market downturn may actually represent a more attractive phase to allocate to the asset class.

What really stands out, however, is the huge gulf in perception between LPs and VCs. As many as 71% of VC respondents to the survey stated that they have noticed a decreased appetite from LPs compared to 12 months ago, clearly highlighting the headwinds that VCs perceive are creating challenging fundraising conditions. This represents an almost doubling in VC respondents highlighting decreased LP appetite since last year's survey and is more than 3x higher than the responses shared by LPs themselves.

In the past 12 months, has your firm's appetite to invest in the European venture asset class changed? In the past 12 months, to what extent has your firm noticed a change in appetite for European venture investment from LPs?

- Decreased appetite
- Stayed the same
- Increased appetite



Notes:
VC and LP respondents only.
Respondents who selected "I don't feel sufficiently informed to comment" are excluded from the data.

Sources: **STATE OF EUROPEAN TECH** Survey

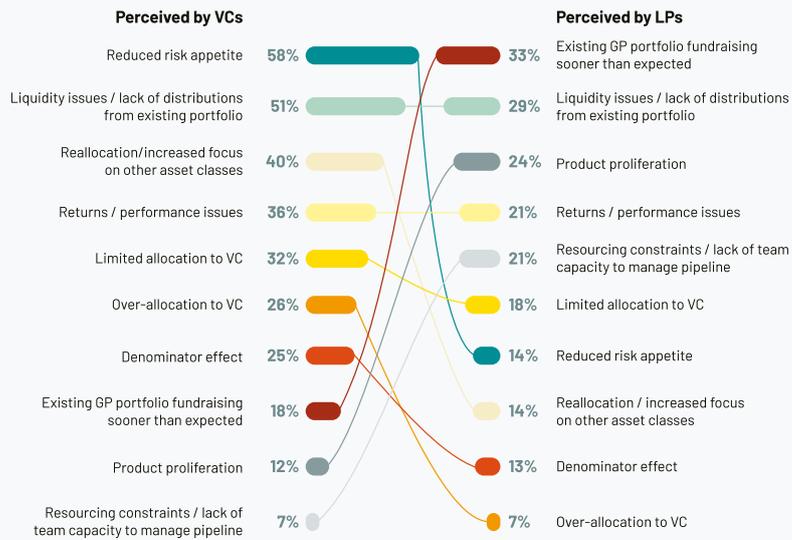
Stark gap in perception between VCs and LPs

It's sometimes said that VCs and LPs speak different languages, and are therefore not always aligned in the way they think or act. This mismatch in expectations is highlighted by a stark gap in the perception of VCs and LPs when asked to comment on the challenges faced by LPs in relation to their venture capital investments.

VC respondents were mostly likely to cite reduced risk appetite, liquidity issues from a lack of distributions, and reallocation to focus on other asset classes as the perceived challenges. In contrast, while liquidity issues also ranked second amongst LP respondents, the challenges posed by faster than expected fund re-up cycles and product proliferation by GPs were far more likely to be cited by LPs.

Interestingly, large perception gaps are visible across almost every possible perceived challenge and highlight a potential lack of understanding when it comes to the actual challenges faced by LPs.

What challenges, if any, do you believe LPs faced when investing in venture GPs in the past 12 months? What challenges, if any, have you experienced in relation to your VC programme strategy?



Notes:
 LP and VC respondents only.
 Respondents who selected "none of the above" and "other" are excluded from data.
 Number do not add to 100 as respondents could choose multiple options.

Sources: **STATE OF EUROPEAN TECH** Survey



On the back of a depressed M&A market and lagging VC fund returns compared to other asset classes, LP liquidity in the VC ecosystem has declined significantly in 2023.

Gavin Rees

Head of Strategic Fund Solutions,
HSBC Innovation Banking UK

VC fundraising remains therefore challenging, with fund closing times continuing to lengthen this year. However, there are signs the market could be on track for a stronger performance in 2024. Similar to the Private Equity Market which has seen significantly more capital going into the hands of the biggest funds, LPs have shifted their focus in the VC space towards top managers. There has also been increased LP led activity for secondary transactions in the Private Equity Market, indicating we may be closer to market clearance - and providing much needed liquidity among LPs. We may see a similar dynamic in the VC ecosystem, creating opportunities for new LPs to enter the market whilst giving existing LPs the opportunity to realize their investments.

VCs and LPs are aligned on future challenges

Interestingly, there is much closer alignment in the perception of VCs and LPs when asked about the greatest potential challenges likely to be experienced by VC GPs over the next 12 months. There is clear agreement on the difficulties of navigating the fundraising environment and the impact of a muted exit landscape on finding liquidity and realising distributions back to LPs.

The most notable areas of divergence of perception here relate to follow-on capital management and the competitive landscape for investment. LP respondents ranked follow-on capital management much higher than VC respondents, while VC respondents were much more likely to perceive competition as a challenge than LPs.

Thinking ahead to the next 12 months, what do you consider to be the greatest potential challenges for your VC fund? Thinking ahead to the next 12 months, what do you consider to be the greatest potential challenges for VC GPs?

- Challenges perceived by VCs
- Challenges perceived by LPs



Notes:
 VC and LP respondents only.
 Respondents who selected "None of the above" and "Other" are excluded from the data. Numbers do not add to 100 as respondents could choose multiple options.

Sources: **STATE OF EUROPEAN TECH** Survey

Appetite to add new European VC GPs remains strong

As well as asking LPs to comment on their overall appetite to invest in European venture, the survey also asked respondents to specifically state any change in their appetite to add net new managers to expand their portfolio of European VC funds. Almost half of all LP respondents (41%) stated an increased appetite to add new managers, while more than a third (31%) reported no change. Just 18% of LP respondents reported a decreased appetite to make commitments to new fund manager relationships.

In the past 12 months, how has your firm's appetite to add net new European VC GPs to your portfolio changed compared to before?

41%

of LPs stated an increased appetite to add new GPs to their portfolio.

Source

**STATE OF
EUROPEAN TECH**
Survey

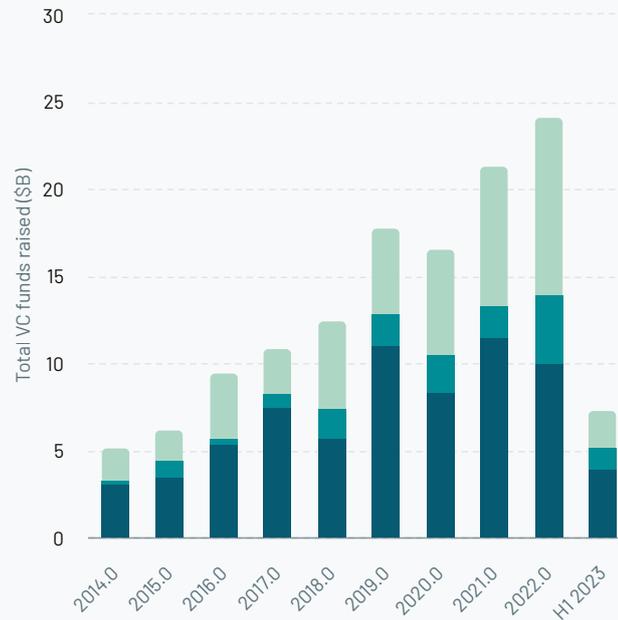
Smooth sailing behind and choppy waters ahead?

Despite market headwinds, 2022 represented a record-breaking year for European VCs with funds raised in the year exceeding \$24B, driven by an expansion of fundraising by both early-stage and later-stage fund managers.

This year, however, looks set to record a meaningful year-on-year decline in total funds raised, with the first half of the year having recorded just \$8.3B raised. The contraction in fundraising volumes during the first six months of the year is visible across all stages of investment focus. This falling number, however, should be framed within a longer-term perspective. Only a decade ago, European VCs raised just \$5.1 billion for the full year of 2014.

Overall VC funds raised (\$B) by fund type per year, 2014 to H1 2023

- Early-stage
- Later stage venture
- Venture (all stages)



Notes:
Taken from the European Data Cooperative, developed by Invest Europe. Data is as of June 2023. The data shows incremental amounts in each year for venture funds, not only final closing.

Sources: **INVEST EUROPE**

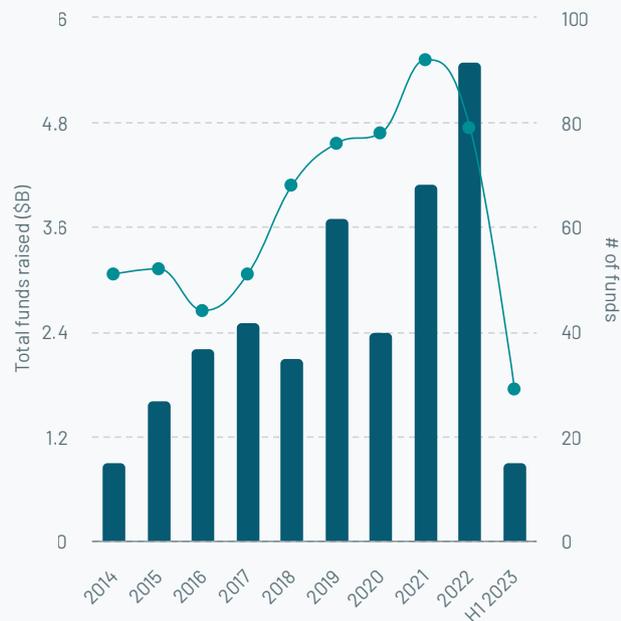
First-time funds taking a hit

There has been a lot of discussion about the impact of a challenging fundraising environment on first-time fund managers. Despite the fact that conditions had clearly already shifted in 2022, there was an all-time record high in terms of funds raised by first-time European VC managers, while the number of funds closed also approached the record level of 2021.

This year, however, shows a clear reversal of these record numbers. In the first half of 2023, only 29 first-time European VC funds were closed for a total of less than \$1B in aggregate funds raised. Based on the level of activity seen year to date, it's clear that the full-year total will fall well short of recent highs and look set to drop back to levels last seen in pre-Covid years.

Number of first-time European VC funds and total amount raised (\$B), 2014 to H1 2023

- Total funds raised (\$B)
- # of funds



Notes:

Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023. The data shows incremental amounts in each year for venture funds, not only final closing.

Sources:

**INVEST
EUROPE**

Portfolios under review

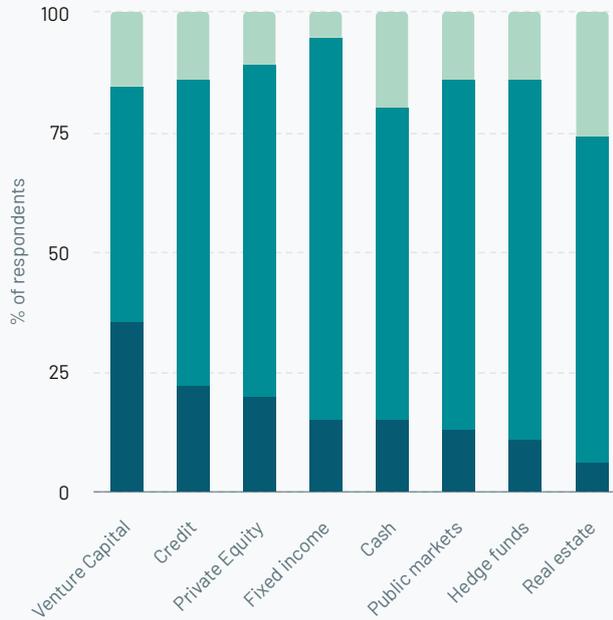
The changing investment environment means that LPs have to review their portfolios and allocation targets to consider potential adjustments to allocations across all asset classes, not just VC. The majority of LPs reported an intention to maintain their allocations across all asset classes.

Looking at responses for venture capital specifically, more LP respondents stated an intention to increase their allocation (35%) over the next 12 months compared to any other asset class. An intention to increase allocation to Credit, for example, was highlighted by 22% of LP respondents, while for Private Equity this number was 20%.

Interestingly, however, 15% of LP respondents stated an intention to decrease allocation to venture capital over the next 12 months, which was the third-highest share of respondents, after cash (20%) and real estate (26%).

In regards to the below listed asset classes, is your fund looking to increase or decrease allocation in the next 12 months?

- Decrease allocation
- Remains the same
- Increase allocation



Notes:
 LP respondents only.
 Numbers may not add up to 100 due to rounding.

Sources: **STATE OF EUROPEAN TECH** Survey



For the most part, established VCs have done a good job of managing their portfolios over the past 12-18 months. They've taken significant write downs where appropriate and have focused their portfolio companies on reducing burn and extending their cash runways.

Michelle Ashworth
Partner, Top Tier

As a result, we think that most of our GPs are in relatively good shape. That said, we think there are a lot of companies waiting on the side-lines, reluctant to raise capital until they have to, that will have to come back to market next year. We think fundraising is likely to remain a challenge for all but the most high-profile venture-backed companies over the next 6-12 months, so continued portfolio management is paramount. We would advise GPs, if and when the fundraising market improves, not to go straight back to where we were in terms of investment pace. A lot of VCs deployed a lot of capital in a short space of time between Q2.20 and Q2.22 and we know historically that has not led to attractive returns.

Some catching up to do

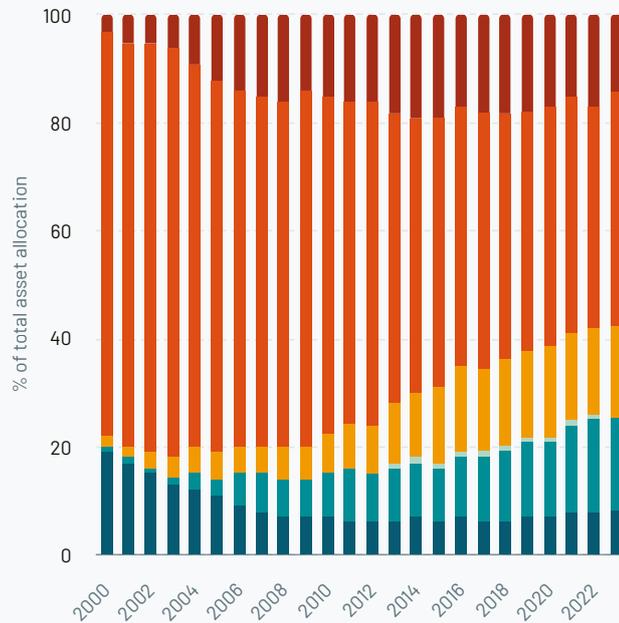
Despite huge progress and an almost 50x growth in the value of the European tech ecosystem over the past two decades, the share of alternative assets under management (AUM) allocated to venture capital by European-headquartered asset managers has actually declined over the same period.

