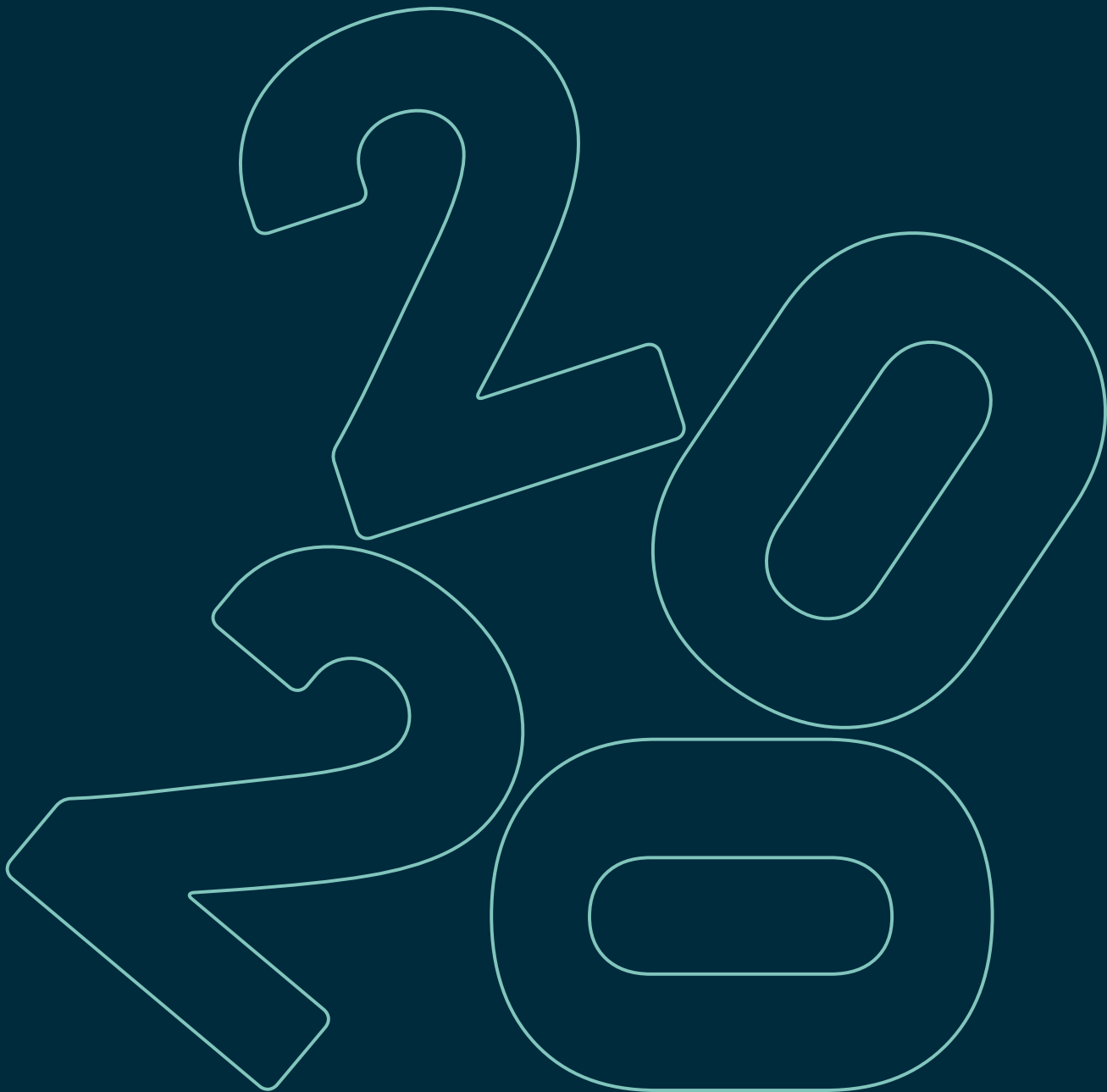
atomico

In Partnership with SLUSH & orrick

and support from svb Silicon Valley Bank

The State of European Tech

The most comprehensive data-driven analysis of European technology



Behind the scenes at the State of European Tech 2020 report launch

Contents

At the end of 2019, European tech was in its strongest ever position.

VC CAPITAL RAISED	VC CAPITAL INVESTED	$B+ VC-BACKED COMPANIES
>$16B	$39B	99

2019

2020

But the Covid-19 pandemic and resulting economic shock threatened to derail a decade of progress.

TOP 3 MOST CITED CHALLENGES FOUNDERS FACED IN 2020

46% Access to capital

32% Pivoting the product

30% New sales declining

SOURCE: The State of European Tech Survey

> Although we hadn't scheduled video consultation into our product plan, it's what frontline NHS staff needed immediately. Most GPs lacked the tools to do this, and we knew we had the capability to develop it. We worked round the clock over the weekend of March 7th and 8th, and by Monday we had released video consulting software and text-message-based pre-appointment screening for COVID-19 to 3,500 practices already using our core SMS messaging software – around 50% of England's practices. We were all hands on deck getting features out. In the space of four weeks, we were in 95% of England's GP practices, and had rolled out six major new features.

Jacob Haddad
Co-Founder, accuRx

Investors and founders prepared for the worst. Governments rushed to provide liquidity.

TECH IN CRISIS

36% 36% decline in capital invested in European tech in Q2 2020 versus Q2 2019

SOURCE: dealroom.co

10% 10% decline in European tech job postings between end of Q2 2020

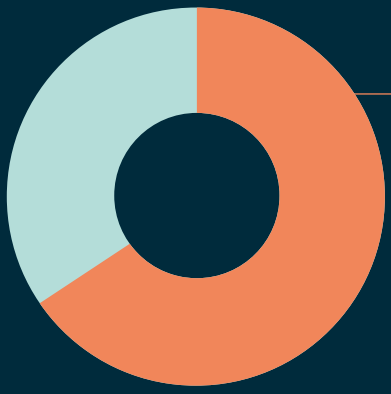
SOURCE: indeed

$11B Governments have injected nearly $11B in relief funds across Europe

SOURCE: dealroom.co

The Black Lives Matter movement cast a spotlight on the massive racial inequity in the European tech ecosystem.

OPPORTUNITIES NOT EQUALLY DISTRIBUTED IN TECH



61%

Black/African/Caribbean tech workers believe their background and/or identity makes it harder to succeed in the European tech industry

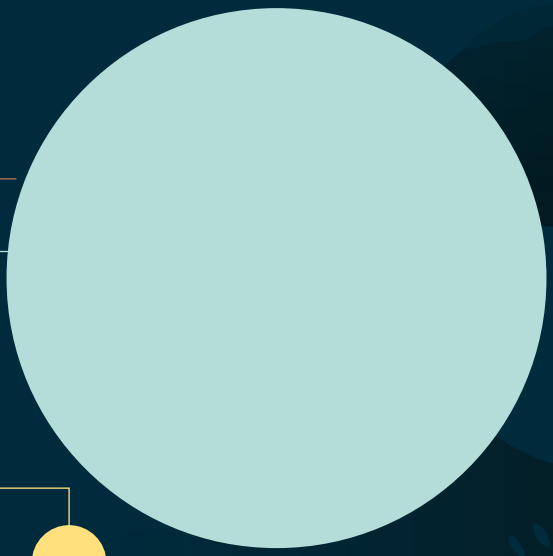
SOURCE:
The State of European Tech Survey

FUNDING GAP

EUROPEAN TECH

91%

of total capital invested in European tech in 2020 went to all-men founder teams



9%

of total capital invested in European tech in 2020 went to teams with at least one woman founder

UK TECH

0.2%

of total capital invested in UK tech in 2009-2019 went to Black founding teams

99.8%

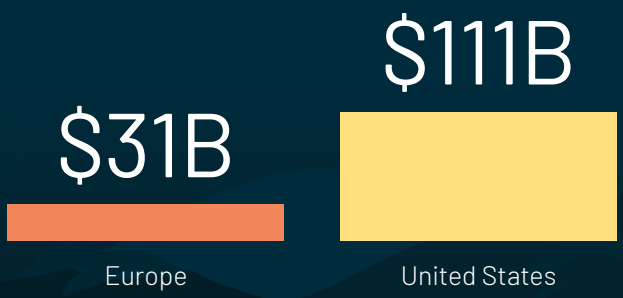
of capital invested in UK tech between 2009 and 2019 went to founding teams that are not all Black

SOURCE: Extend Ventures

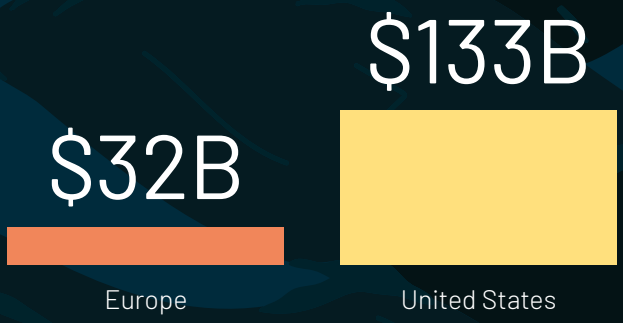
The liquidity of the European exit landscape has been overshadowed by a bumper year for tech IPOs (and direct listings and SPACs) in the US.

US TECH IPOS DWARFED THOSE IN EUROPE

TOP 5 IPOS IN 2020



TOP 10 IPOS IN 2020

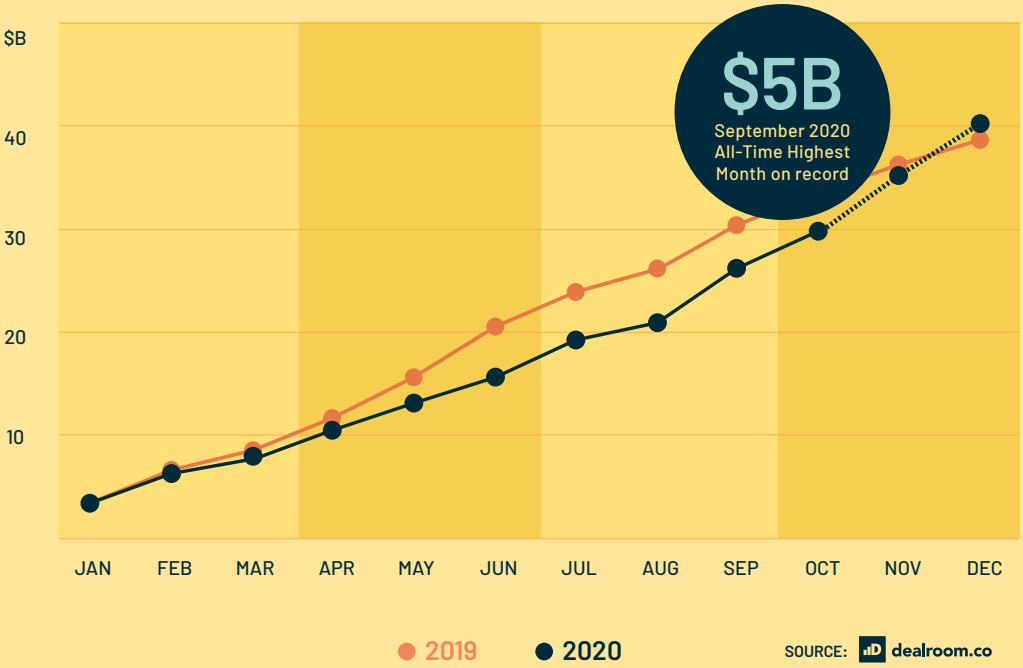


SOURCE: London Stock Exchange, S&P Global

But Europe's ecosystem weathered the storm

AGAINST THE ODDS, ANOTHER RECORD YEAR OF INVESTMENT

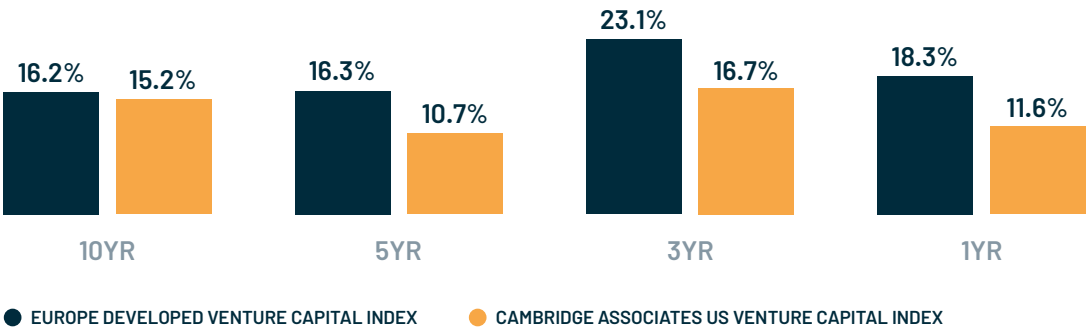
Total capital invested ($B) by month for 2019 and 2020 (cumulative)



SOURCE: dealroom.co

European VC is standing on its own feet, continuing its outperformance versus other key indices...

HORIZON POOLED RETURN BY FUND INDEX, JUNE 2020



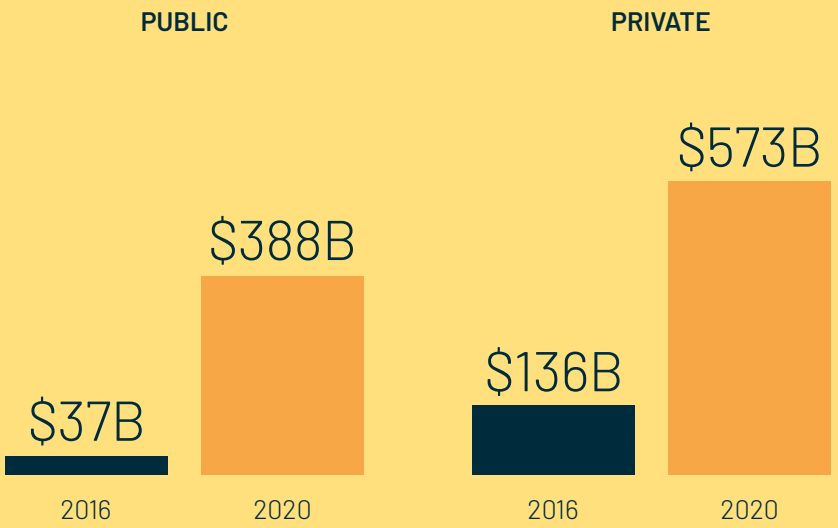
SOURCE: CAMBRIDGE ASSOCIATES

European tech grew massively

5.6x

ECOSYSTEM VALUE

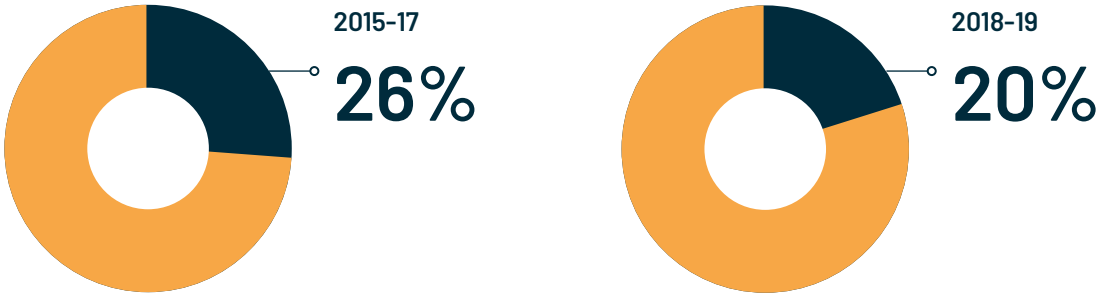
Total estimated enterprise value ($B) of European tech companies founded after 2000, in private and public markets



SOURCE: dealroom.co S&P Global London Stock Exchange

...and reducing its dependence on government agency funding.

VC FUNDS RAISED FROM GOVERNMENT SOURCES AS % OF TOTAL



SOURCE: INVEST EUROPE

Europe's most successful companies continued to break records, whether hitting record valuations as private companies, scaling at record speeds or reaching new heights in the public markets.

TOP 10 LARGEST FUNDING ROUNDS

FASTEST EVER EUROPEAN TECH COMPANY TO HIT $1B+

17 months from founding to a **$2.1B** valuation

EUROPEAN WINNERS SCALING TO NEW HEIGHTS

Spotify and Adyen both surging past **$50b**

Spotify >$50b

adyen >$50b

The transition to remote working has presented new hurdles for startups. But it's also challenged assumptions about geographical barriers in tech. The idea that great companies can come from anywhere has never been more true.

GREAT COMPANIES CAN COME FROM ANYWHERE

40 European towns and cities have now produced $1B+ companies

SOURCE: dealroom.co

Purpose-driven European tech entrepreneurs are raising record amounts to try and solve some of the world's biggest problems with the climate crisis top of the list.

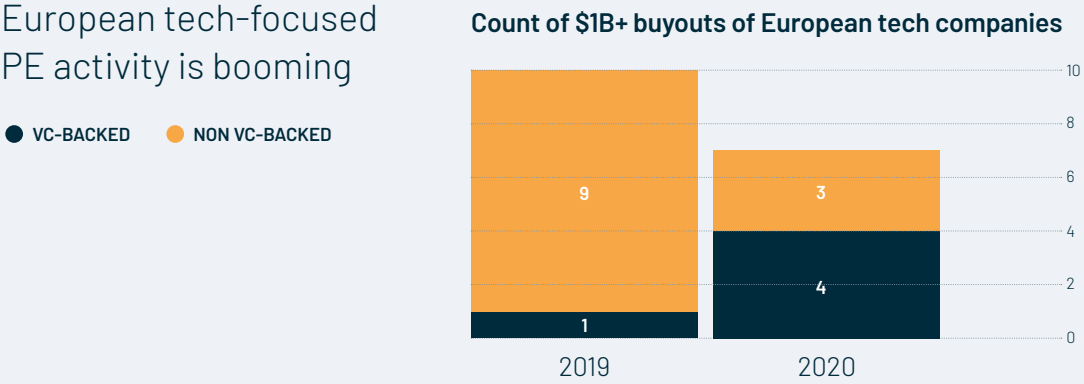
SOLVING THE WORLD'S BIGGEST PROBLEMS

SOURCE: dealroom.co

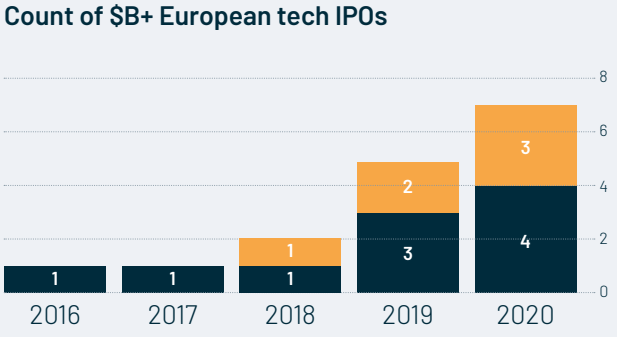
An ever closer union of the historically separate islands of venture tech investment, tech-focused PE and the public markets is injecting liquidity and scale into European capital markets.

EVER CLOSER UNION

European tech-focused PE activity is booming



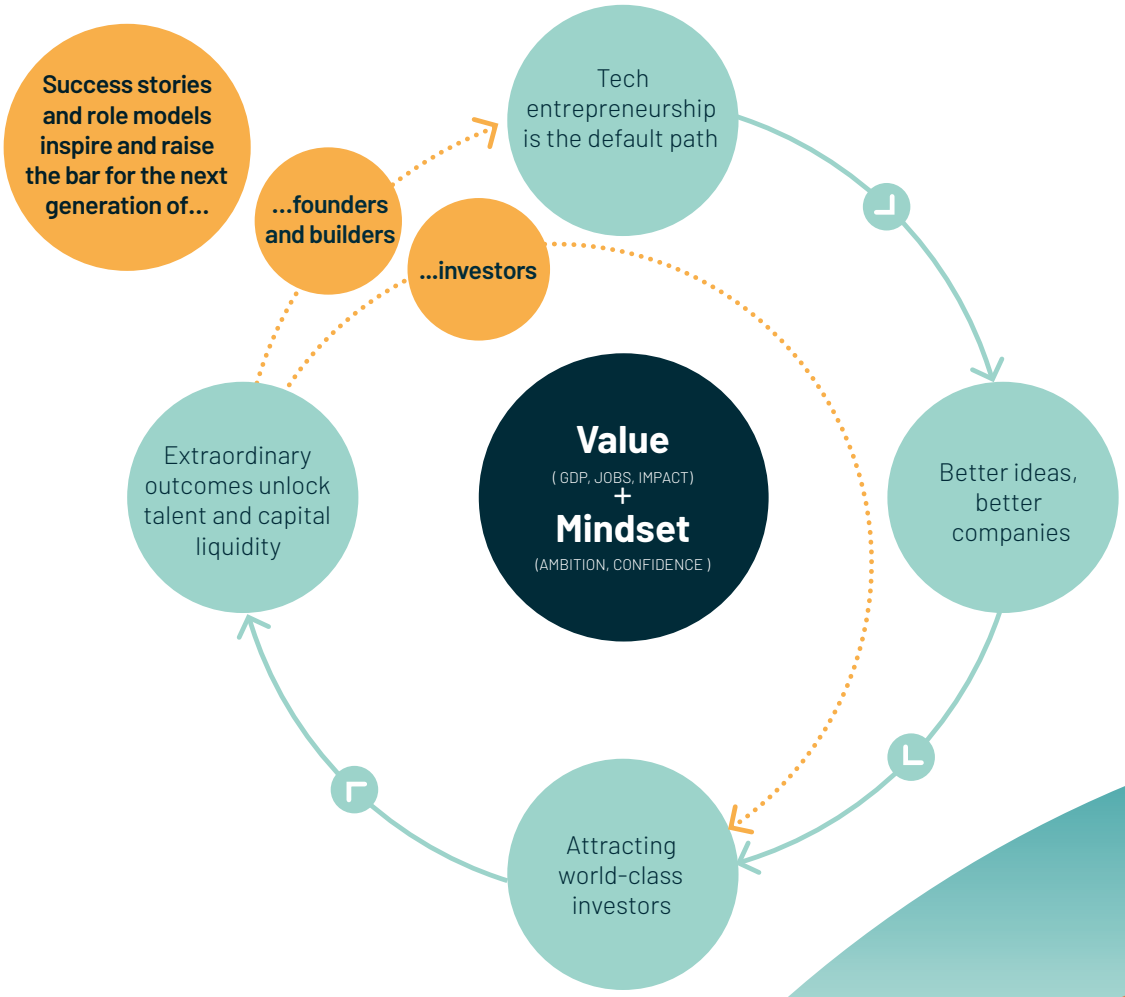
Europe's largest public tech-companies are increasingly venture-backed



SOURCE: dealroom.co

European tech keeps moving forward, but to pick up the pace, we've got to continue to retain and reinvest value in the next generation. It's the time to double down, not be complacent.