In fact, today, just 8% or \$218B of European asset manager AUM allocated to alternative assets is allocated to venture capital. In 2000, at the peak of the dotcom period, this stood at 19% and then subsequently declined consistently to fall below double-digit levels in 2008. It has hovered in the mid-to-high single-digit allocation range ever since.

To put this in a broader context, at 8%, European asset manager allocation to venture capital in 2023 is half of the US average of 16% (equivalent of \$1,100B) and significantly lower than the global average of 21% (equal to \$2,776B). For the US as well as global AUM allocation, the share held by VC has risen steadily over the last decade since hitting lows of 10-11% in 2013.

Share of AUM by alternative asset class based on manager HQ region, 2000 to 2023

- Real Estate
- Private Equity
- Private Debt
- Natural Resources
- Infrastructure
- Venture Capital



Notes:
Data is as of 30 September 2023. Numbers may not add up to 100 due to rounding.
2023 data is as of 31 March 2023.

Sources: **PREQIN**

Emerging fund types in European VC

A muted exit landscape has exacerbated an existing market need for a greater variety of liquidity solutions for early investors and employees. Alongside the emergence of secondary marketplaces such as Forge Global's Forge Europe to facilitate transactions between buyers and sellers of private shareholdings in technology companies, the market need is also starting to be addressed by a still small, but growing number of dedicated European secondary funds with a specialist focus on high-growth, private European technology companies.

 <p>Arcven HQ - Netherlands</p>	 <p>Flashpoint HQ - United Kingdom</p>	 <p>Giano Capital HQ - Switzerland</p>
 <p>Nordic Secondary Fund HQ - Denmark</p>	 <p>Rockby HQ - France</p>	 <p>Siena Secondary Fund HQ - Estonia</p>

Fund count trending down

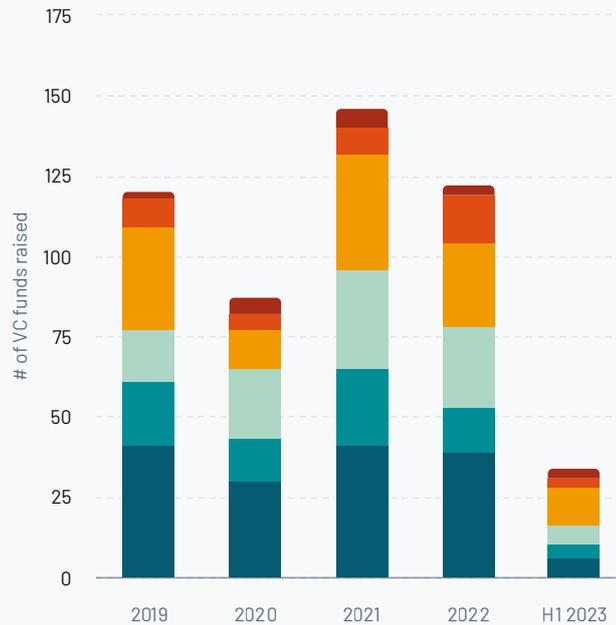
The decline in the count of funds closed is visible across almost all fund size categories, especially for those at the lowest end of the spectrum. In the first half of 2023, for example, just six funds sized under €25M have been closed, compared to around 40 per full year in the two preceding years. Similarly, just six funds size between €50-100M closed in the first six months of 2023, compared to 25 during the full year 2022.

The one exception visible in the trend by fund size is for the largest fund size category, meaning funds closed in excess of €500M. Based on the rate of fund closes in H1 2023, this category is on track to exceed 2022's total and to match the record of any prior year.

This speaks to the fact that European VC is now seeing a growing number of funds scaling up to capture the dramatically increased European tech opportunity. It is an interesting contrast to a trend in the US of its largest-scale managers choosing - or needing - to downsize fund targets to take into account the shifts in the macro context. Of course, US funds scaled much bigger, much faster and so the trend is indicative of regional-specific trends.

Number of VC funds raised, 2019 to H1 2023

- > €500M
- €250 - 500M
- €100 - 250M
- €50 - 100M
- €25 - 50M
- < €25M



Notes:
H1 2023 figures are preliminary. Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023. Data is final closing only.

Sources: **INVEST EUROPE**

VCs coming back to market delayed

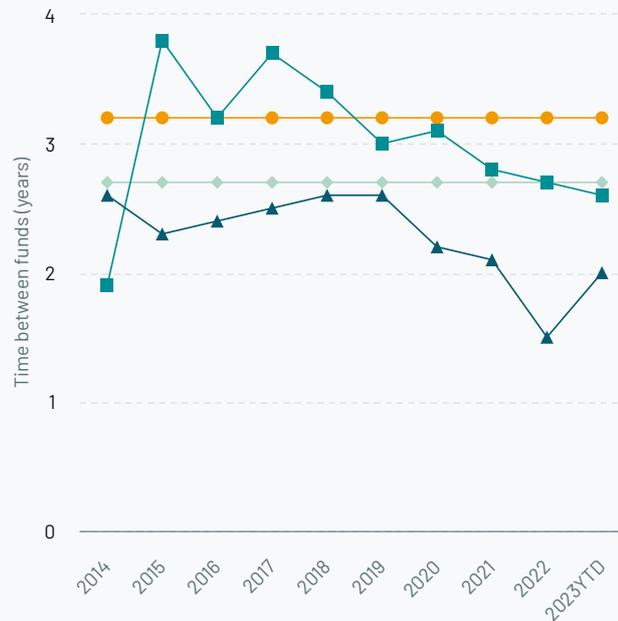
2021 and early 2022 saw record-breaking investment levels, fuelled in no small part by investors significantly accelerating their pace of investment and compressing fund deployment cycles. Last year's edition of the State of European Tech predicted a reversal of this trend starting in 2023 and this is now beginning to be reflected in the data.

Last year, the median time between VCs returning to market and closing their next funds had shrunk to record lows in both Europe and the US. In the US, this number had fallen as low as a median fund cycle length of just 1.5 years, a remarkable divergence from the long-run US average of 2.7 years. In Europe, meanwhile, this number fell to a new low of 2.7 years in 2022, compared to the long-term average of 3.2 years.

This year, however, shows that the time between funds in the US has started to elongate again, extending to two years, while in Europe the numbers appear to be delayed in reflecting the impact and have yet to increase as visibly as in the US. That said, the data does show indications of fund cycles having now settled above a median of 2.5 years.

Median VC Fund time between funds (years)

- Europe (Average)
- United States (Average)
- Europe (Median)
- United States (Median)



Sources: PitchBook

Notes:
Data is as of 30 September 2023.

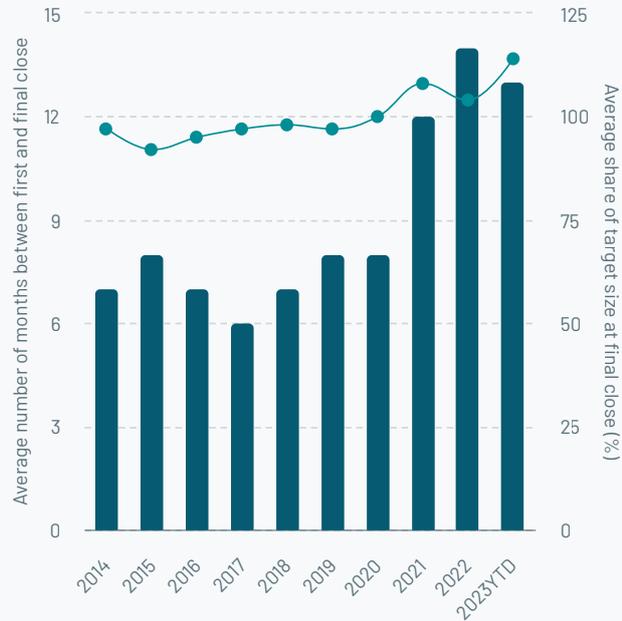
Fundraising timelines stretching out

The evidence of a more challenging fundraising environment is also visible elsewhere. One clear example is in looking at the average time taken between first and final fund closes, as well as the average percentage of target fund size achieved by fund managers at final close.

Since 2021, there has been clear evidence of fundraising timelines elongating significantly between first and final closes. In fact, between 2020 and 2022, this number has increased by more than 50% from an average of eight months to more than a year. Meanwhile, after rising consistently for almost a decade, the average share of target size achieved at final close by fund managers declined for the first time in 2022, a trend that will likely also have been continued in 2023 once the updated numbers are disclosed.

Time between first and final close (months) and share (%) of target size reached at close, 2014 to 2023

- Average number of months between first and final close
- Average share of target size at final close (%)



Sources: **PREQIN**

Notes:
Data is as of 30 September 2023.

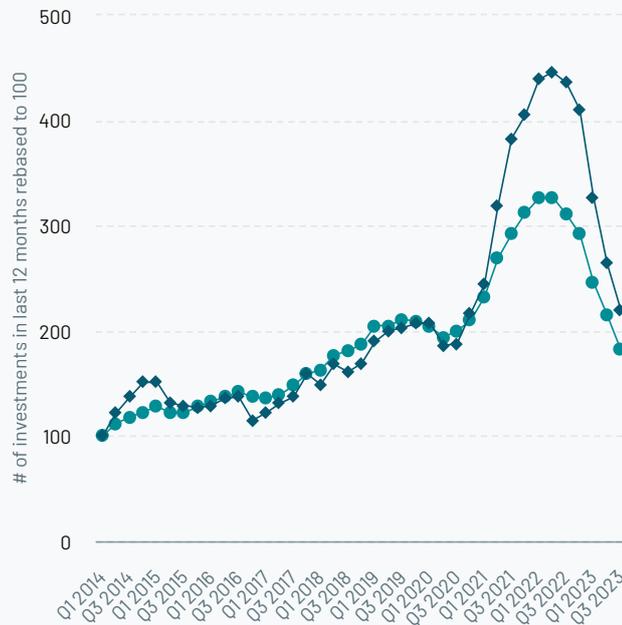
Pace of investment slowed

The length of a fund's deployment cycle is intrinsically linked to overall pace of investment. The faster a fund is invested, the sooner the fund manager has to return to LPs to raise again. The overall scale of investment activity is also a function of the size of funds raised. Assuming a consistent strategy in terms of typical initial cheque sizes, the bigger the fund, the greater the number of expected investments.

The impact of bigger funds and shorter fund cycles is neatly captured when looking at the volume of investment activity across a consistent cohort of more than 100 funds actively investing in European tech over the past decade. At the early stage, there was a consistent increase in new investment volume, culminating in a dramatic increase in investment pace between Q1 2022 and Q2 2022. But the subsequent deceleration since then is just as stark. At the growth stage, the same trend is repeated, albeit with the expected lower relative volume of activity.

Number of new investments made in the last 12 months for a cohort of investors rebased to 100, 2014 to 2023

- Early stage
- Growth stage



Notes:

Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Based on a cohort of 110 funds focussed at Early Stage (Pre-Series A) and 31 funds active at Later Stage (Series A+) deals.

Sources: **atomico** Powered by



dealroom.co

crunchbase

GPs sharpening focus

Not surprisingly, a reset in the macro and fundraising environment is causing VCs to sharpen their focus and reprioritise firm-level strategies and initiatives.

As in last year's survey, the importance of building a stronger network was the top-ranked response in terms of areas that have been given an increased priority over the past 12 months. This, of course, reflects the importance of relationships in a heavily people-centric industry.

The biggest shift is an increased priority given to fund marketing activities (cited by 65% of VC respondents), a logical reflection of the need to stand out amid a very tough and competitive fundraising landscape. The increased priority on developing investment focus specialism (cited by 51% of VC respondents) is also aligned with the need to have a clearly differentiated value proposition.

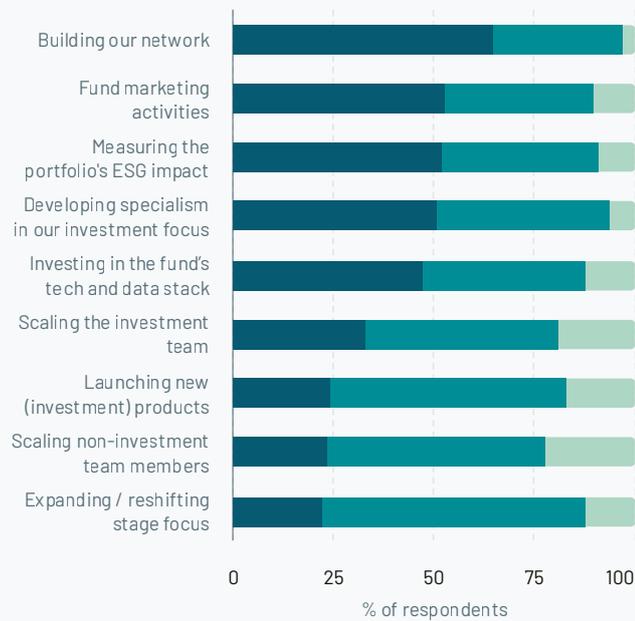
The industry's increased focus on ESG, in part driven by greater pressure from LPs, is also evident in the significant increase in the number of VC respondents (52%) saying this has been given a greater priority over the past 12 months. In last year's survey, this number stood at just 28% of VC respondents.

Another notable change compared to last year's survey, is a palpable increase in the percentage of VC respondents that cited an increased priority to invest in their fund's data and tech stack. This year, 47% of VC respondents said this had seen an increased priority, compared to just 23% of respondents in 2022.

The areas most likely to have experienced a decreased priority over the past 12 months related to scaling headcount, in respect to both the investment and non-investment teams.

Which firm-level strategies or initiatives have seen a change in priority in the last 12 months compared to the year before?

- Decreased Priority
- No change
- Increased Priority



Notes:
 VC respondents only.
 Numbers do not add to 100 as respondents could choose multiple options.
 2022 survey question was asked as a multiple choice while in 2023 respondents were asked to rank each.

Sources: **STATE OF EUROPEAN TECH** Survey



I am very bullish around European thought leadership and commitment around ESG and Climate topics.

Carolina Brochado
Partner, EQT Ventures

From the increasingly robust EU regulatory landscape to shifting consumer behaviours, prioritising the different areas of ESG is a trend that is very pronounced in Europe, which I believe will pave the way for large future companies to be established which will pioneer innovation in software & tech while also driving positive change.

A third of LPs have actively explored proactive liquidity opportunities

The knock-on effect of a muted exit landscape is a lack of distributions to LPs, creating the liquidity issues that so many LP survey respondents highlighted as a key challenge.