THE EUROPEAN TECH FLYWHEEL



Let's write the next chapter

01

The State of European Tech 2020

In a year like no other, did European tech weather the storm?

Despite a series of uncertainties and upheavals, the tech industry was a net beneficiary of the shift to digital brought on by Covid-19, and 2020 is on track to set a new record of capital invested into European tech. We are seeing a growing interplay in European tech between venture capital, private equity and the public markets, creating more M&A opportunities, a strong pipeline of future IPO candidates and a systematic recycling of experienced talent to build new generations of companies. To accelerate this virtuous cycle, Europe needs to see more of its leading tech companies find appropriate paths to liquidity in a way that benefits European builders and investors while retaining its world-class talent.

01.1

Executive Summary

The name "The State of European Tech" is deliberate. Each year we set out a macro snapshot of our ecosystem. We are not seeking to answer every question, but to chart progress and prompt further interrogation of how we can realise European tech's potential.

The report writing process, involving rigorous data analysis, is condensed into an intense four week sprint late in the year. It's an incredible team effort and the generosity of those who give their time is always a highlight of the project. **Of course, one big question dominated our thoughts this year: how would Covid-19 and its consequences affect European tech?** 2019 ended on a high, with a record $38.6B of capital invested, close to 180 $1B+ companies and $16B closed by European venture capital funds. Five years of continuous success had created a solid foundation of belief in European tech, both within our ecosystem and globally. Then the Covid-19 storm hit, trailing in its wake fears of deep economic recession and retrenchment by founders and investors.

The data shows that our ecosystem has more than survived, although not without cost.

European tech has undeniably been a net beneficiary of the shift to digital.

Total investment is projected to exceed a record $41B in 2020, driven by an increase in $100-250M "megarounds". We should not forget how far we've come in just five years. In 2016, a panel at Slush – the conference run by our partner on this report – discussed "How To Raise Above $10M in Europe". In 2020, no one blinks at a $10M seed round.

Behind this headline progress sit thousands of individual stories of adversity and resilience.

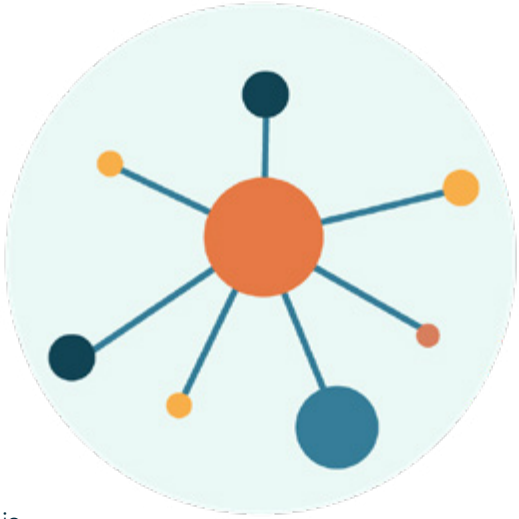
Many founders had a tough ride this year; nearly half of those who responded to our survey said they found it harder to get funding, alongside the challenges of pivoting their products and declining sales. Wellbeing ranked amongst our founders' greatest challenges of the year.

Yet many European companies have continued to rapidly scale.

In November, Hopin set the record for Europe's fastest ever company to hit a billion-dollar valuation: 17 months from founding. We now have 115 VC-backed companies valued at over $1B. Spotify and Adyen hit $50B. $100B valuations are starting to feel inevitable, not aspirational. We no longer need to sell the European tech story to LPs. Institutional investors from Europe and around the world poured three times more money into Europe's tech industry than five years ago. As our ecosystem matures, the share of venture capital funding from government agencies is declining and now accounts for less than 10% of VC funds raised in Europe's most mature markets.

International investment has not dried up as some feared it might this year.

In fact, US investors participated in a record number of rounds. It turns out that when everyone is working remotely, Europe feels even less remote. More people are waking up to the fact that great companies can come from anywhere, great talent can work anywhere, and great investors can invest from anywhere.



I'm sometimes asked for the bear case for European tech. My answer is that we will fail to realise our potential if we do not systematically recycle capital and talent at scale. There is already evidence of this flywheel working.

Alumni of Zalando, Spotify, Klarna, Skype, Just Eat and others are now building a new generation of companies. Nearly 80% of angels who responded to our survey have worked at a tech start-up and or founded their own business.

Data is changing the way businesses are built and run and in many ways, the world itself. We are lucky to work with a number of rigorous, data-driven organisations and individuals who join forces at the end of every year to produce the single most data-driven report on European tech. Turning this data into actionable insights is one of the report's most valuable contributions to the ecosystem. This is why it's critical we tackle data gaps that still exist, especially when it comes to diversity and inclusion. We can only make progress on this important issue - and help European tech reach its full potential - if we understand the problem through data.

Sarah Guemouri
Atomico Senior Associate
and report Co-author

So what needs to happen to accelerate this virtuous cycle?

01 **First, we need to see more of our leading tech companies find paths to liquidity that benefit European builders and investors while retaining our world-class talent.** This means more companies listing on Europe's public markets. There has been significant 'value leakage' in past exits of $1B+ VC-backed European companies, with US listings and M&A buyers accounting for 52% of total exit value. We have a pipeline of IPO candidates valued at over $150B, but despite some major successes such as The Hut Group and Allegro, this year Europe has seen far fewer IPOs than the US, and only three at $1B+. This also means enabling companies that aren't going to be global category leaders to exit early and recycle talent and capital, by creating liquidity at all stages. US companies 'fail faster'; they are 50% more likely to exit after a first round of funding than European companies.

On this front, there are signs of change. Europe's venture capital, private equity and public markets are drawing together in ever closer union, creating more exit options, a strong pipeline of IPO candidates and deeper pools of experienced talent. Over the past couple of years, private equity-led buyouts have emerged as a viable path for VC-backed companies such as Pipedrive and Idealista. As publicly listed VC-backed companies like Adyen, Spotify and Zalando scale further, they will continue to acquire other tech companies. There are signs that traditional companies are becoming active tech buyers: two of Europe's largest VC-backed exits of 2020 were the billion-dollar acquisitions of Flaschenpost by German multinational The Oetker Group and Charlotte Tilbury by Spanish multinational Puig.

02 **Second, we need to see a step change on diversity and inclusion in European tech.** Underrepresented founders have found it even harder to raise capital than their peers this year. Grim data is emerging on the amount of capital going to Black founders and progress on funding to female founders has stalled since 2018. This inequity is excluding talent and ideas. Only by fixing it will we fuel our flywheel and generate even greater outcomes.

03 **Another huge opportunity lies ahead if Europe's startups can be front and centre of the fight against one of the world's biggest problems: climate change.** Investment into Europe's climate-focused start-ups has soared to over $11B cumulatively in the last five years. The European Commission's expansive Green Deal has been a key policymaker focus in 2020 and has the potential to be an important catalyst for continued investment in this area.

04 **To realise its potential as an engine of economic growth, European tech needs supportive regulation and government action.** Governments responded rapidly to support startups in the wake of COVID-19, injecting $11B in relief funds across Europe, though the impact of this investment is not yet clear. Positive policy initiatives are emerging, including on visas and employee stock options, as the EU's Startup Nation Standard builds upon national commitments. Yet more education and awareness raising is needed; only 20% of founders and investors believe the concerns of start-ups and scale-ups are being heard by European policymakers.

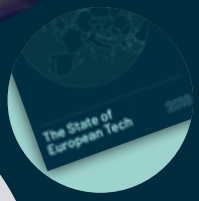
For a vision of European tech's future, we need look no further than Klarna and UiPath, our first VC-backed tech companies to reach valuations of $10B while still private. Their scaling journey has taken time: both were founded in 2005. But let's imagine two things. First, how much greater the challenges of founding a company in Sweden or Romania in 2005. Second, how many more $10B+ companies – and $100B+ companies! – Europe will build as it's flywheel spins faster and faster.

We hope that this report continues to provide a helpful, data driven look at Europe's tech ecosystem in a year of unforeseen volatility and uncertainty, and validates our optimism about where we can go from here.

Tom Wehmeier
Atomico Partner
and report Co-author

The State of European Tech

The study's impact over the years



"The European startup data Bible"

Sifted

"The European tech world is still developing its traditions (I'm not sure we've yet found our Burning Man, for example), but Atomico's annual State of European Tech Report has quickly become a can't-miss"

Nicolas Colin

"The benchmark for the industry"

FT

RECORD NUMBER OF U.S. FIRMS INVESTED IN EUROPE TECH THIS YEAR

The Information

Investeringar i europeiska teknikbolag slår rekord: ”Sverige är ett av nyckelländerna”

DI DIGITAL

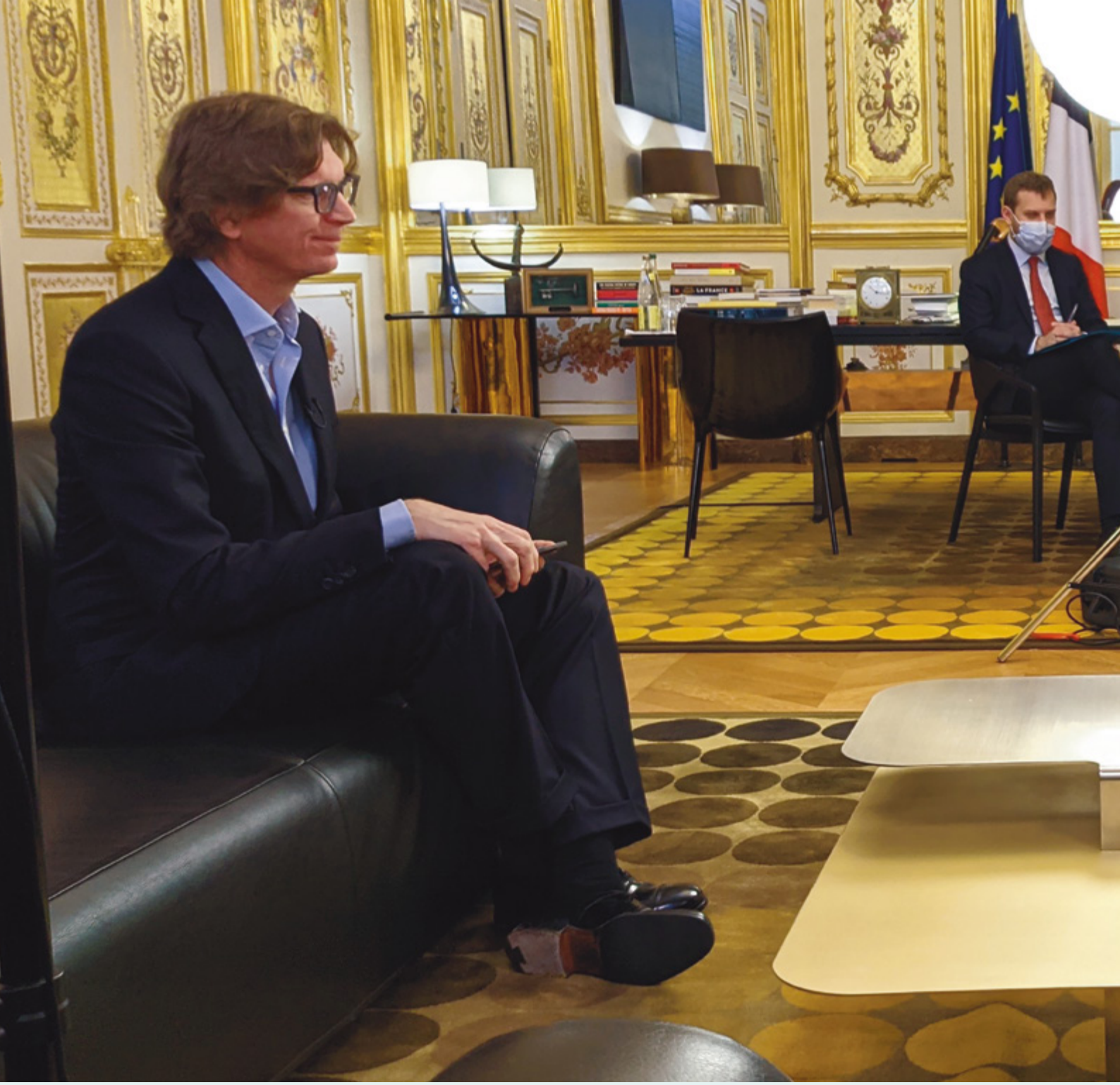
Behind the scenes at the State of European Tech 2020 report launch

Our 2020 Event

9000+ Launch event attendees

Media coverage mentions **450+**

Outlets covered: The Information, Fortune, Reuters, TechCrunch, CNBC, The Economist, Handelsblatt, Financial Times, Bloomberg, Le Figaro, El Mundo, Di Digital (Sweden), Helsingin Sanomat (Finland)



FRANCE'S MACRON LAYS OUT A VISION FOR EUROPEAN 'DIGITAL SOVEREIGNTY'

CNBC

L'enjeu pour l'Europe, ne pas rater la prochaine révolution numérique

Le Monde

Macron promotes European tech ecosystem in an interview with Zennström

TechCrunch

Emmanuel Macron
President of France

The United States has the GAFA (Google, Apple, Facebook and Amazon), China has the BATX (Baidu, Alibaba, Tencent and Xiaomi). And Europe? We have the GDPR. It's time to have our own technological sovereignty and not depend only on American or Chinese solutions!

A Word from Orrick

Over the past nine months we've navigated intersecting crises — a global pandemic, economic uncertainty, racial injustice and climate change – all in an increasingly polarized political environment globally.

It's been a time of unprecedented disruption, one that has upended every facet of life, work and innovating as we knew it. Companies have had to be more nimble than ever, at a moment that has ushered in "ten years' worth of digital transformation in two months," as Microsoft CEO Satya Nadella famously put it at the end of April.

Opportunity is often borne out of crisis and the 2020 State of European Tech Report exemplifies this. European Tech continued on its growth trajectory this year. As venture capital continued to pour into the region, the tech ecosystem has ballooned since 2000 to almost $1 trillion ($960B) in combined value – up five-fold from 2016. Remarkably, 2020 is on track for record investment of more than $40 billion – a 20% compound annual growth rate over the last five years, outpacing both North America and Asia. The unicorn pipeline continues to be robust, with 18 new unicorns in the last 12 months compared to 14 in the previous period.

That said, the report also indicates exits – both M&A and IPO – are likely to end the year at a 5-year low. It's likely that this is a pause driven by the perfect storm of 2020 – and that the combination of dry powder, a strong stable of unicorns and vehicles like the special purpose acquisition company that is currently driving the US market for exits will set up Europe for a strong rebound in exit activity next year.

In other words, as the world navigates a new normal that will be increasingly digital, the European tech market promises to be an engine for recovery. The Report points to three key factors the tech ecosystem must address to ensure that recovery is truly sustainable:

Focusing on Purpose

2020 has also sharpened the focus on corporate purpose. Tech leaders such as Apple, Microsoft, Netflix and many others have pledged billions to racial, social and environmental causes, while BlackRock announced they will no longer invest in companies that pose a high sustainability-related risk.

This trend is clearly making an impact in the European tech ecosystem. Purpose-driven companies — including in the energy tech, food tech and agtech space — have attracted record levels of investment this year. Investment in environmentally-focused technologies grew at five times the rate of traditional VC investments over the last five years. And purpose matters in attracting talent too — 81% of survey respondents indicate ethical impact plays a major role in their decision to work at a company.

Founders should take this into consideration both in business planning and telling the company's story. It has never been more clear that business will do well by doing good.

Creating an Equitable Playing Field

SOET has reported for the past several years on gender and ethnic inequity as a threat to the ecosystem. In 2020, the Black Lives Matter movement has called for heightened focus and accelerated action. New data from Extend Ventures, the first-ever quantitative report on diversity beyond gender in Europe points to how dire the need is.

From 2009 to 2019, all-white teams received nearly 76% of venture capital, while all Black founders received only about 0.24% of funding and Black women founders, 0.02%. In an environment of fewer rounds of funding, where founders of all backgrounds report greater difficulty attracting investment, it will take our collective commitment to make progress in this area and ensure diverse and female founders have equitable access to funding.

The promising news, as noted above, is that investors are driving more of their investment strategy around environmental, social and corporate governance principles, and there is clear stakeholder pressure to consider the diversity of leadership teams and boards. Last month, Orrick had the honor of working with an early mover, Paypal, on its investments in Black-led VC funds in the U.S.

We encourage the tech community to work together as allies in this effort.

Forging Government Partnerships

Public-private collaboration will continue to be critical for getting through these crises and sustaining the region's economic recovery.

The UK and European countries moved decisively to support the tech industry's recovery at the onset the pandemic, including through initiatives like the UK Future Fund scheme on which Orrick had the honor of advising HM Treasury. These stopgaps must evolve into long-term, sustainable policy that fuels growth, employment and innovative fixes to societal challenges. Founder and investor feedback clearly calls for a stronger dialogue between policymakers and the tech community to address areas such as cybersecurity, regulatory fragmentation, funding and immigration.

As we noted in the introduction to last year's report, "Tech is the economy." It feels more true today as society depends on innovation to address the pandemic, the new workplace, and the many systemic challenges. We're incredibly grateful to Atomico for again unearthing rich, data-backed insights that lay the groundwork for us to chart a path forward and measure our progress. We look forward to continued collaboration with the European tech community and helping to build a resilient ecosystem that not only thrives, but transforms the world for the better.

Indeed, that must be our collective purpose.

Chris Grew
Partner, Technology Companies Group, Orrick

01.3

A Word from Slush

2020 shaped up to be the ultimate test of our endurance as individuals and the resilience of the ecosystem in which we work. As we approach the end of the year, it's becoming clear that Europe has held up staggeringly well. In terms of capital invested, Europe is about to post its second highest year on record.

Companies like Hopin have carved record-breaking paths to unicorn valuations. As a result, we now have more than 100 billion-dollar private European tech companies. However, 2020 is not only a story of gigantic rounds – European investors have backed the seed stage of our ecosystem to an unprecedented extent. These are incredible achievements, and speak of an ecosystem in which healthy foundations run deep.

Amid all this, we at Slush continue to believe that entrepreneurship is one of the best and fastest ways to change the world for the better. To that end, it's been encouraging to see that led by Infarm, Ynsect and Northvolt, investments into European purpose-driven companies have continued to grow. Like so often in history, it seems that a global crisis brings out our most noble ambitions. In September, Slush's virtual stage was host to Daniel Ek's announcement that he'll commit €1B of his personal wealth to funding European moonshots. It directly addresses the funding gap that deeptech companies continue to struggle with.

Amid the explosive rise of the European ecosystem over the past decade, it's been easy to forgo engaging with the inefficiencies and inequities that still hold our ecosystem back.

In an almost exhausting repetition of conclusions we've drawn before, a lack of diversity and inclusion remains the most pressing of these. While data is yet again insufficient, what we have points to two things: European tech continues to involve a narrow subset of the population, and those that differ from its narrow norm are held back and marginalized. Going forward, we will have to move from talk to action. Anything less would be unacceptable.

With record numbers of capital available and an active dialogue around important policy among key European policymakers, we have the foundations in place to make 2021 an excellent year for European tech. As such, we at Slush are more inspired than ever by our mission – to help and create founders that change the world. This truly is the best time to be a founder; to courageously embrace the uncertainty, to look for patterns in what seems like chaos, and to fearlessly build technologies that will make the "new normal" a better normal.

Miika Huttunen
CEO, Slush

01.4

A Word from Silicon Valley Bank

In a year that none of us will soon forget, European innovation stands out as a shining light. Coming off a record 2019, we were confident of strong 2020 growth for both the technology and healthcare sectors, until the pandemic took hold. While uncertainty still exists in global and European markets, we can report that the pace of innovation and investment in tech and healthcare remains robust and well placed to accelerate over time.

Despite the headwinds that still persist with respect to the pandemic, innovation in many areas is thriving and accelerating parts of the market faster than we've observed pre-pandemic. Digital adoption and movement online, remote collaboration and communication tools, technology to fight and cure COVID-19 along with enhanced healthcare delivery are a few such areas.

The report's findings show that 2020 is on track to be the highest year on record for investment in the European innovation economy. We've seen 18 newly created unicorns thus far, with a stable of fast growth companies right behind them. That brings the aggregate enterprise value of Europe's 200 total unicorns to an unprecedented level of $1.09 trillion based on findings from Atomico.

Here's what Silicon Valley Bank ('SVB') is seeing:

01 **While the UK leads in activity, tech hubs are growing all over Europe at a rapid rate.** In this environment, skilled talent is staying put and creating increased momentum in more newly energised tech clusters. We think this will lead to an acceleration of innovation across the continent and potentially a more collaborative ecosystem in the years to come. At SVB, we had already expanded to high-growth European hubs with SVB's presence in Germany, Denmark and Israel and SVB Financial Group UK Ltd's presence in Ireland supporting companies through our extensive global network.