As a consequence, this has led a significant number of LP respondents to proactively explore alternative liquidity opportunities, such as seeking secondary buyers for positions in their GP portfolio. According to the survey, 35% of respondents have spent time in 2023 exploring these potential opportunities, though only a small number of respondents (6%) have spent significant time on this.

The main drivers of LP portfolio sales include the derisking of maturing programmes (especially for pension funds), the resizing of portfolios to rebalance allocations, enabling consistent deployment and preserving vintage year diversification by unlocking new commitments, enabling a reallocation away from legacy strategies, as well as as cutting non-core relationships.

So far in 2023, has your fund looked for liquidity opportunities (e.g. selling secondaries)?

35%

of LP respondents state they have spent time seeking liquidity opportunities

Source **STATE OF EUROPEAN TECH** Survey

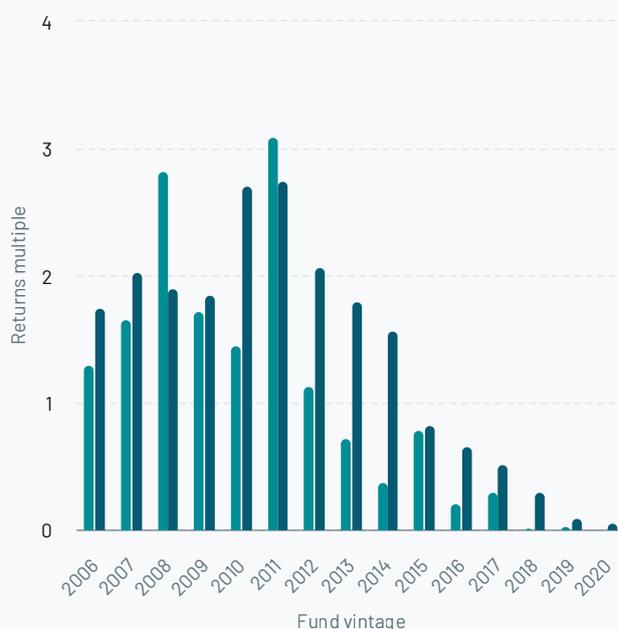
Realisations and distributions unlock

As highlighted by survey respondents, distributions are top of mind for both VCs and LPs. The key metric to assess this is DPI, a measure of distribution to paid-in capital, i.e., the multiple of capital returned to investors relative to their initial commitment size.

On average, VC funds take up to a decade to return the initial investment to LPs (i.e. hit a DPI of greater than one), while further distributions continue to follow in subsequent years. A comparison of European vs. US funds highlights an interesting divergence in the time to DPI, but over time shows that European funds closely align to, and in some cases exceed, US benchmarks. The divergence in time to initial DPI across the regions is likely a function of the maturity of the exit landscapes.

DPI by fund vintage year for European and US VC funds

- European Developed venture capital
- US venture capital



Sources: CA CAMBRIDGE ASSOCIATES

Notes:
Data as of Q2 2023.

Short-term returns hit, but long-term outperformance

As expected, the market reset is mirrored in the short-term performance of venture capital. One-year VC returns are now well into negative territory in both Europe and the US, as a consequence of increased down rounds, write-offs, and markdowns reflecting in the data.

In VC, however, what matters is the long-term perspective, given that returns take 10 years or more to be realised.

In this regard, European VCs have consistently delivered outperformance over two decades, at least matching or, in most cases, beating benchmarks from US VCs, European buyout, and public equities.

Horizon pooled return (net) by fund index, June 2023

- 2023 MSCI Europe Index
- 2023 Europe Developed Private Equity Index
- 2023 US Venture Capital Index
- 2023 Europe Developed Venture Capital Index



Notes:
Data is as of 30 June 2023. MSCI Europe Index is derived from the CA Modified Public Market Equivalent (mPME), which replicates private investment performance under public market conditions.

Sources:  CAMBRIDGE ASSOCIATES

Several larger-scale funds defy the market downturn

The maturing of Europe's investor landscape is characterised by a small, but growing number of large-scale VC fund managers based in the region. This year, several of these managers defied challenging fundraising conditions to close on significantly-sized vehicles. This includes three funds that closed in excess of \$1B, including Generation Investment Management spin-off Just Climate's \$1.5 billion 'Climate Assets Fund', the \$1.1B NATO Innovation Fund, and Highland Europe's fifth technology growth fund of just over \$1B.

Largest European VC funds raised in 2023

	Name	Size of Fund (\$M)	Fund Name	Fund Location
1	Generation Investment Management	1,500	Climate Assets Fund I	London, United Kingdom
2	NATO Innovation Fund	1,107	NATO Innovation Fund	Amsterdam, Netherlands
3	Highland Europe	1,070	Highland Europe Technology Growth V	London, United Kingdom
4	HV Capital	770	HV Capital Fund IX Growth	Munich, Germany
5	Dawn Capital	620	Dawn Capital V	London, United Kingdom
6	High-Tech Gründerfonds	529	High-Tech Gründerfonds IV	Bonn, Germany
7	Eurazeo	435	Eurazeo Smart City Fund II	Paris, France
8	Hedosophia	356	Hedosophia Partners V	London, United Kingdom
9	Notion	326	Notion Capital V	London, United Kingdom
10	Hitachi Ventures	300	Hitachi Ventures Fund III	Munich, Germany

Notes:

Includes funds that had a final close after 1 January 2023 with the fund location in Europe. Data as of 30 September 2023

Sources: **atomico**



The European tech ecosystem is already addressing the most pressing and transformative issues the world is facing.

Pete Sugden

Partner, Technology Companies Group, Orrick

With prominent and sophisticated local capital, a growing and maturing entrepreneur base and increasing signs of the deep network effect from European tech success stories, 2024 promises to be a year in which European tech can “kick on” even stronger and truly shape the future.

Sovereign funds still key, but a declining share of total funds raised

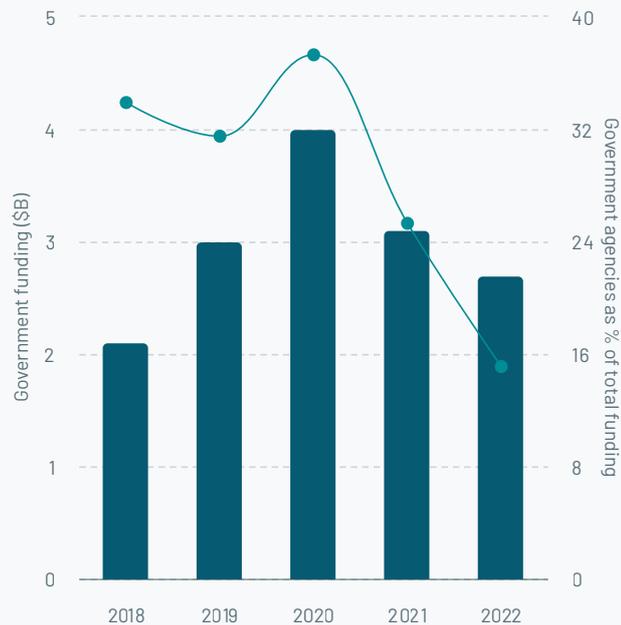
As it does in every major venture ecosystem, government funding plays an important role in Europe too. National and regional initiatives, such as the European Investment Fund, British Patient Capital, KfW Capital, and bpifrance, are amongst the most active LPs in the European tech ecosystem.

These agencies have consistently backed local fund managers with billions of dollars of capital each year. Contrary to perception, however, the scale of annual investment has not grown materially over the past five years. In fact, in 2022, government backing actually declined again compared to 2021 and vs. the peak year of 2020.

But as more and more private institutional investors commit to the European venture asset class, the relative share of funds sourced from governments continues to decline rapidly as a percentage of total funds raised by European fund managers. This hit a record low of 15% of total funds raised in 2022, down from more than 30% in each year between 2018 and 2020.

Government funding (\$B) and share of government funding (%) per year, 2018 to 2022

- Government funding (\$B)
- Government agencies as % of total funding



Notes:

Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023. The data shows incremental amounts in each year for venture funds, not only final closing.

Sources: **INVEST EUROPE**

Pension funds are (still) punching below their weight

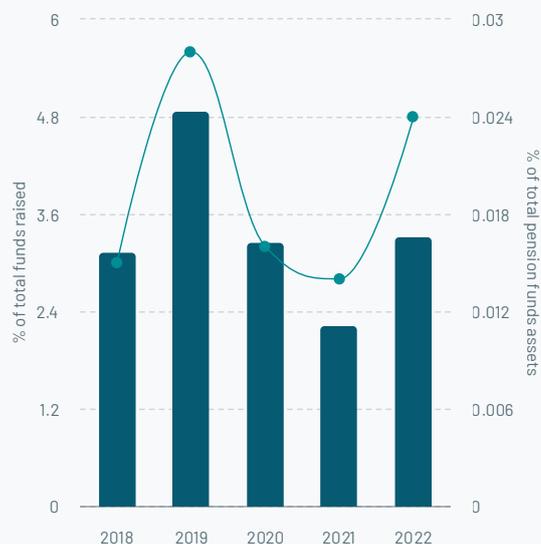
Considering their scale, European pension funds have historically punched well below their weight as investors in the region's entrepreneurial and growth ecosystem. As the State of European Tech has called out over the years, when comparing the total assets under management (AUM) of European pension funds, the share from this dedicated to the venture asset class is minuscule.

In 2022, just 0.024% of pension fund AUM was invested into European VCs, in line with the average of the last five years. This is based on the reported assets of European pension funds, standing at \$3.4 trillion. Adding in the assets managed in the United Kingdom would double these AUM and hence halve the share going to VC.

Positively, there has been a small number of notable developments across Europe this year. The UK government, for example, added flexibility earlier this year on a fee cap previously limiting pension funds to invest in VC funds. Furthermore, in October,

European pension funds committed to VC funds as a share of total funds raised and total European pension funds assets (%) per year, 2018 to 2022

- % of total funds raised
- % of total pension funds assets



Notes:
Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023. The data shows incremental amounts in each year for venture funds, not only final closing.

Sources: **INVEST EUROPE**

The whole ecosystem wants to see more institutional investment

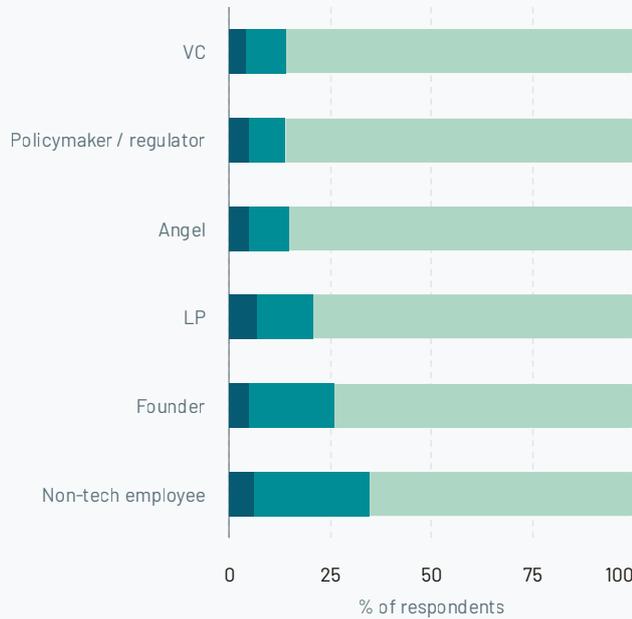
To better understand industry sentiment on the question of unlocking capital at scale for the European tech ecosystem, survey respondents were asked to share their perspective on whether European institutional investors should increase or decrease their allocation to venture capital. The response was, unsurprisingly, overwhelmingly skewed in support of increased allocation (76% of respondents), including a large share of respondents that felt that the increase should be significant (36% of respondents).

It's easy to challenge the premise of the question. Of course, most respondents are likely to be in favour of an increase in support. But what stood out to us is the strength and consistency of support across all stakeholder groups, from VCs (surprise!) to policymakers to Limited Partners themselves. Even 66% of those survey respondents working outside of the tech sector perceived the need for increased allocation to venture capital.

The survey registers a strong call to action.

Which firm-level strategies or initiatives have seen a change in priority in the last 12 months compared to the year before?

- Increase allocation
- Neither increase nor decrease
- Decrease allocation



Notes:
Numbers do not add to 100 as respondents could choose multiple options.

Sources: **STATE OF EUROPEAN TECH** Survey



While we've observed a surge in interest from institutional investors in European tech, which is benefiting local companies and entrepreneurs, it's important to highlight that this uptick has been relatively modest from the perspective of local European fund managers.

Leyla Holterud
Partner, Stepstone

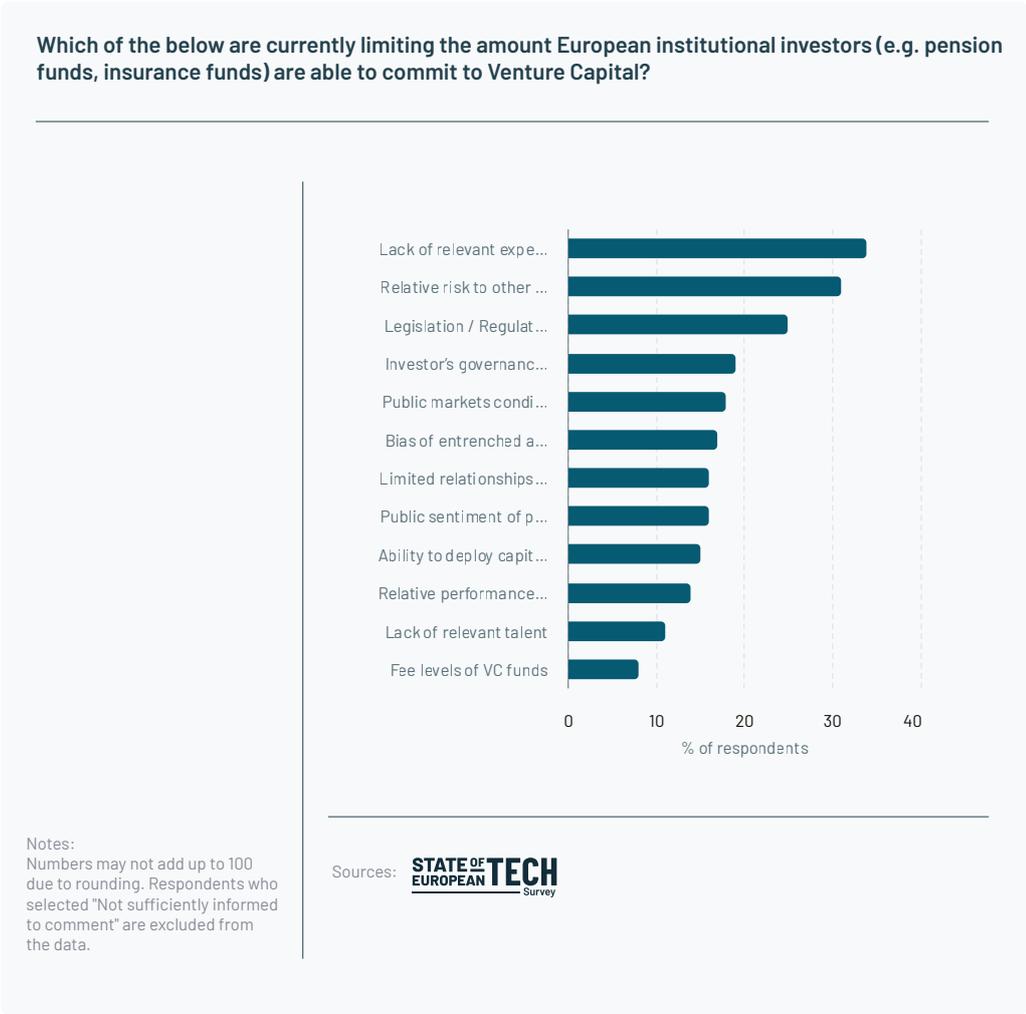
The increased interest has primarily been absorbed by US general partners (GPs) that have raised larger funds and increased their allocation to Europe or have established a local presence. This has been driven by a number of factors that investors take into account when adding new manager relationships including currency, denominator and numerator considerations, macroeconomic and geopolitical factors and limited dynamism by local managers.

How do we get more pension funds to allocate to venture capital?

While strong advocates for the importance of venture capital, survey respondents recognise that investing into VC comes with complexities. The most commonly cited reasons for pension funds to hold back in their investment levels was perceived to be a lack of relevant experience of investing in the asset class, the relative perceived risk to other asset classes, followed by regulatory/legislative constraints.

Beyond these challenges, a variety of other perceived barriers were also frequently cited by survey respondents, including institutional governance and approval processes, limited relationships and networks within the space, and the potential bias of entrenched advisor networks.

It's clear that a significant level of knowledge-sharing and education will be needed at an ecosystem level to work in collaboration with institutional investors, policymakers, advisors and other stakeholders to seek to address these concerns and remove potential barriers to allocation at scale.

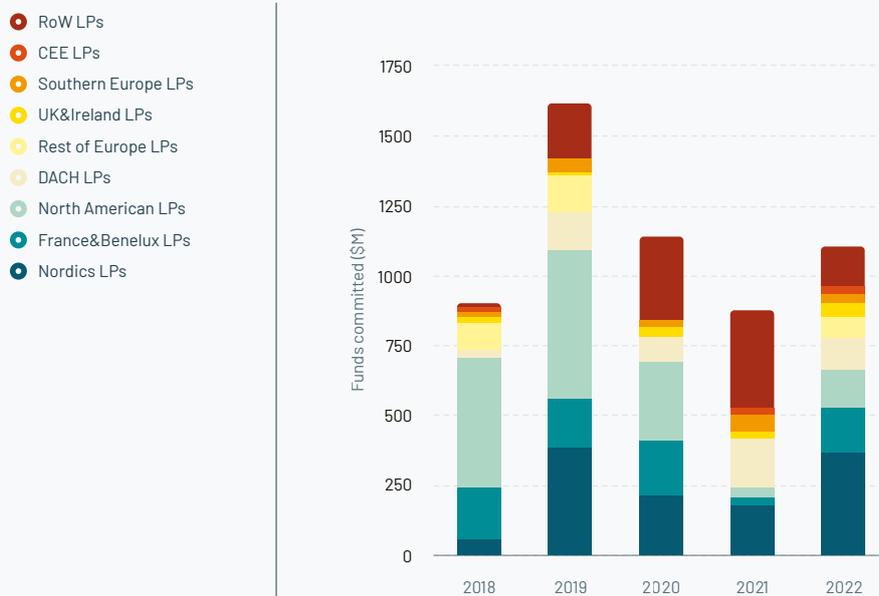


Nordic pension funds doing the heavy lifting

The legislative environment can play a significant role in a pension fund investor’s appetite and ability to invest in the venture asset class. American and Nordic pension funds are often cited as role models for regions earlier on in their journeys, combining appropriate safeguards with a balanced portfolio risk. This is also reflected in the levels of investment flowing into VC, with Northern American and Nordic LPs on average accounting for the largest shares across the past five years.

Despite representing one of the biggest ecosystems in Europe, pension funds in the UK and Ireland only represent 5% of pension funds committed to European VC in 2022. To put this further into scale, in 2022 UK & Irish pension funds committed a total of less than \$200M to European venture funds, while Irish and UK tech companies themselves raised \$31B in that year, a sum several hundred times higher.

Pension funds committed (\$M) to VC funds by LP region per year, 2018 to 2022



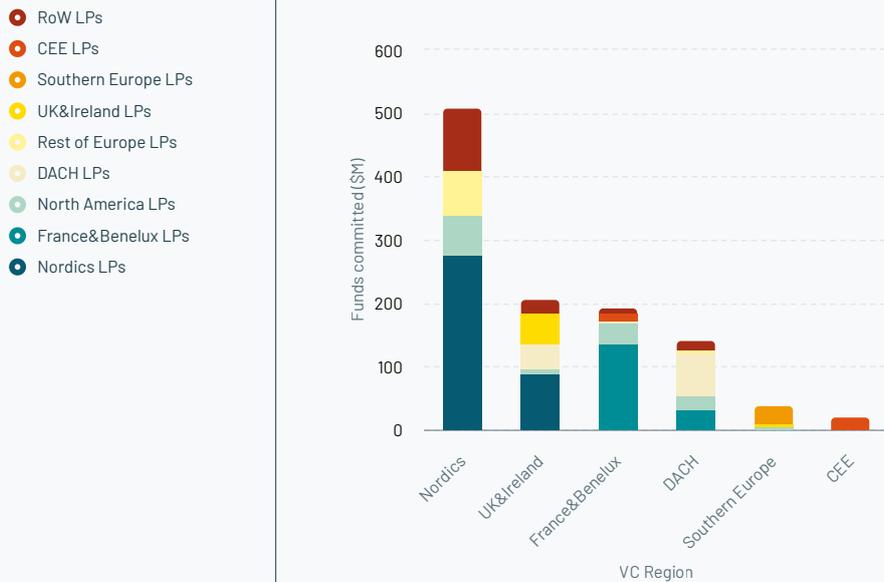
Notes:
 Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023.

Sources: **INVEST EUROPE**

Pension funds like to invest locally

VCs based in the Nordic countries are the largest beneficiaries of local pension funds' investment activities. Interestingly, the Nordics is also the region in Europe with the highest share of funding raised from non-local pension funds, highlighting the need for a strong base of local LPs in order to attract overseas interest.

Pension funds committed (\$M) to VC funds by LP region and fund location, 2023



Notes:
Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023

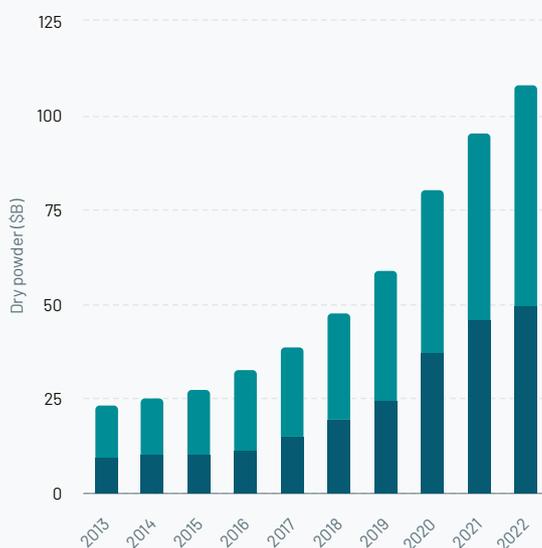
Sources: **INVEST EUROPE**

Volumes of dry powder remain high

Whilst the fundraising environment in Europe has seen a clear shift this year, the levels of dry powder have kept climbing, reflecting continued elevated levels of fundraising in recent years. Reporting from Invest Europe implies the total dry powder, the amount of committed but unallocated capital venture capitalists have at hand to deploy, has risen to \$58B, and to \$108B when also including Growth funds. This represents an increase of 14% from \$98B in 2022. Fundraising is a slow process and any shifts in changing market sentiment will only flow through to dry powder figures with a delay. As of today, European venture funds continue to sit on the largest trove of deployable capital that Europe has ever seen.

Dry powder (\$B) by fund stage focus per year, 2013 to 2022

- Venture Capital
- Growth



Notes:
Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023.

Sources: **INVEST EUROPE**

05



Outcomes

Key findings

Finally, we examine the state of the public markets, IPOs and M&A to understand liquidity prospects for companies and their investors. We also consider the value of listed tech as a health indicator for the ecosystem.

Exits remain muted and led by M&A

This year's IPO landscape was particularly quiet, while not completely dormant. In contrast, the M&A market has displayed higher levels of activity, although the volume and value of transactions are still far from the peaks of 2020 and 2021.

Enormous cash firepower sitting on the sidelines

Globally, the dry powder held by PE firms is at record levels, reaching \$2.3 trillion as of 30 September 2023. Meanwhile, corporate buyers are also sitting on huge cash balances that could be deployed to fuel M&A activity.

Europe's never had a stronger pipeline of billion-dollar exit candidates

Judging by the number of VC-backed tech companies that have raised a minimum of \$300M over the course of their lifetime, Europe already has more than 120 companies that are viable future candidates for billion-dollar exits.

Exit landscape stirs after extended quiet period

Liquidity events - or exits - are critical to the effective functioning of the European tech flywheel - the virtuous cycle that powers the ecosystem. These serve not only as a means to unlock the realisation and redistribution of capital gains, but also as catalysts for the systematic recycling of talent and expertise into a new generation of companies.

Following the peak of the market in Q4 2021, six consecutive quarters of subdued exit activity followed. The IPO landscape, in particular, was notably quiet - though not entirely dormant.

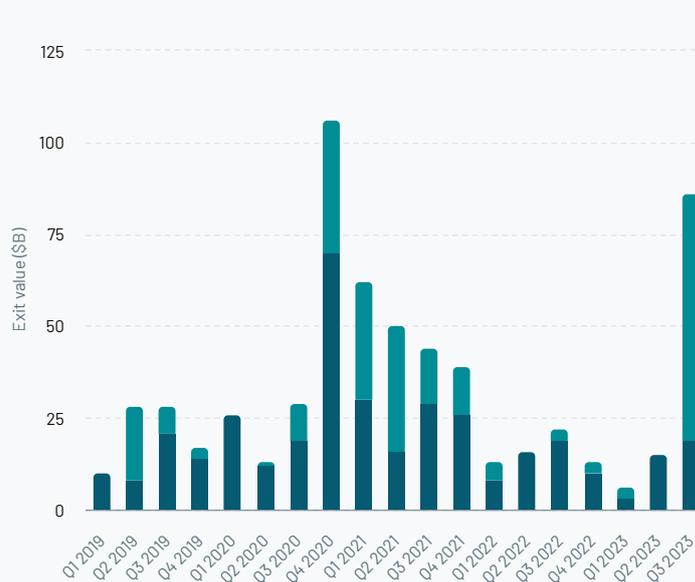
The third quarter of 2023 saw a notable uptick in liquidity events. Before ARM's gigantic \$55B IPO this year to test a 're-opening' of the IPO window, Europe had already witnessed two other billion-dollar tech public offerings this year, including the \$2.6B listing of German cloud infrastructure provider IONOS Group and the ill-fated \$1B IPO of UK fintech CAB Payments.

In contrast, the M&A market has displayed higher consistent levels of activity, although the volume and value of deals are still far from the peaks of 2020 and 2021.

As we'll explore throughout the report, the big shifts in the exit landscape, both in the pathway to liquidity and in the form of a reset of the valuation environment, have led to knock-on consequences for founders, talent, VCs, LPs and beyond.

European tech M&A transaction value and tech IPO market cap at close of first trading day (\$B) by announcement quarter, 2019 to 2023

- IPO
- M&A



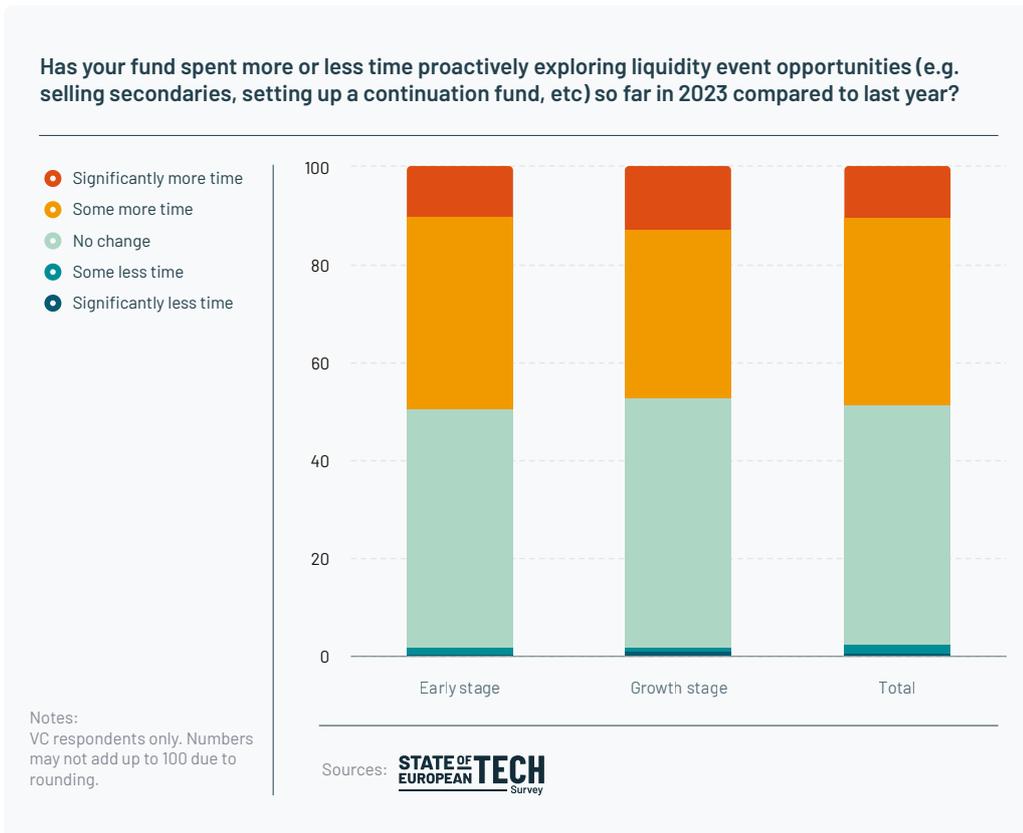
Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only. 2023 figures extrapolated linearly based on year to date figures. Includes announced and completed M&A transactions only (excluding since terminated/withdrawn).