02 **As innovation takes the centre stage globally, we find increased domestic and international capital supporting European entrepreneurs and their ideas.** We've gone from building great domestic companies to creating and scaling global category leaders that need increasingly sophisticated financing options. Access to seed and early stage venture capital continued to increase but a gap remains for capital at the growth stage and there is more work to do to elevate our public markets. Support through tools such as venture debt, working capital and acquisition financing are necessary to enable companies doing well domestically to grow and compete globally and complement the maturation of the equity markets.

03 **Capital alone does not guarantee competitive success. It relies on building an ecosystem that brings a variety of voices and ideas to the table.** The European tech community is making some progress to include entrepreneurs and investors with diverse backgrounds and experiences, but most of us agree, we must do more to put words into action if we are to make significant headway on diversity, equity and inclusion within our sector.

04 **Looking ahead to 2021, we are optimistic that the fundamentals driving our growing innovation ecosystem will continue, and we will be here to do our part.** In this time of uncertainty sustaining momentum is key, and it requires policies that reduce friction around access to talent and movement of commerce. Doing business virtually, including deal-making and fundraising, may improve velocity – but not in a vacuum. Policymakers must recognise that promoting a healthy innovation ecosystem requires a seamless bridge for talent across European countries and policies that level the playing field. We are encouraged because innovators are exceptionally skilled at finding solutions and adapting when the times call for it and we firmly believe the best is yet to come for the European innovation economy.

Erin Platts
Head of EMEA and
President of the UK Branch,
Silicon Valley Bank

02 Investments

How did investment in European tech hold up in a year hit by Covid-19?

While many founders found it more challenging to get funding, 2020 is on track to be a record year, with potential to surpass $41B invested, driven by more $100M+ deals. Purpose continues to be a differentiator for European tech, with climate action a focus of the $6B invested into purpose-driven companies this year.

02.1
Investment by Stage

- Capital invested in Europe will hit at least $35B in 2020 with the potential to exceed $41B when adjusted for reporting lag. The typical delays in capturing data on funding rounds mean that the final sums will only become clear in due course. For reference, last year's report projected that total capital invested in 2019 when adjusted for the reporting lag would hit $36B once all rounds had been counted up; 12 months later that projected total has been exceeded by more than $2B for 2019. The strength of investment since September – an all-time record month for Europe – until publication in early December 2020 even leaves the door open for 2020 to set a new record once again. In the face of a global pandemic and a highly volatile, uncertain macroeconomic climate, the European tech ecosystem has been resilient. A decade-plus unbroken run of consecutive years of year-on-year growth in capital invested in European tech could well continue.

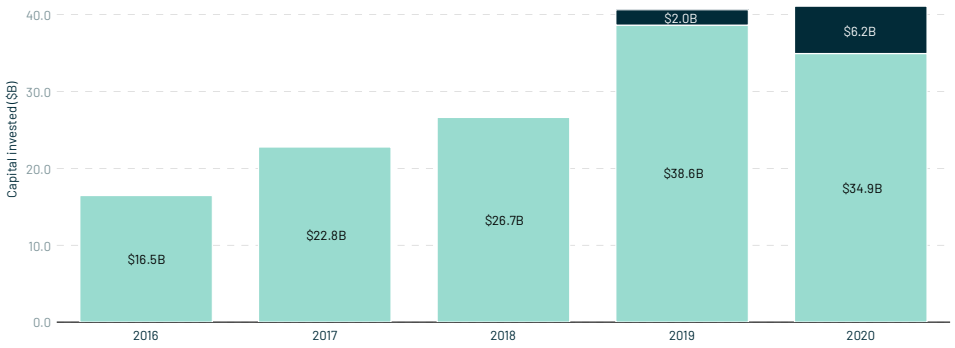
Capital invested ($B) adjusted for reporting lag effect

LEGEND

- Actual amount ($B)
- Adjusted for reporting lag ($B)

NOTE:

The reporting lag is the difference between the date of a round's disclosure and the reported date of a round's occurrence, resulting in a material % of rounds being added after a long delay. This is estimated at 95% for 2019 and 85% for 2020 annualised.



SOURCE: dealroom.co

- If Europe has had a resilient year, the US has witnessed a return to growth and to record levels of investment. Total capital invested in the North America, at $141B in 2020, is approaching nearly 5x the level of investment in Europe. Asia, meanwhile, has seen capital investment drop for the second year in a row. At $74B, Asia is some way behind the $117B invested in 2018, mostly due to a continued decline of investment levels into Chinese private tech companies. Europe is, of course, not the only up-and-coming region in the global tech landscape. Tech is having a remarkable moment all over the world, including in Latin America and Africa, helping to drive record levels of investment in the rest of the world.

CAPITAL INVESTED

$41B

Capital invested in Europe in 2020 projected

SOURCE: dealroom.co

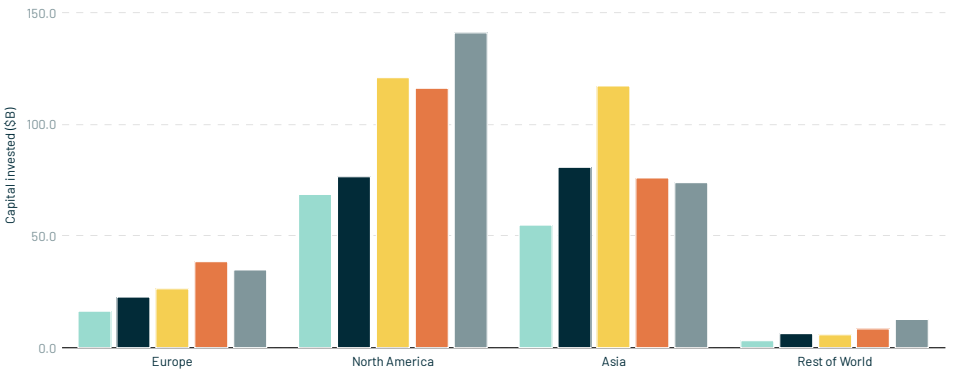
Capital invested ($B) in Europe, North America, Asia and Rest of World by year

LEGEND

- 2016
- 2017
- 2018
- 2019
- 2020

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 data is annualised based on data to September 2020.



SOURCE: dealroom.co

European tech has come a long way in the past 10 years but is still underweight when looking at its relative share of global gross domestic product ('GDP'). Although Europe accounts for around one-quarter of global GDP, its share of global tech venture capital investment was still only 13%, despite the growth observed in recent years. More than anything, this illustrates the might of the US in terms of global venture capital investment. US tech still attracts more than half of all venture capital investment globally, despite accounting for 26% of global GDP and being home to just 5% of the world's population.

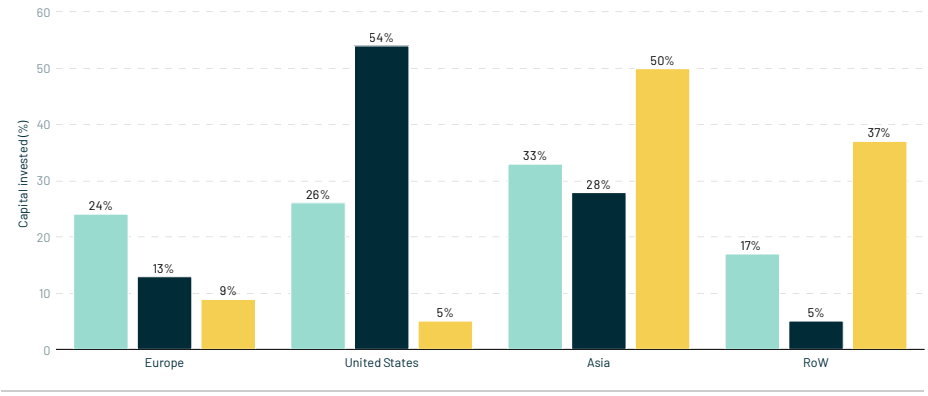
Capital invested by relative weight of global GDP and population

LEGEND

- Global GDP
- Capital invested (2020)
- Population

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is annualised based on data to September 2020.



SOURCE: dealroom.co

State of European Tech 2020 report launch

It is important to understand, however, that Europe is made up of many different countries that are at different stages of local tech ecosystem development. This is evident when looking at levels of cumulative per capita investment by country across the region. There is huge upside potential if some countries catch up with the per capita investment levels of their peers.

CAPITAL INVESTED

$19

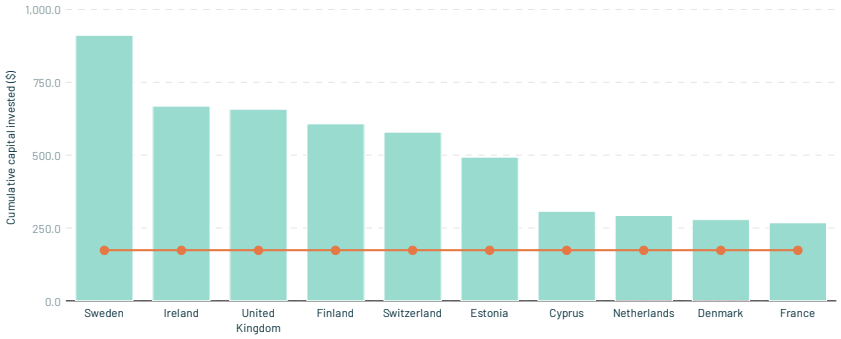
per capita in Poland versus $172 on average in Europe

Cumulative capital invested ($) per capita by country, 2016 to 2020

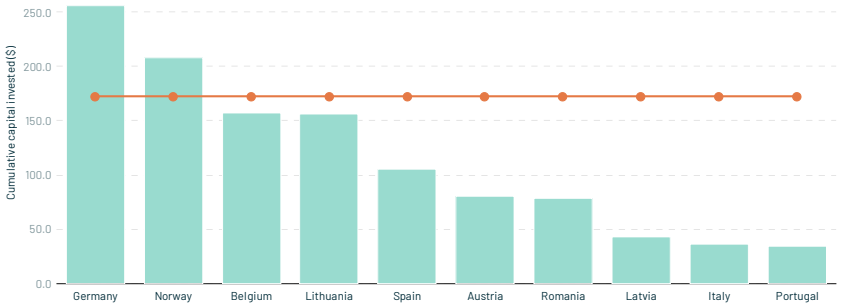
LEGEND

- Capital invested ($) per capita
- European average

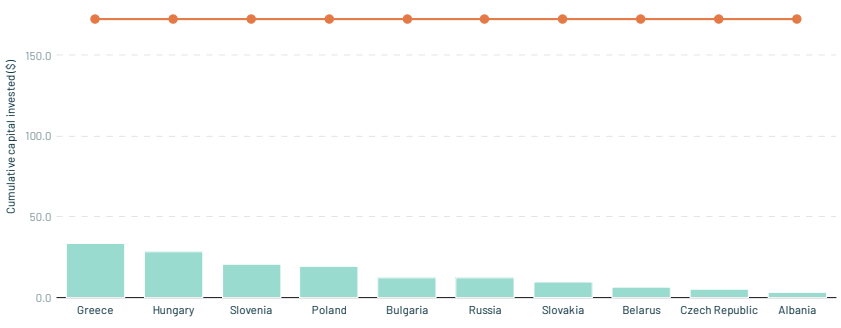
Top 10



Top 11-20



Top 21-30



SOURCE: dealroom.co

NOTE:

Chart includes only countries with a population greater than one million. Population data is from the World Bank. 2020 is based on data up to September 2020.