Sources: S&P Global
Market Intelligence

VCs spending more time seeking liquidity

The impact of a slow exit landscape for investors is an elongation of the expected timeline of liquidity events, and therefore a delay in projected distributions. Meanwhile, the ongoing liquidity crunch for LPs creates heightened pressure on VC GPs to deliver distribution.

This change in sentiment around the pressure to deliver distributions is reflected in VCs spending more time to proactively 'engineer' liquidity opportunities, through secondary sales, continuation funds, or other means. According to VC survey respondents, almost half have spent more time over the past 12 months proactively exploring these opportunities. Just 2% of VC respondents had deprioritised this compared to a year ago, with responses consistent across all stage focuses.



The acquisition of InstaDeep by BioNTech allows us to aim higher and build things in a more long term perspective.

Karim Beguir

Co-Founder & CEO, InstaDeep

As a startup, you're always focused on generating revenue and managing investors, but now, this has meant our sense of urgency is focused around Deep Tech innovation and addressing global challenges. When I co-founded the company, the goal was to build AI that benefited everyone, and the backing and support of BioNTech allows us to take things to the next level.

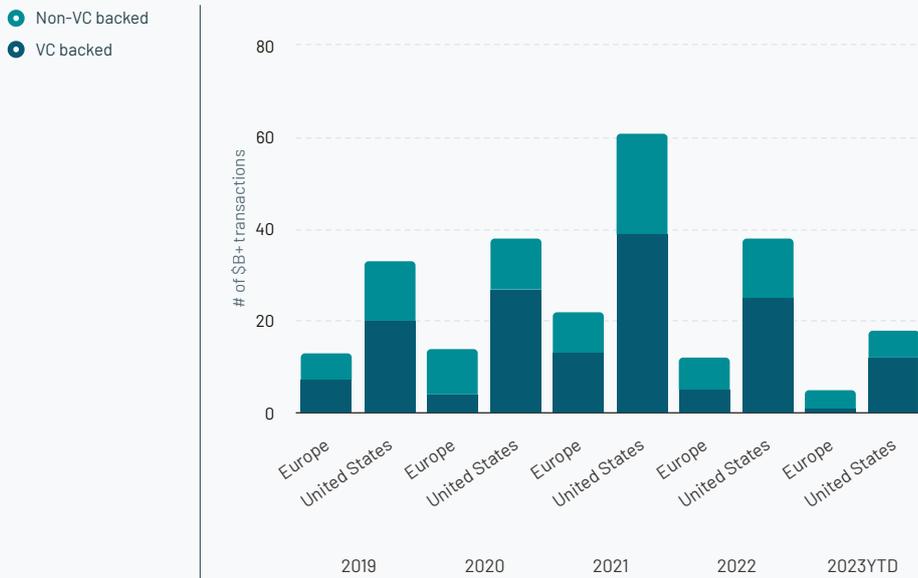
M&A as an important route to \$B+ outcomes

M&A is a critical feature of any healthy industry, providing a path to new opportunities and liquidity for any company, whether VC-backed or not. The European tech industry is no different. Over the past five years, 68 technology companies from the region have been acquired in transactions valuing the companies at over a billion dollars, of which 30 (44%) were VC-backed. This compares to 168 billion-dollar acquisitions of US tech companies over the same period.

Not surprisingly, 2023 has recorded the lowest number of \$B+ M&A transactions for many years, both in Europe and in the US. But despite a much slower market, Europe has still seen five \$B+ acquisitions of tech companies this year to date, though only a single VC-backed company is within that cohort.

It should be noted that these numbers include acquisitions of both private companies and take-private transactions involving formerly publicly-listed tech companies.

Number of \$B+ M&A transactions per year, by region and VC-backed or not, 2019 to 2023



Notes:
S&P Capital IQ
Platform, as of date 30
September 2023, for
illustrative purposes
only.

Sources: **S&P Global**
Market Intelligence

Largest M&A transactions of 2023

The largest transaction this year is the proposed majority acquisition of Worldpay, by private equity firm GTCR for an implied enterprise value of \$18.5 billion.

Private equity has generally been a strong theme in European tech in 2023, with financial sponsors responsible for three of the top 5 largest M&A transactions in Europe this year. Three of these (SimCorp, Software AG and Kahoot!) involved public-to-private transactions.

Top 5 largest M&A transactions by disclosed value, 2023YTD

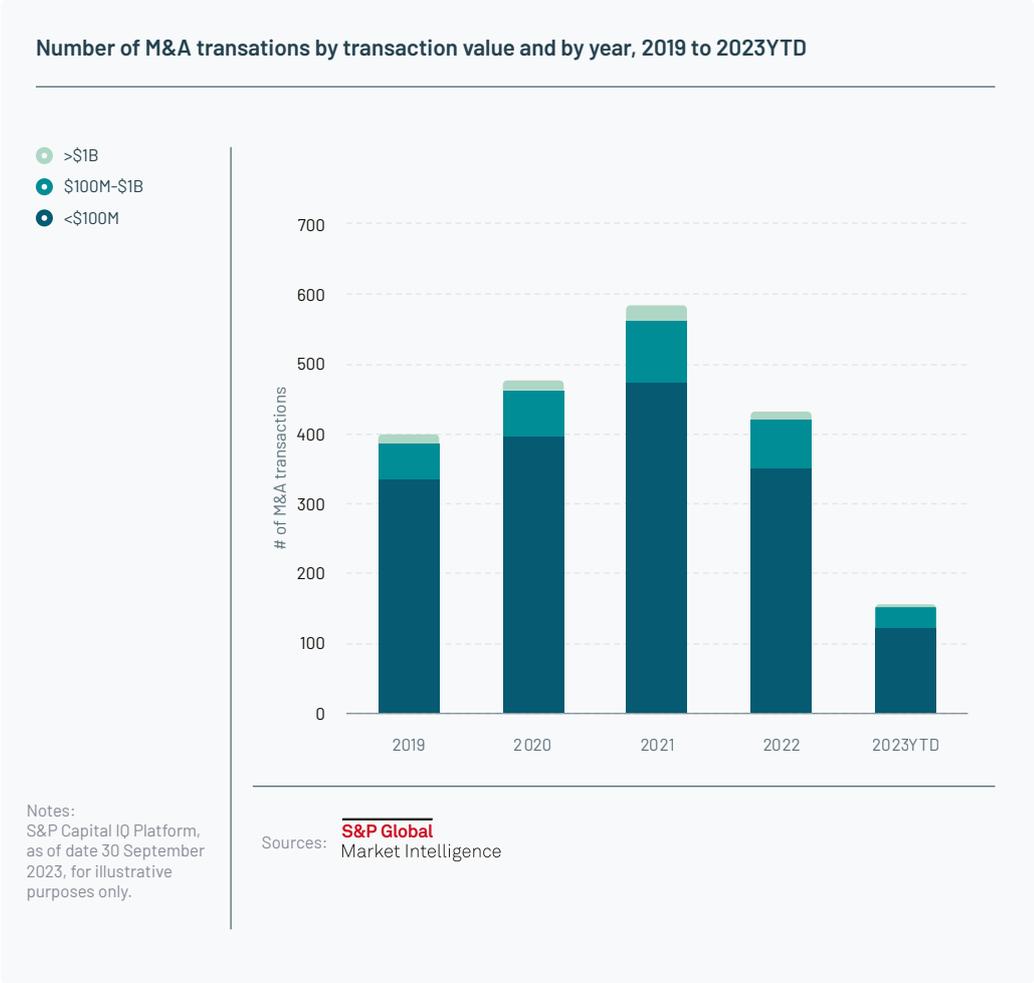
Name	HQ	Acquirer	EV(\$B)	Acquirer type
Worldpay	United Kingdom	GTCR	18.5	Private Equity
SimCorp	Denmark	Deutsche Börse	4.5	Strategic
Software AG	Germany	EQT	2.9	Private Equity
Kahoot!	Norway	Goldman Sachs Assets Management	1.6	Private Equity
Reward Gateway	United Kingdom	Edenred	1.4	Strategic

Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence

Small but mighty sub \$100M mergers

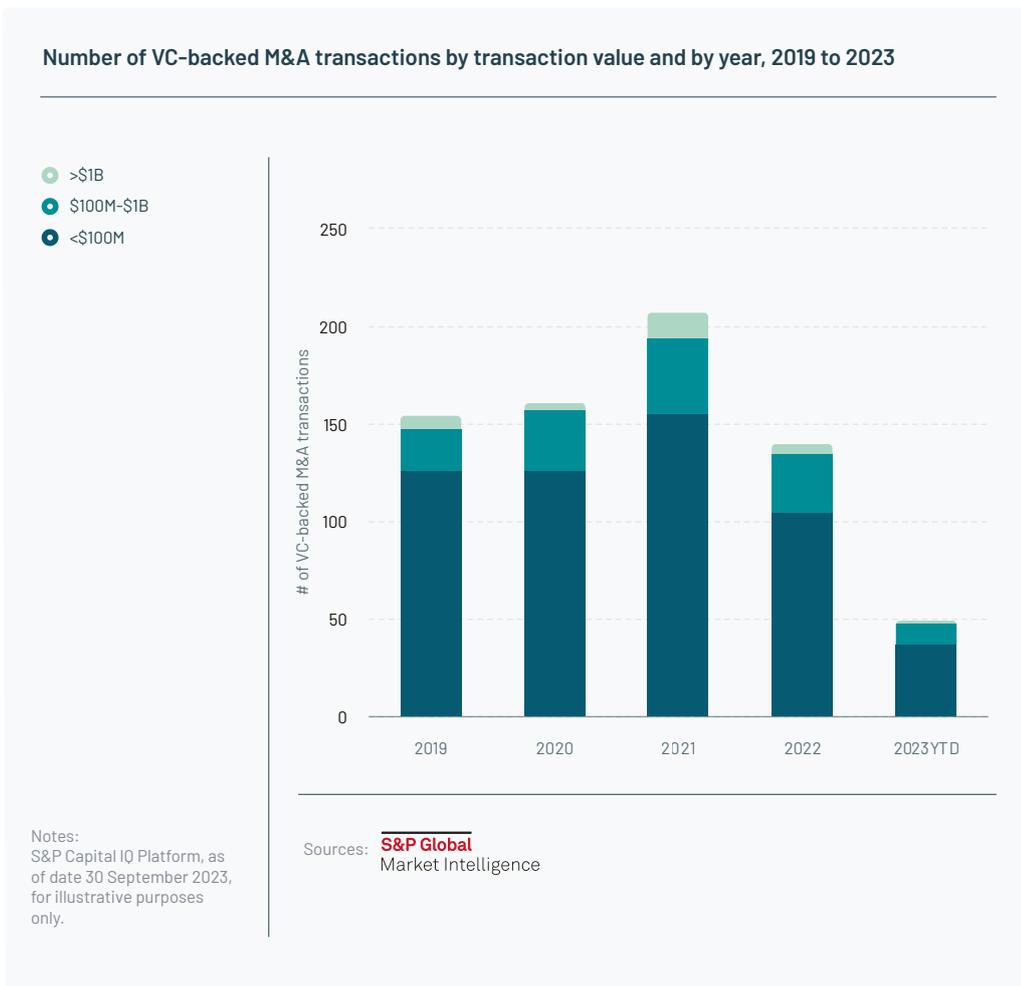
Across all transaction value brackets, 2023 registered a significant decline in the number of M&A transactions. Billion-dollar acquisitions may dominate the headlines, but they do not dominate overall M&A activity by volume. In fact, billion-dollar acquisitions typically only account for a low single-digit share of all M&A transactions in any given year. In 2023, billion-dollar acquisitions made up just 3% of M&A activity in the year to date. As in every other year, the vast majority (77%) of M&A transactions in 2023 were sized at less than \$100M.



M&A still a meaningful exit route for VC-backed businesses

The contraction in overall M&A activity is also clear when looking only at transactions involving VC-backed European tech companies. The volume of transactions has fallen in 2023 across every category when segmented by the size of the transaction in terms of enterprise value.

The mid-sized category involving transactions valued at between \$100M and \$1B has seen a particular slow-down year-on-year. So far in 2023, there have been just 11 transactions in this range, implying an expected full-year count of around 15. This would represent under half the number of similarly-sized transactions (31) recorded in 2022.



VC-backed buyers on the retreat

The reset of the valuation environment - falling back to long-term average multiples - alongside a challenging fundraising environment could be perceived as factors that may drive an increase in 'discount shopping' for potential M&A targets. It's clear, however, that for many potential buyers, it has simply meant putting a pause on M&A in order to focus on stability. This means that VC-backed company buying activity has fallen, mirroring the trends of the overall M&A landscape.

The interesting trend in this chart, however, is looking at the relative importance of VC-backed buyers of tech companies in the US vs. Europe: in Europe, VC-backed companies account for just 23% of all M&A transactions involving tech company targets. In the US, this number is 55%.

This delta can be attributed to the relative maturity of the tech ecosystems. In the US, there is simply a larger pool of at-scale, VC-backed companies that make up the potential buyer universe. This once again underlines the importance of the European tech flywheel. The more the virtuous cycle helps to produce scaled technology companies, the more they will drive higher M&A volumes, helping to accelerate the process of recycling capital and talent in the ecosystem.



In today's uncertain times, we are focusing on strategic value and thinking in the long term. An acquisition has to bring us closer to our strategic objectives, not just increase our ARR. It has to complement our existing product, enhancing our capabilities through both people and tech.