It is interesting to look at how invested levels have trended by grouping countries into quartiles based on most recent levels of per capita investment. Most obviously, this lens provides a useful view to see how stark the difference is between Europe's leading (top quartile) countries and those that are lagging (bottom quartile). Put simply, there are many countries where tech investment has not gotten started yet. Importantly, however, the graphs demonstrate how quickly things can change. Investment levels in the third quartile (i.e. from 50% to 75% percentile) have already exceeded the per capita investment levels of the top quartile countries just five years ago. The trajectories across the quartiles, except for the bottom quartile, provide a useful indicator of how the European investment landscape might evolve if – and it's still an if – these countries continue to mature in line with other countries.

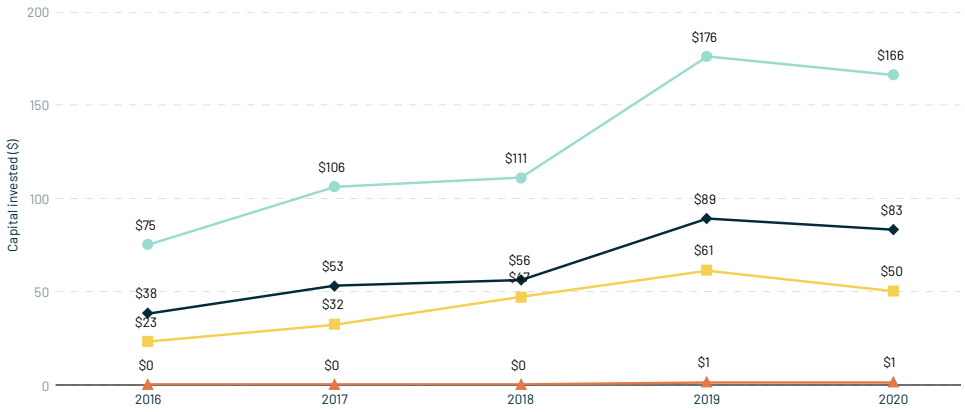
Capital invested ($) per capita by quartile, based on rank of countries by per capita capital invested in 2020

LEGEND

- Top quartile
- Third quartile
- Second quartile
- Bottom quartile

NOTE:

All European countries with a population greater than one million were ranked into quartiles based on the level of capital invested per capita in 2020. The average (mean) capital invested per capita has been calculated for each quartile of countries.



SOURCE: dealroom.co

The gap between Europe's leading and lagging countries presents a huge opportunity for the region. Though it is really just a thought exercise, it is interesting to model the levels that total capital investment could reach if per capita investment levels at a European-level were to align to levels currently seen in some of the continent's leading countries. It is a simple projection that has its limitations but it is useful as a way to try to look at where Europe might be heading as the ecosystem continues to mature. Hitting $100B in investment may seem a long way from today's reality, but the path there certainly exists. The next step, however, is to get to $50B.

Projected potential capital invested ($B) in Europe per year at various Europe-wide per capita investment levels

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.

SOURCE: dealroom.co

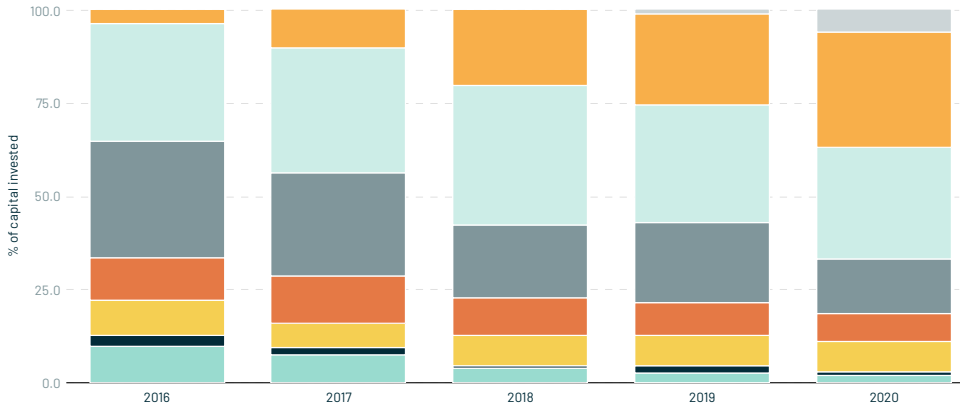
Another reason to feel confident in the upside potential of the European ecosystem is to understand how the growth profile of companies is evolving in terms of how quickly they raise capital and at what scale. It is also important to understand that though companies are scaling faster and more aggressively, it still takes time for newer cohorts of companies to make a meaningful dent on the trend in terms of total capital raised. Although Europe's tech ecosystem has developed an incredible amount in the past five years, companies founded during that period contribute just over a third of total capital raised (37%) in Europe this year. This is due to the fact that older cohorts of companies are still raising large sums of capital. For example, companies founded 8 years ago or more still contributed a third of total capital raised in 2020.

Share of capital invested per year (%) by founding year cohort of companies raising capital in year

LEGEND

- 2000 & earlier
- 2001-2003
- 2004-2006
- 2007-2009
- 2010-2012
- 2013-2015
- 2016-2018
- 2019+

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.



SOURCE: dealroom.co

CAPITAL RAISED IN 2020

37%

of total capital raised by companies founded in the past 5 years

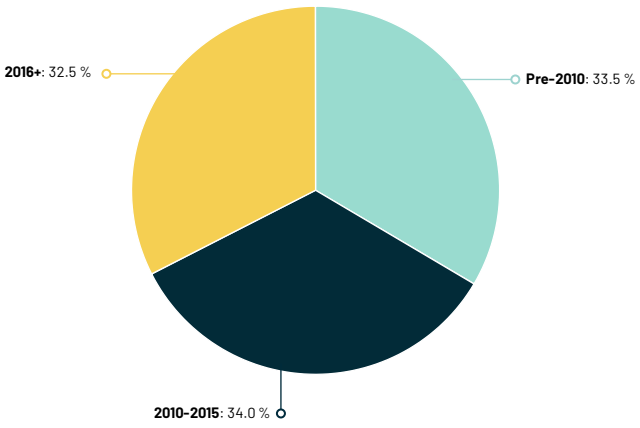
SOURCE: dealroom.co

The more that European tech is driven by its newer generation of companies, the bigger the impact on the overall level of investment in the ecosystem given the increased speed and scale in capital raising and value accretion. Today, a third of funded European tech startups belong to this newer cohort and their effect on European tech is really only just beginning to be felt.

Share of total funded European tech companies by founding year

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.



SOURCE: dealroom.co

The maturing of the ecosystem is reflected in the increased scale in terms of capital raised by more recent cohorts of European tech companies, as well as the accelerated pace that this capital accumulates. European tech companies founded in 2010 had raised a total of $2.8B by the end of their fourth year. By comparison, companies founded in 2015 had raised $14.4B by the end of their fourth full year. Companies founded even more recently are showing signs that they will scale faster and more aggressively. Hopin is a great example of the speed and scale of capital raises now witnessed in Europe having reached a $2.1 billion valuation and raised more than $170 million in just 17 months from founding in the summer of 2019.

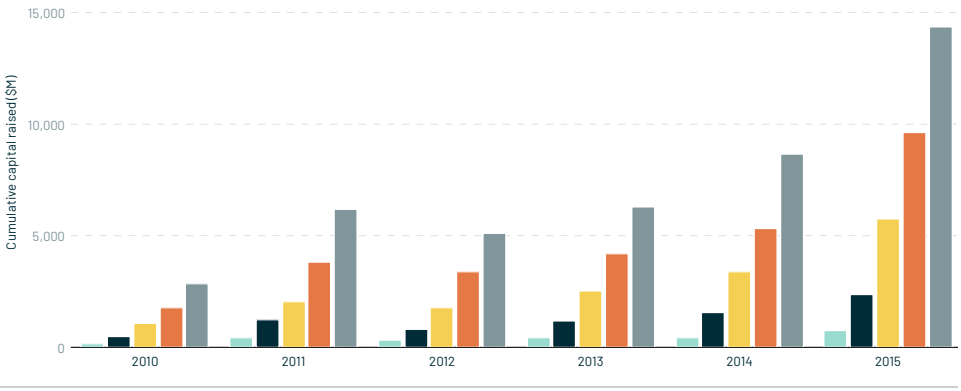
Cumulative capital raised ($M) by companies per year post-launch by founding year cohort

LEGEND

- Y0
- Y1
- Y2
- Y3
- Y4

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.



SOURCE: dealroom.co

The level of investment activity at the earliest stages is an important leading indicator of the direction of travel of an ecosystem. The companies raising a few million dollars of funding today are the companies raising hundreds of millions of dollars in a few years' time. By extension, the largest rounds tend to be more of a lagging indicator of an ecosystem's stage of development due to the typical extended timeline between founding and raising those rounds. There are, of course, exceptional companies that raise large $100M rounds very early in their lifecycle. Hopin is one recent example; it has raised a huge $125M Series B within just months of launch. What is notable in this chart is that Europe's market share decreases gradually across every round size bracket. A simple way to interpret this is to state that larger brackets are an indicator of Europe's relative position on the global stage a few years ago, while smaller round size brackets point to where Europe is heading. Europe is succeeding in building a very healthy early-stage ecosystem in tech and, remarkably, Europe accounts for 40% of all capital invested globally in rounds of less than $5M.

Share of capital (%) invested by round size by region, 2020

LEGEND

- Europe
- North America
- Asia
- Rest of World

NOTE:

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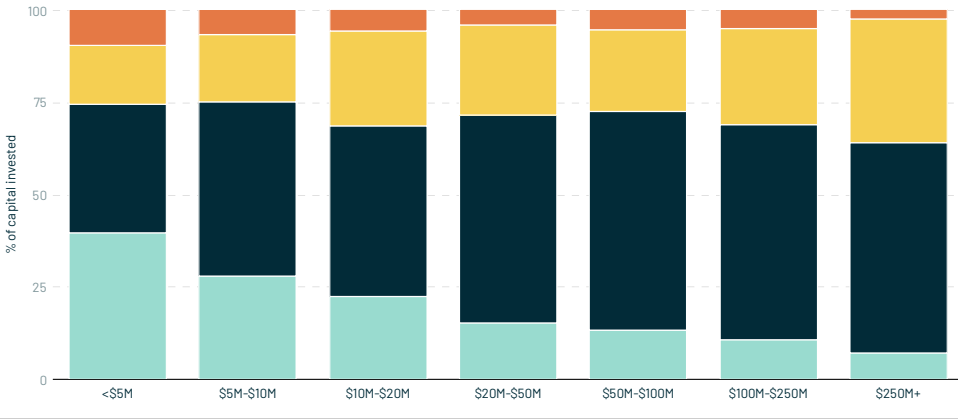


SOURCE: dealroom.co

ROUNDS < $5M

40%

of all capital invested globally in rounds of less than $5M is investing in Europe

SOURCE: dealroom.co

- This implied improvement in Europe's market share in more recent startup "cohorts" is perhaps one reason why there is a widely shared sentiment within the European tech community that Europe can make up ground with the US and China over the next decade. This positive outlook is strongest at the top of the investment stack with 70% of LPs investing in venture capital agreeing that Europe will gain ground. This is also shared by VCs (65%) and founders (48%), though the latter group are more split in their opinion.