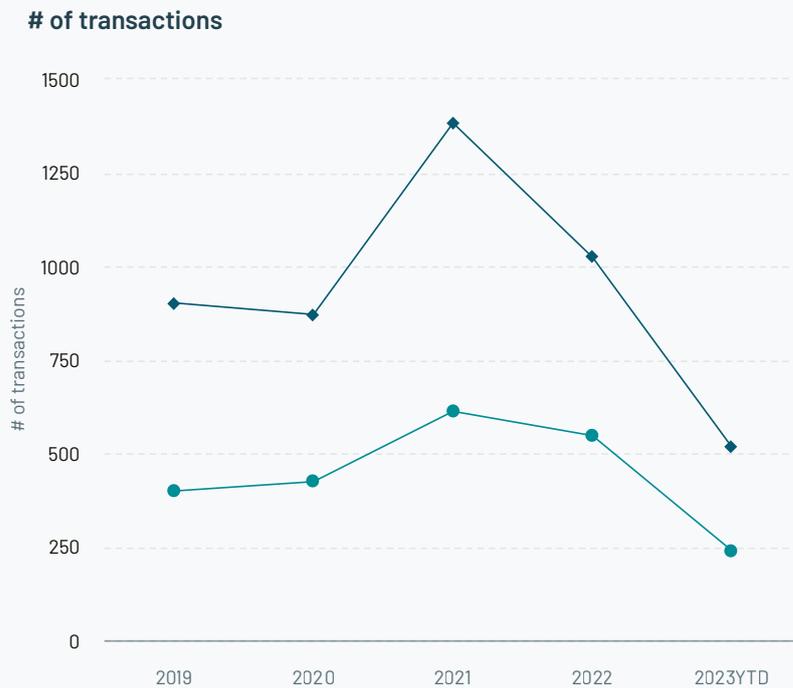
Jordi Romero

Co-Founder & CEO, Factorial

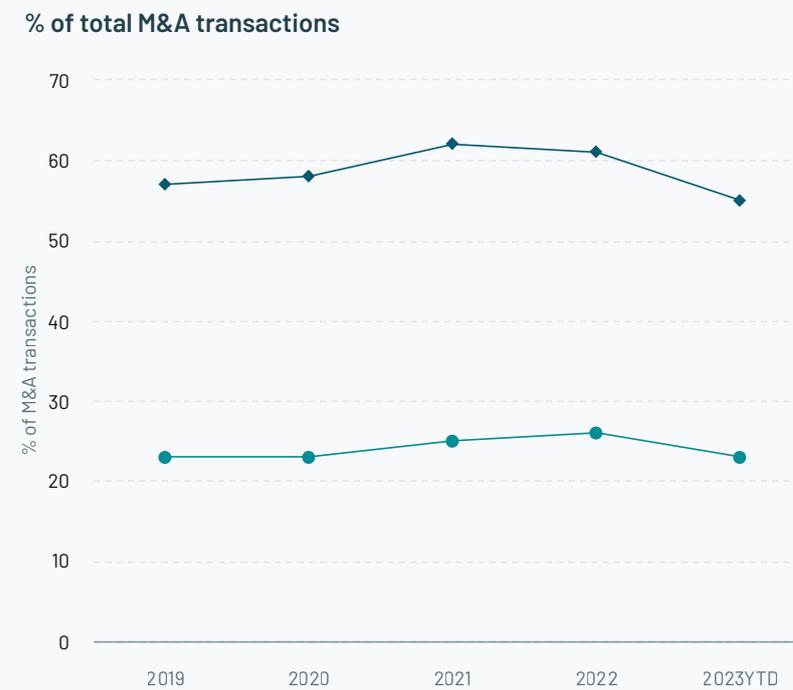
Additionally, nowadays capital efficiency is a priority. For those with cash and/or equity in hand, it is probably one of the best moments to make really good acquisitions. On the other hand, if fundraising is needed for it, the cost of capital can make an acquisition less obvious despite the decrease in multiples. We are also placing a special emphasis on due diligence. We are making an extra effort to assess the financial health, customer base, tech, and cultural fit of the target company. Finally, timing is key. We are being proactive and seizing opportunities as they arise, rather than waiting for more stable conditions. Bucking the trend by acquiring a well-aligned company during uncertain times positions us to continue our growth and success in the future.

Count and share (%) of transactions with VC-backed buyers based in Europe versus United States, 2019 to 2023

- Europe
- United States



- Europe
- United States



Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence

European tech companies are mostly acquired from within Europe

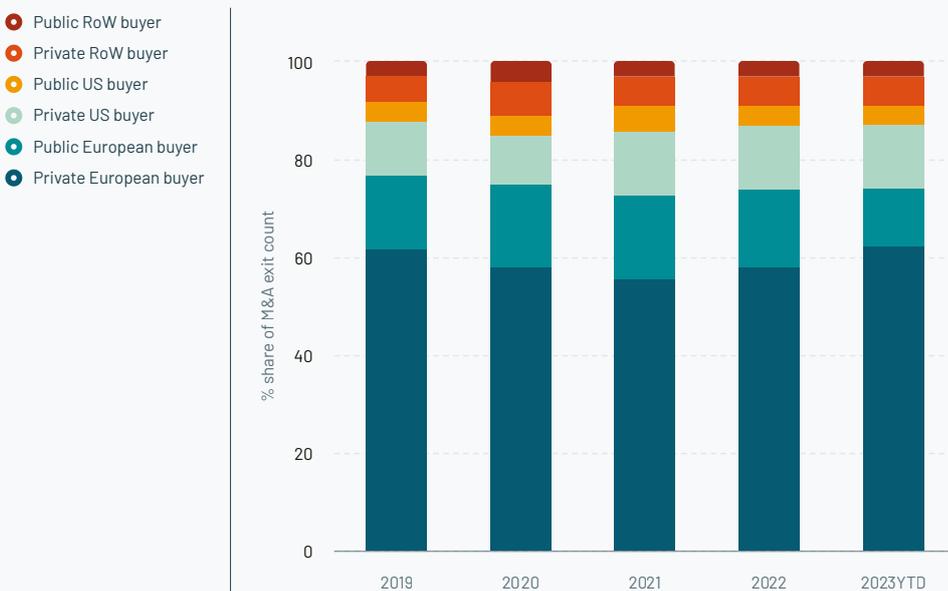
Private European buyers continue to represent the highest share of M&A activity at 63% of the total transaction count. Most of the smaller scale M&A in Europe is a consolidation play, with local players merging to create scale.

This share has been increasing at the expense of Public European buyer activity, decreasing from 17% in 2021 to 12% in 2023 to date. The stock market reset has likely affected the appetite of listed players, with companies putting off potential acquisitions and choosing to maintain cash on their balance sheets.

In total, however, it's clear that European tech companies are overwhelmingly acquired from within Europe, underlining the importance of creating a healthy exit landscape in the region. The combined share of M&A transactions that involve either a private or public European buyer consistently accounts for around three-quarters of all activity, as it did this year (75% of M&A transactions in 2023 involved European buyers).

The distribution of M&A value by buyer type is more volatile, however, given that it is heavily impacted by outsized transactions. This year, for example, GTCR's acquisition of Worldpay meant private US buyers have accounted for 52% of all transaction value in the year to date.

Share of M&A count by buyer region, type and announcement year, 2019 to 2023YTD



Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence

Local tech players have been the most active buyers

Looking at European M&A activity since 2019, the top 10 buyers are all local players with the notable exception of Meta. But no single country dominates, with buyers spanning across the continent from Italy to Norway.

Furthermore, nearly all of the top buyers are tech-first players themselves, excluding the financial services provider Sberbank. For strategic buyers, M&A is the quickest way to scale their customer base or add new features without the need to develop them in house.



Visma

HQ Location - Norway
of transactions: 12



Meta

HQ Location - USA
of transactions: 7



Cegid

HQ Location - France
of transactions: 6



Sberbank

HQ Location - Russia
of transactions: 6



Main Capital Partners

HQ Location- Netherlands
of transactions: 5



SAP

HQ Location - Germany
of transactions: 5



Total Specific Solutions

HQ Location - Netherlands
of transactions: 5



Delivery Hero

HQ Location - Germany
of transactions: 5



MGI

HQ Location - Sweden
of transactions: 5



Team System

HQ Location - Italy
of transactions: 5

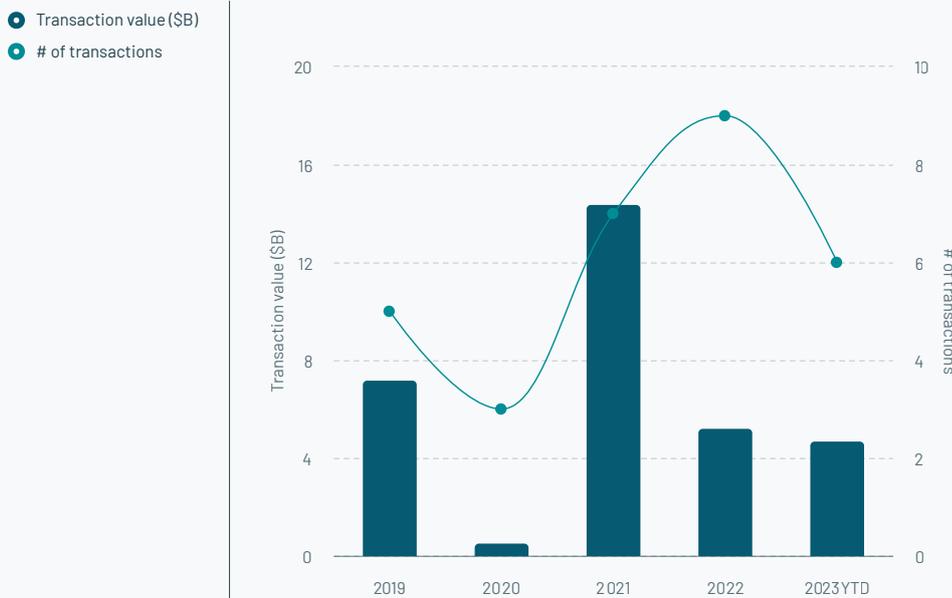
Public to private trend stays active

In both Europe and the United States, the number of take-private transactions by private equity firms increased materially in both 2021 and 2022, fuelled by gigantic fundraises by megacap PE firms and the availability of cheap debt financing. In 2022 alone, 9 public tech companies from Europe and 18 from the US were taken private by PE sponsors, equating to a record aggregate transaction value of \$134B

However, a rapid hiking of interest rates and an increasingly challenging fundraising environment have since moderated buyer appetite and slowed (but certainly not diminished) the pace of PE take-privates of public tech companies.

In 2023 to date, 6 companies with a total value of \$5B in Europe and 8 companies totalling \$32B of value in the US have been taken private by PE firms. The most sizeable of these are the take-privates of Qualtrics International (\$11B, led by Silver Lake) in the US and Software AG (\$3B, Silver Lake) in Europe.

Announced and completed take-privates in Europe and US, by transaction value (\$B) and count, 2019 to 2023



Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants.

Sources: S&P Global
Market Intelligence

Enormous cash firepower sitting on the sidelines

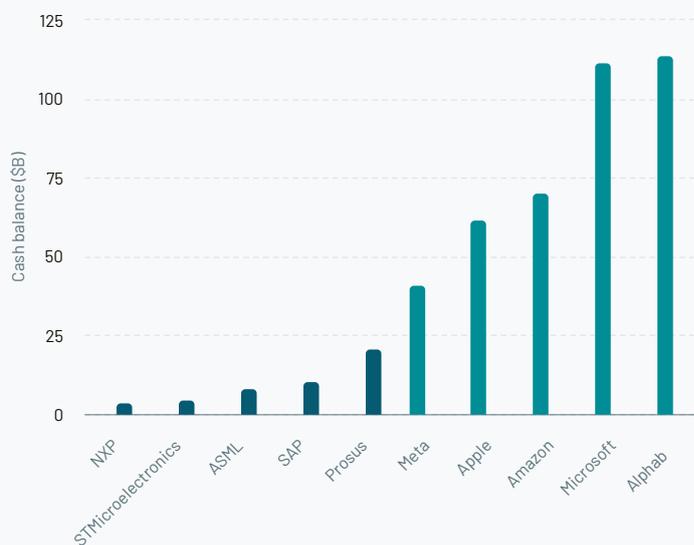
It's fair to assume that PE will continue to be an important driver of M&A activity in the European tech ecosystem, especially when the interest rate environment eases debt financing considerations. Globally, the dry powder held by PE firms is at record levels, sitting at \$2.3T as of 30 September 2023. This has effectively tripled in scale over the past decade.

Separately, corporate buyers are also sitting on huge cash balances that could be used to fuel M&A activity. The five largest US public technology companies cumulatively hold balance sheet cash levels of nearly \$400B. By comparison, the five largest European public technology companies have an aggregate cash balance of just under \$50B.

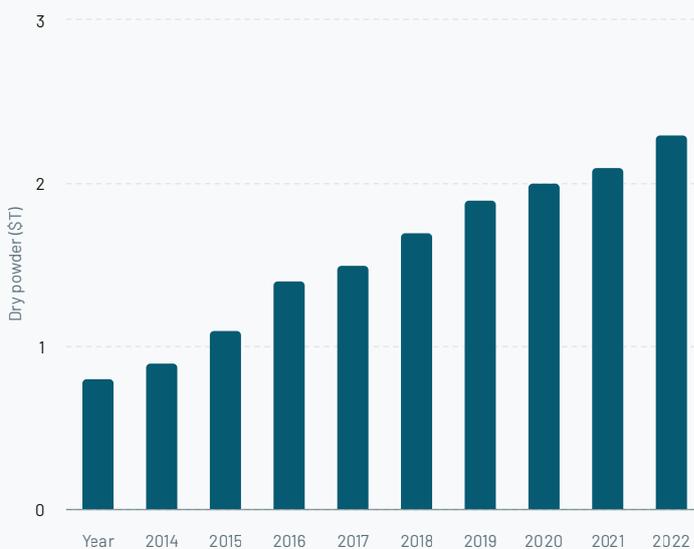
Global Private Equity dry powder and cash balances of selected tech companies

- United States
- Europe

Top cash balance of US and European tech companies



Global Private Equity dry powder



Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only. Ranking is based on cash and short term investments.