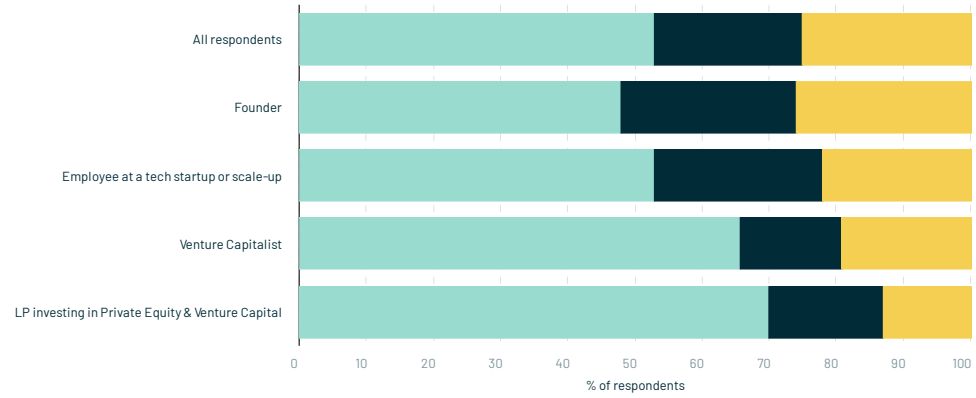
European tech is likely to gain ground relative to the United States and China in the next decade

LEGEND

- Agree
- Neither
- Disagree

NOTE:

Numbers may not add up to 100 due to rounding.



SOURCE: The State of European Tech Survey

SEPTEMBER 2020

$5B

capital invested in September 2020, the highest ever month on record

SOURCE: dealroom.co

- To understand 2020 from the perspective of investment into European tech, it is helpful to look at the year on a month-by-month basis and to then compare to prior years. 2020 started out of the gates incredibly fast. Capital invested in January represented the highest ever "January" on record, contributing to a pretty robust first quarter. The pandemic really took effect in March as Europe went into lockdown and, while a causal link is uncertain, it's clear that investment levels started to slow from late-March and persisted at reduced levels versus prior years through the second quarter. By the end of the summer, however, monthly investment levels started to pick up again. July 2020 was an all-time high "July", while September recorded the highest ever month of investment into European tech with more than $5B invested. October was also a strong month and, as of publication, November is also tracking towards all-time high monthly investment levels.

Cumulative month-by-month capital invested ($M), 2019 versus 2020

LEGEND

- 2019
- 2020

NOTE:

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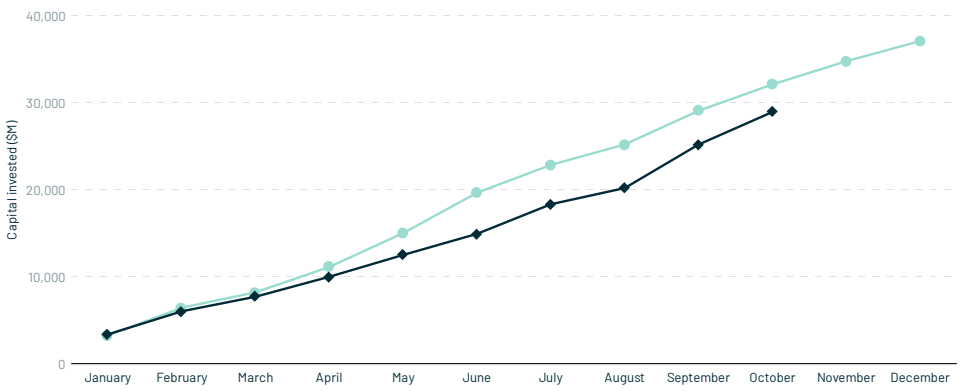


SOURCE: dealroom.co

> We see a clear flight to quality; a concentration of capital matched with the dearth of growth more broadly. There is significant liquid capital in private markets and essentially zero growth outside of technology. This capital is seeking signal out of noise. Start-ups across health, education, remote work, online events, ecommerce are seeing staggering growth and are this signal. Capital is competing at a fierce level to latch onto their coattails.

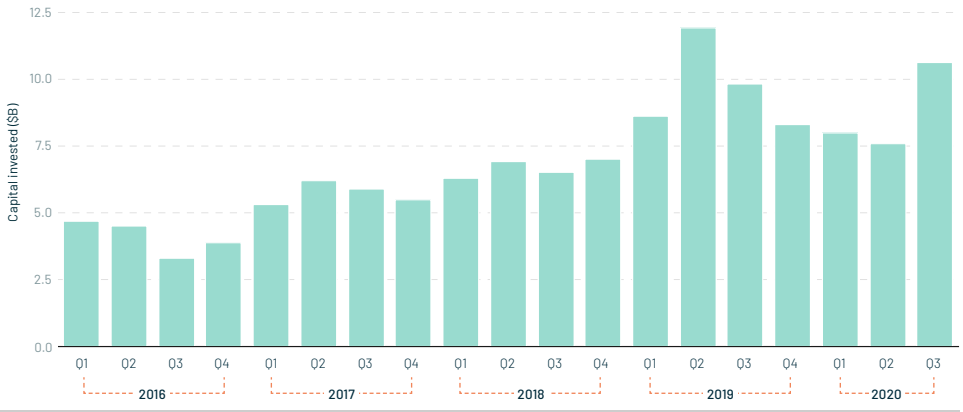
Reshma Sohoni
Seedcamp
Co-Founder and
Managing Partner

- Looking at capital invested per quarter over an extended time horizon provides a longer-term view into the pattern of investment in Europe. The second quarter of 2020 was the softest quarter since Q3 2018 at $6.5B. The bounce back after the summer months is evident here too. Capital invested in the third quarter of 2020 equates to a record "Q3" for Europe, the second largest quarter of all time, and only the second quarter ever to get into double-digit billions. European tech companies are now raising in one quarter what used to be raised in 12 months just a few years ago.

Capital invested ($B) per quarter

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.



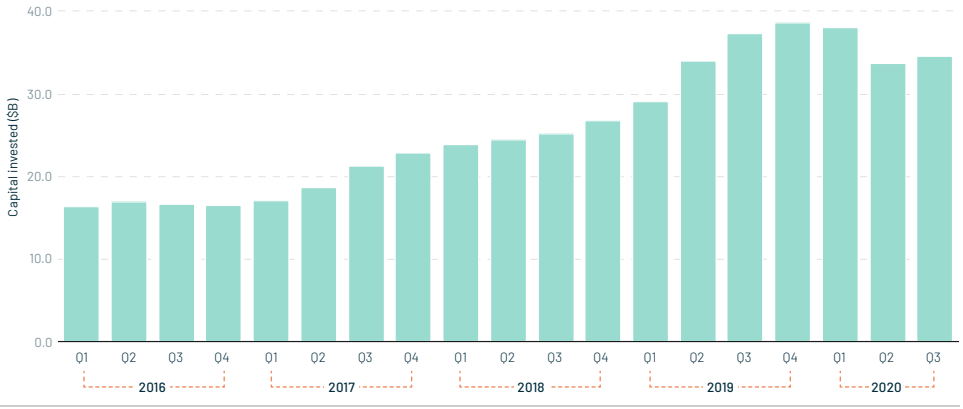
SOURCE: dealroom.co

- It is also helpful to smooth out the volatility between quarters by looking at how the trailing 12-month run rate of investment develops from quarter to quarter. European tech enjoyed a steady upward trajectory through 2019 and into early 2020 when the pandemic interrupted that growth curve. The slowdown has been shortlived and Europe is now back on a growth path.

Trailing 12-month capital invested ($B) per quarter

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.



SOURCE: dealroom.co

In the context of the current scale of capital invested into Europe, a small number of very large rounds can still make a material dent on the overall level of investment. The top 10 largest rounds alone raised $4.1B, equivalent to 16% of capital invested in Europe in the first nine months of 2020. The top three rounds raised $1.8B, or 7% of capital invested over this period. While all of the top 10 rounds of 2020 to date exceeded $250M per round, none of this year's top three largest rounds would have made the top three from 2019.

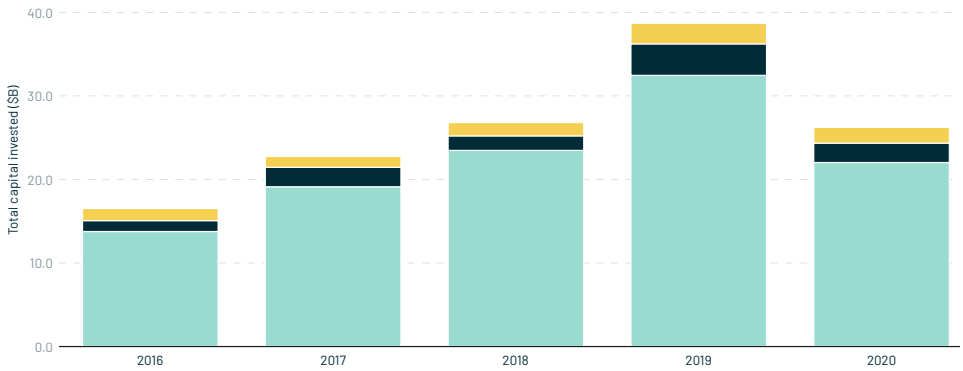
Total capital invested ($B) per year, divided by top 3, 10, and all other deals