Sources: **S&P Global** Market Intelligence

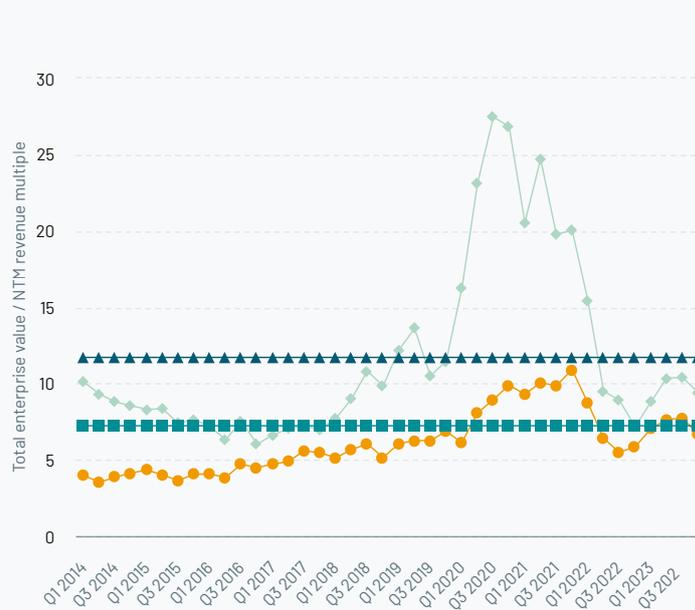
Publicly-listed tech showing signs of recovery

In the public markets, one story of 2023 has been the stabilising and recovering of multiples. While the highs of 2021 remain distant peaks, the median enterprise value to next-12-months (NTM) revenue - after sinking below average through most of 2022 - rebounded back above this line early this year, only to dip just below it in October 2023. The multiple for companies trading in the top quartile, meanwhile, is still hovering below the long-term, 10-year average.

It is this recovery in multiples, coupled with reduced volatility, that helped to lay some of the necessary groundwork for an initial reopening of the IPO window in late-2023. More significantly, it will continue to be crucial, along with confidence in strong post-listing performance, in setting the stage for an even stronger increase in IPO activity in 2024.

NASDAQ-100 Technology Sector Index - Total enterprise value / NTM revenue multiple in time

- Median multiple
- Average for top revenue efficiency quartile
- Last 10 year average median
- Last 10 year average top quartile multiple



Notes:
Where revenue efficiency is the total of unlevered free cash flow margin and revenue growth. S&P Capital IQ Platform, as of date 31 October 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence



I am more optimistic about European tech but my optimism actually has little to do with recent public market ups and downs.

Eric Liaw
General Partner, IVP

I believe that the tech world is flattening with the continued development of talent pools around the world (including of course across Europe), reduced friction to global distribution of technology products (via cloud & mobile platforms) and greater ambition and aspirations of European entrepreneurs. It's an exciting time to be starting and investing in new technology companies in Europe regardless of what the stock market did yesterday!

More public tech firms in Europe

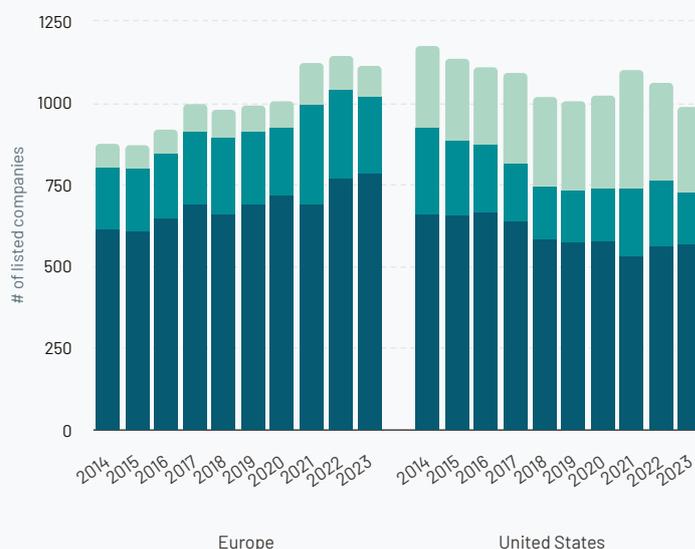
With the IPO window effectively having been shut since early 2022, very few tech companies have chosen to list. As a consequence, the overall count of public tech companies has fallen in both Europe (down 3% year-on-year) and the US (-7%). This has been compounded by take-private transactions as well as company failures.

Looking at the past decade, there are very different trajectories observable in Europe and the US. While Europe's count of public tech companies has expanded by more than 200 since 2014, it has declined by almost 200 in the US.

It's important to note, however, that this does not tell the full story. European stock exchanges are full of small- and mid-cap companies, many of whom have market caps of less than \$100M. This is a consequence of the fact that public markets in Europe have historically been important sources of growth capital in the historical absence of a well-developed ecosystem for private capital.

Count of public tech companies in Europe and the US, 2014 to 2023

- \$1,000M+
- \$100-1,000M
- Sub \$100M



Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence

More delistings is a feature, not a bug

Once listed, most European companies tend to stay listed in Europe. Looking at companies that first listed ten years ago, only 10% have ceased trading since their IPOs. The share of delisted IPOs is much higher in the United States, where the equivalent share of delisted 2014 IPOs stands at 35%. Over time across all listing year vintages, there is a consistent trend for listed US tech companies to subsequently delist at much higher rates than in Europe.

The reasons for delisting vary, of course, from being forcibly delisted, to going out of business, or to being acquired through consolidation or financial sponsors.

While a higher level of delistings might look like an issue, it's actually a feature of functioning capital markets that have a high level of liquidity driving the efficient recycling of capital and value. In this context, the higher delisting share among public US tech companies is representative of a deeper and more liquid capital market environment that supports buyer activity. This is similar to the fact that higher levels of M&A activity are also a feature, not a bug, of healthy equity capital markets.

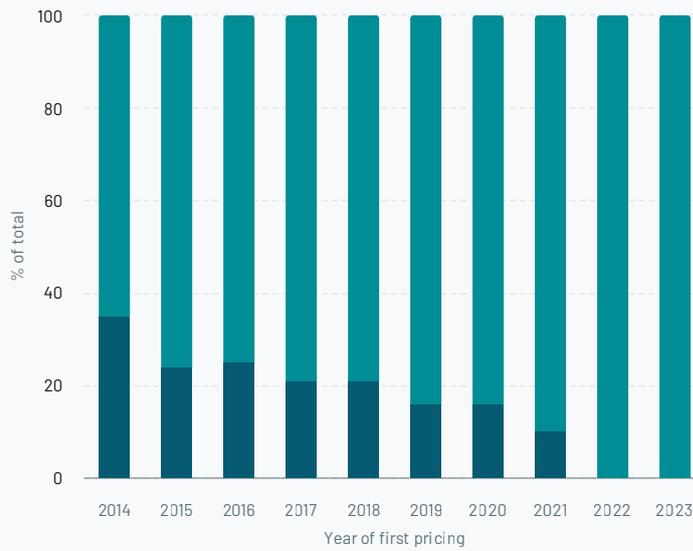
Share of delisted companies in Europe and US by year of first pricing, 2014 to 2023

- Listed today
- Delisted since first pricing

Europe



US



Notes:
S&P Capital IQ
Platform, as of date 30
September 2023, for
illustrative purposes
only.

Sources: **S&P Global**
Market Intelligence

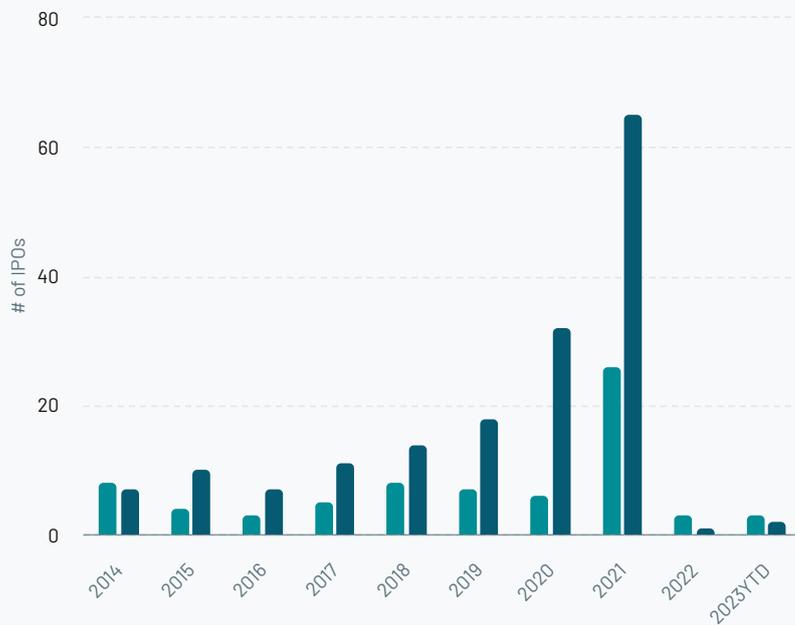
Volume of \$B+ IPOs remains at long-term lows

The full scale of the IPO activity pullback is best observed over a longer time period. 2021 stands out as a truly exceptional year, with a combined 91 \$B+ listings on record, with the following two years plummeting since the peak of public market valuations in November 2021.

The volume of \$B+ tech listings is still far behind pre-2021 levels, with just three recorded in Europe and two in the US so far in 2023.

Count of \$B+ IPOs in Europe and US, 2014 to 2023

- Europe
- United States



Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence

Class of 2023 \$B+ IPOs receive mixed welcome

Despite the general quiet of the public markets, Europe still managed to record a total of three billion-dollar market cap tech IPOs in 2023, capped off by ARM's massive \$55B IPO in Q3 2023.

Whether or not ARM represented the start of a long-awaited set of market 're-openers' is yet to be seen. The relatively flat post-IPO performance of ARM's share price is likely to give food for thought to some candidates until a clearer sense of price stability is established.

The self-inflicted challenges surrounding the CAB Payments listing, meanwhile, are less likely to embolden other candidates in the IPO pipeline. Thanks to an unexpectedly stark profit warning just weeks after IPO-ing, CAB Payments has lost 81% of its market cap, as of the time of publication.

The drop in CAB Payments' market cap has been the steepest, while ARM and IONOS are standing at -5% and -30% compared to their first day of trading.

Notably, ARM chose to list in the US over a local listing in the UK, despite intense lobbying efforts from the UK government and other UK stakeholders.

It's clear that there is still much work to be done to make listings on European exchanges the preferred gateway to the public markets for Europe's largest and highest-profile tech companies.

\$B+ listings in Europe, 2023

Name	HQ	Market Cap at first pricing (\$B)	Latest Market Cap (\$B)	% price change	Quarter of listings	Listing Venue
Arm Holdings	United Kingdom	54.5	51.8	-5%	Q3	Nasdaq Global Select
IONOS Group	Germany	2.8	1.8	-30%	Q1	XETRA Trading Platform
CAB Payments	United Kingdom	1	0.2	-81%	Q2	London Stock Exchange

Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence

Europe's most valuable public tech companies rebound

The rebound of the public markets in 2023 is reflected in the share price and market cap evolution of Europe's most valuable public tech companies.

All but one of the top 10 most valuable companies has increased their average daily market cap in 2023 vs. their average daily market cap in 2022. In fact, the peaks of 2021 are even in sight for some, including ASML, Europe's most valuable technology company.

Change in average market cap of Europe's Top 10 largest tech companies (as of Q3 2023), 2021 to 2023

Company	HQ Country	Year Founded	2021 Market Cap (\$B), average	2022 Market cap (\$B), average	2023 Market Cap (\$B), average
ASML	Netherlands	1984	287	226	259
SAP	Germany	1972	163	120	150
Prosus	Netherlands	1994	158	84	94
Arm Holdings	United Kingdom	1990	N/A	N/A	54
Dassault	France	1981	66	54	53
NXP Semiconductors	Netherlands	2006	55	46	49
Infineon Technologies	Germany	1999	55	39	48
Adyen	Netherlands	2006	79	51	43
STMicroelectronics	Switzerland	1987	37	34	42
Experian	Ireland	1826	37	32	32

Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only. The average market capitalisation is used to give a representation of the stock price performance over the year, rather than anchored to specific trading days

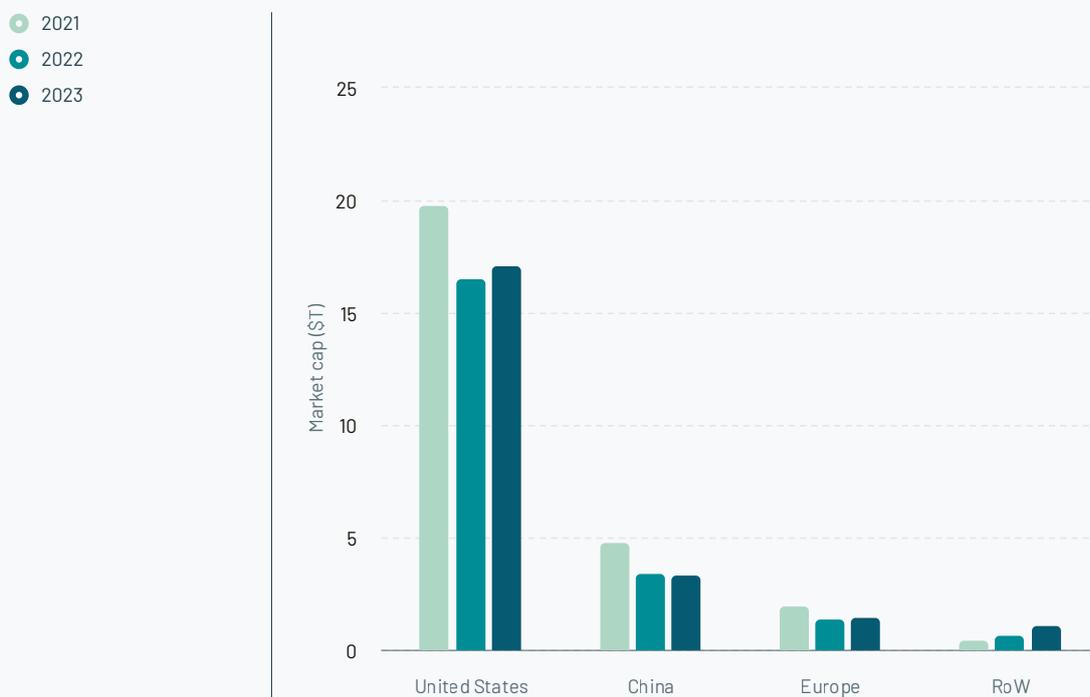
Sources: **S&P Global**
Market Intelligence

US dominates global public tech market cap

Global markets are showing signs of stabilisation. With the exception of China, all global regions have seen some recovery in public market values since the 2021 peak.

The United States continues to dominate, capturing 70% of the global market cap at \$17T. At just \$1.4T in total market cap, Europe captures only a mid-single-digit percentage (6%) of the total public market capitalisation of global technology companies, despite capturing four positions within the top 10 countries by tech market cap.

Total market cap (\$T) per region, 2021 to 2023



Notes:
S&P Capital IQ Platform, as of date 30 September 2023, for illustrative purposes only.

Sources: **S&P Global**
Market Intelligence

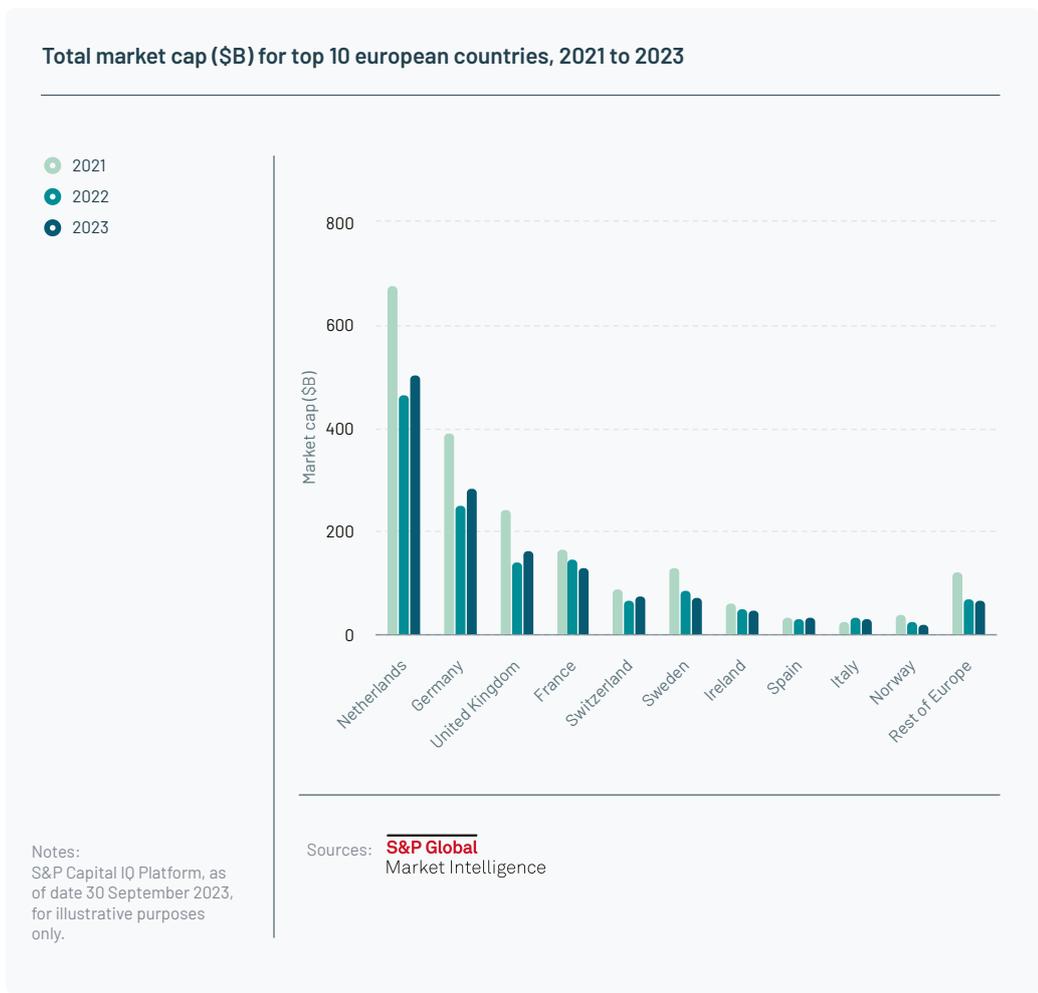
European market cap concentration

The Netherlands continues to lead Europe in terms of total public tech market cap. It is also home to four of the top 10 largest European tech companies by public market cap. ASML on its own is a true multi-hundred-billion-dollar European tech giant, accounting for 52% of the Netherlands' total market cap.

Meanwhile, the UK leapfrogged France, largely thanks to the ARM mega-listing, which contributed 34% of the country's total market cap in 2023. Without a helping hand from ARM, the UK would have underperformed year-on-year.

Similarly, the German public tech market is heavily reliant on SAP's performance, as it contributes a whopping 53% to Germany's total tech market cap. The stock price recovery of SAP is also reflected in Germany adding \$33M to its market cap.

The European public tech markets continue to be concentrated among a few top players, where the top three account for 35% of the total 2023 market cap and the top 10 for 58%.



End of the SPAC era

In unsurprising news, the SPAC era firmly closed in 2023. This year has not seen a single completed SPAC of a European tech company. This is, of course, a sharp decline from the frenzied activity of prior years with 11 SPACs in 2022 and 14 in the peak year of 2021. The return of SPACs in greater numbers should not be expected any time soon.

Count of European SPACs



SPACs in 2023 so far

Source **S&P Global**
Market Intelligence



“**Issuers have been delaying plans to undertake IPOs on both sides of the Atlantic, as the buy-side remains reluctant to invest given prevailing interest rates and macro-economic, geo-political and fiscal uncertainties.**

Edward Dyson
Partner, Capital Markets, Orrick

As such, we’re seeing growth companies pursue direct listings (supported by shareholder and commercial bank working capital facilities) and reverse mergers/takeovers as alternative routes to market, and we expect to see that trend continue in 2024.

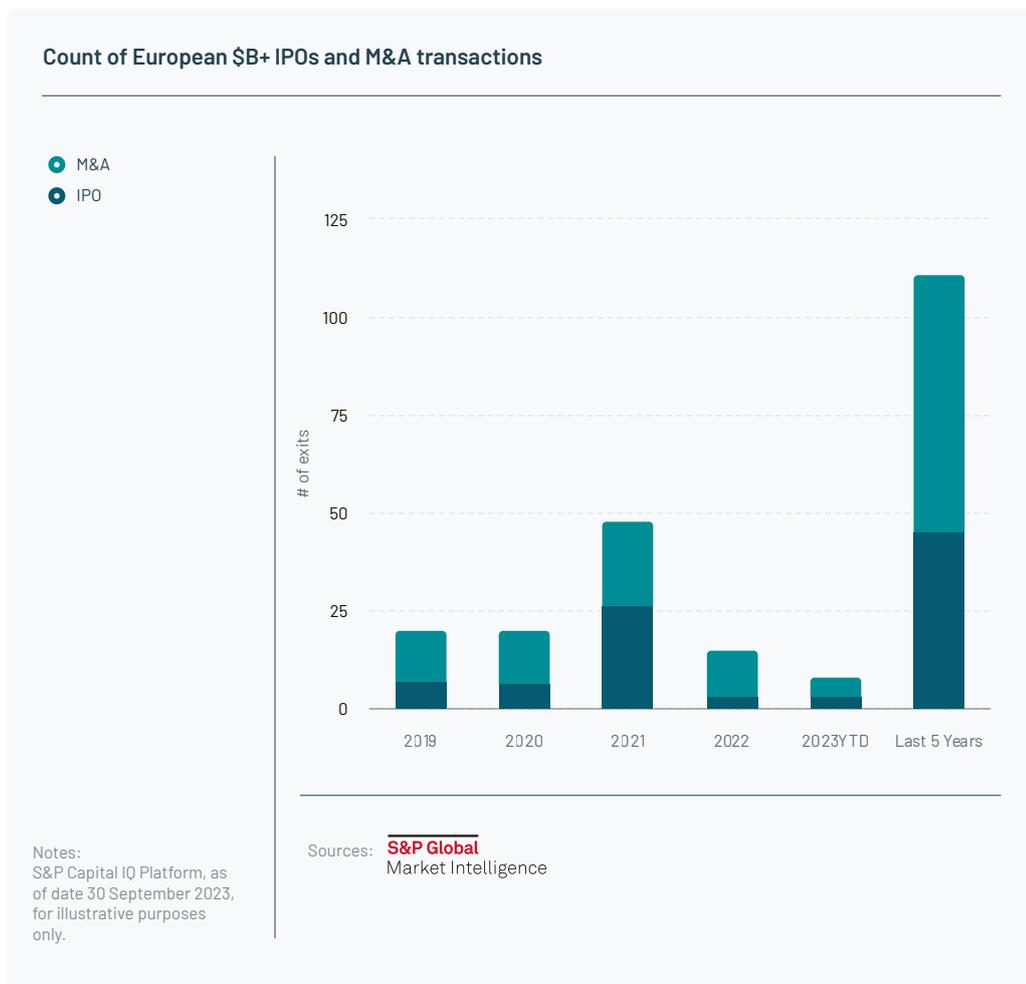
Taking the longer-term view

Despite almost two full years of quiet on the exit front, it's worth taking a longer-term perspective on the state of Europe's ability to produce large-scale companies that succeed in going from founding to a billion-dollar liquidity event.

In the past five years alone, there have been a remarkable 111 billion-dollar exits of European tech companies, the majority of which (60%) have been realised via M&A.

While reaching \$B+ outcomes via initial public listings has been somewhat less common than via M&A for European tech companies historically, the reopening of the IPO window and the development of deep and liquid public capital markets is a critical factor for the long-term health and progress of the European tech ecosystem.

As this report has consistently highlighted, outsized exits are an important component of the European tech flywheel, with success stories unlocking capital and talent as well as inspiring the next generation of founders.





We have recently seen a very healthy market correction separating “vitamin” from “painkiller” applications and stopped trying to copy Silicon Valley. Instead we started to be more self confident building on Europe’s very own strengths and DNA to build an ecosystem that unlocks our full potential.

Robert Lacher

Founding Partner, Visionaries Club

I am very excited about Europe’s future IPO pipeline. Overall we are at an inflection point of global tech seeing a dramatically accelerated technology adoption in B2B: There is no economic reason for any part of the value chain not to be digitized in the long run if there is potential to streamline and automate processes. This time we are in a strong position in Europe to shape the next wave of disruption in B2B: Europe is home to many global industrial world market leaders, most of them built on legacy technology with the potential to be either disrupted or enabled by new digital technologies. Europe is home to some of the global leading tech universities as sourcing ground to bring up new tech founders! The initial result are global category leaders born out of Europe such as Celonis, UiPath or Miro with the next generation such as Aiven, Pigment or Tacto on their toes to follow the trend.

Europe’s never had a stronger pipeline of billion-dollar exit candidates

The pipeline of mature European tech scaleups that are on an IPO trajectory has never been stronger. There are more than 120 credible candidates in the cohort of potential near- and medium-term IPOs when screening for a variety of factors, including scale, maturity and leadership team strength, among others.

Many more waiting for their turn

126

potential \$1B+ exits companies in the pipeline

Source **atomico** Powered by



crunchbase

06



Partners	245
SOET Champions	249

SOET Community

Let us take a bow. . .

The State of European Tech is an endeavour borne of extensive partnership and collaboration across the ecosystem. We are so grateful to all the people who make this happen.

6.1

Partners

The State of European Tech is a massive endeavour...

And our partners make it possible. The data, insights, passion and deep expertise our partners bring make it possible to both build this report and make it the definitive take on European tech. From the vast amounts of data they deliver to the detailed analysis they collaborate with us on, a huge hats off to our amazing partners.



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Invest Europe is the association representing Europe's private equity, venture capital and infrastructure sectors, as well as their investors. Invest Europe has over 650 members, split roughly equally between private equity, venture capital and limited partners – with some 110 associate members representing advisers to the ecosystem. Those members are based in 57 countries, including 42 in Europe, and manage 60% of the European private equity and venture capital industry's EUR 1,004 billion of capital under management. Businesses with private capital investment employ 10.5 million people across Europe, 4.5% of the region's workforce.

Invest Europe aims to make a constructive contribution to policy affecting private capital investment in Europe and provides information to the public on Invest Europe members' role in the economy. Invest Europe's research provides the most authoritative source of data on trends and developments in the PE/VC industry. Invest Europe is a non-profit organisation with 27 employees in Brussels, Belgium. For more information please visit www.investeurope.eu



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Preqin, the Home of Alternatives™, empowers financial professionals who invest in or allocate to alternatives with essential data and insight to make confident decisions. It supports them throughout the entire investment lifecycle with critical information and leading analytics solutions. The company has pioneered rigorous methods of collecting private data for over 20 years, enabling more than 200,000 professionals globally to streamline how they raise capital, source deals and investments, understand performance, and stay informed.

revelio labs

Revelio Labs is a workforce intelligence company. Founded in 2018, Revelio Labs absorbs and standardizes hundreds of millions of public employment records to create the world's first universal HR database. The company's team of data scientists, economists, and engineers deliver valuable workforce analytics to customers including investors, corporate strategists, HR teams, and governments, empowering them to make actionable, data driven decisions.

ravio

Ravio is on a mission to empower companies to build high performing teams and ensure they are paid fairly, with compensation intelligence designed specifically for high-growth technology companies. With Europe's largest real-time compensation dataset, companies like Delivery Hero, Personio, Alan, Vestiaire Collective, and WeTransfer use Ravio to attract, retain, and motivate world class talent. You can learn more at [Ravio.com](https://ravio.com).

6.2

SOET champions

The SOET Champions

Each year we are overwhelmed by the passion and commitment of European tech ecosystem members and the community this report brings together. We would like to say a particular thanks to our SoET Champions, whose expertise, collaboration and support have been invaluable, and made this year's State of European Tech possible.

An enormous thank you to those who have been on this year's State of European Tech journey with us from start to finish: our amazing team of content creators, website builders, editors, thought partners and data crunchers.



Matt Cowan
MediaWorks



Suzannah Leigh
SLD Ltd.



Marcus Kelly
Kelly Vision Presentations



Michael Vromans
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Paul Jitta
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Lucrezia Lo Sordo
Invest Europe



Charlie Farber
Pitchbook



Ilja Hauerhof
S&P Global Market
Intelligence

A shout out to our Atomico team

We would also like to give a special thanks to our Atomico colleagues, whose expertise, insight and guidance throughout the making of this year's State of European Tech has been invaluable.



Suzie Bullivant
Atomico



Gareth Carless
Atomico



Harry Uglow
Atomico



Daniel Manson
Atomico



Rachel Stevens
Atomico



Nick Hayes
Atomico



Kasit Rochanakorn
Atomico



Jonathan Woolley
Atomico



Arabella Reeves
Atomico



Camilla Richards
Atomico

Spreading the survey far and wide

Finally, to the SoET champions who helped us share the survey far and wide. We had a record number of survey participants this year: thank you for helping us reach founders, investors, policymakers, tech employees and others to truly measure the sentiment of the industry.



Bryce Keane
Atomico



Josiah Price
Atomico



Shamal Thakar
Atomico



Angie Tran
Slush



Daniele Masiello
Booster Box



David Cruz e Silva
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Andreas Munk Holm
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Paola Bonomo
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The Atomico team behind this year's State of European Tech



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