LEGEND

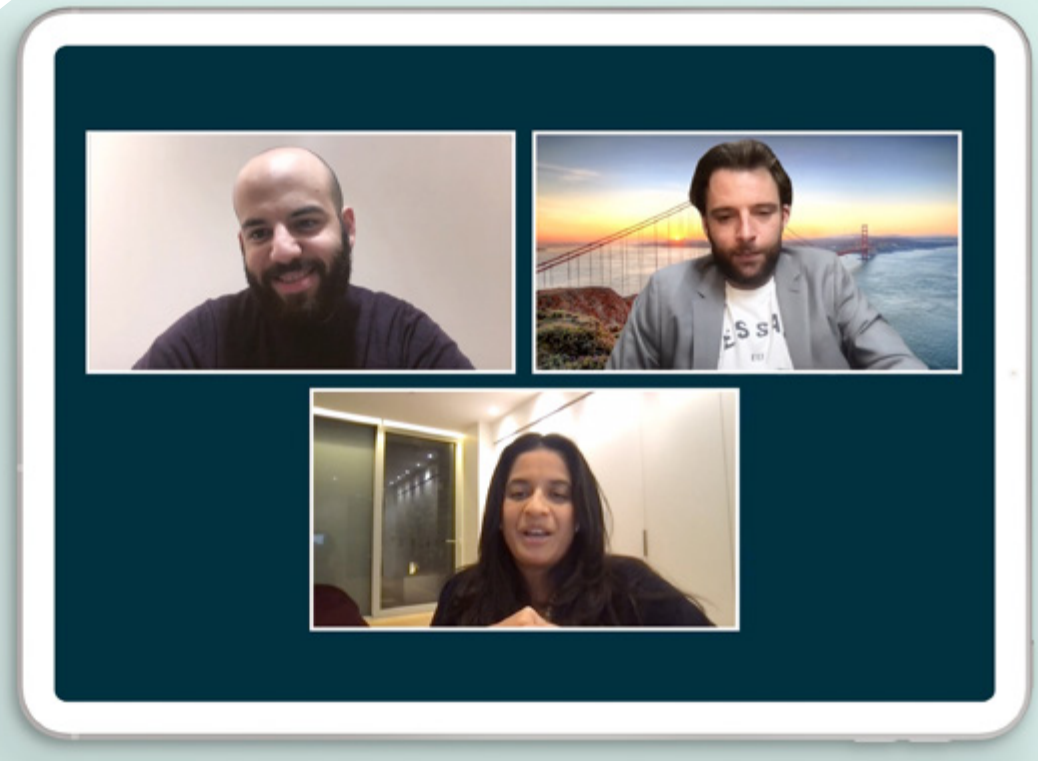
- All other deals
- Top 10 deals
- Top 3 deals

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, grants. Please also note the data excludes Israel. 2020 based on data up to September 2020. Top 10 deals show the incremental value of the top 4-10 deals.



SOURCE: dealroom.co



State of European Tech 2020 report launch

It is also helpful to see what happened at different stages by looking through the lens of investment by round size. The greatest overall impact is evident in the smallest rounds of between $0-2M, though it is very important to note that these rounds experience the greatest adjustment due to reporting lag. The total number of rounds will be adjusted materially higher in the following months once all the data is collated. To put this in context, more than 2,000 additional rounds have been captured for 2019 since we published last year's report. Seed investment, as represented by rounds of between $2-5M, has been remarkably strong and, once all is finalised, could well exceed 2019 levels. An important slowdown is evident in rounds of $20-50M. At this stage, companies typically need to show growth and, with the pandemic distorting typical user and buyer behaviours, that likely created more challenging conditions to raise in this bracket. If the growth is not obvious, many investors will show caution. 2020 has also seen fewer $250M+ rounds versus 2019, though that has been offset by a record number of $100-250M rounds that have raised records amount of capital.

Capital invested ($B) and number of deals by round size and by year

LEGEND

- $0M-$2M
- $2M-$5M
- $5M-$10M
- $10M-$20M
- $20M-$50M
- $50M-$100M
- $100M-$250M
- $250M+

NOTE:

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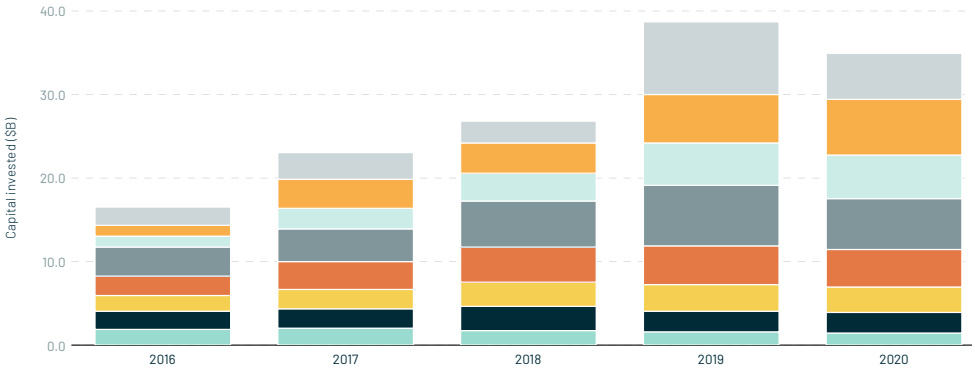
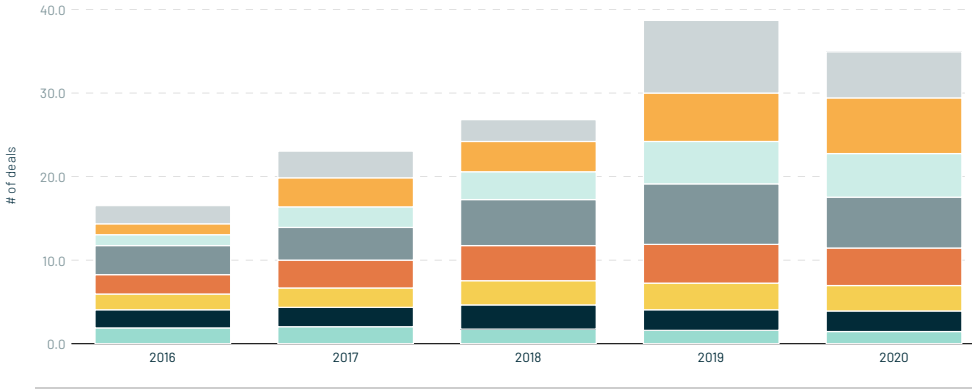
Capital invested ($B)



Number of deals



SOURCE: dealroom.co

A small number of very large rounds have an outsized impact on overall investment levels in Europe and have the potential to significantly move the needle on total investment. The number of rounds that are greater than $100M in size account for less than 1% of total deals, but represent more than 30% of total capital invested in the region. The largest rounds ($20M+) only represent 8% but account for close to 70% of all capital invested in the region.

SHARE OF CAPITAL INVESTED

70%

of all capital invested accounted for by $20M+ rounds

Share of capital invested and number of deals by round size and by year

LEGEND

- $0M-$2M
- $2M-$5M
- $5M-$10M
- $10M-$20M
- $20M-$50M
- $50M-$100M
- $100M+

NOTE:

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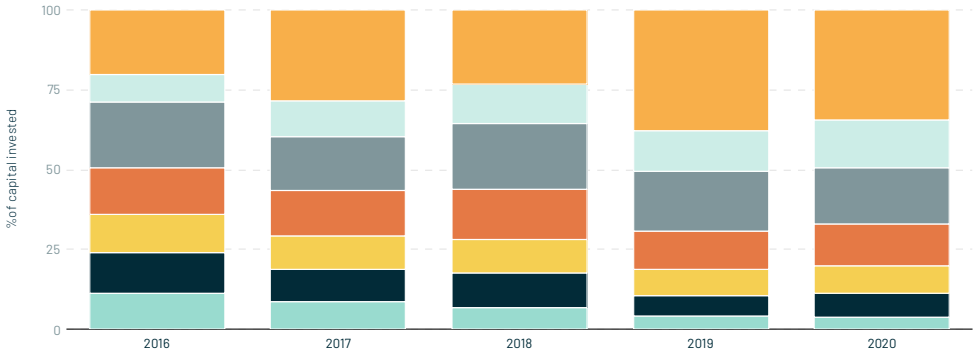
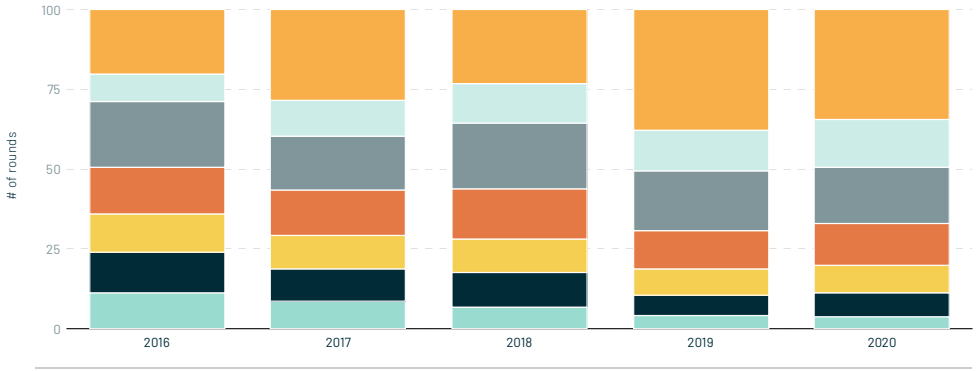
Capital invested



Number of rounds



SOURCE: dealroom.co

This chart serves to underline this outsized impact that a small number of rounds have in driving the overall investment trend. The top 10% of rounds by size account for greater than 75% of all capital invested in the region.

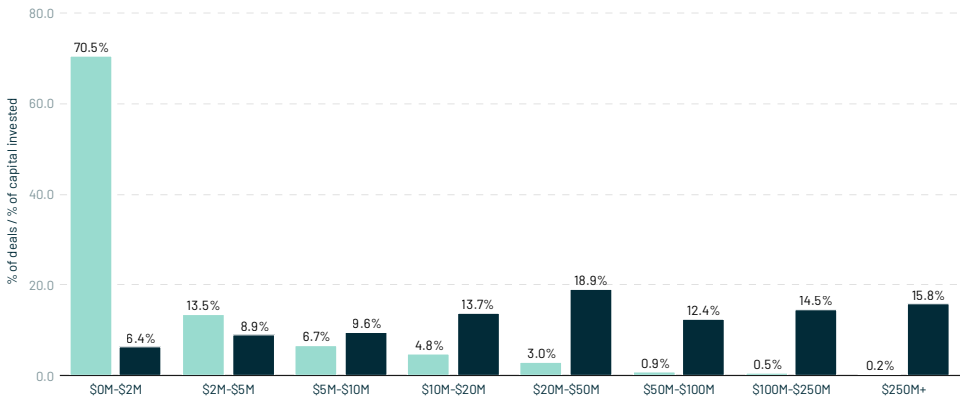
Share of deals and share of capital invested, 2016-2020

LEGEND

- % of deals
- % of capital invested

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is based on data up to 30 September 2020.



SOURCE: dealroom.co

> It's the most exciting time yet for European companies at the growth stage. There's more talent and capital in the ecosystem than ever before, with more companies across Europe reaching growth stage and then achieving increasingly large market caps. A good recent example is Poland's Allegro. Europe really is now and the fact Europe is no longer a "secret" is a great positive for entrepreneurs. Investors will be spending more time investing in their own capabilities to add value beyond capital.

Carolina Brochado
EQT
Partner

HARDER TO RAISE VENTURE CAPITAL

55%

of founders stated it was harder to raise venture capital funding in 2020

SOURCE: The State of European Tech Survey

The survey has consistently asked founders to share their perspective on the fundraising climate in Europe. This year marks the first year that more founders stated that it was harder to raise venture capital funding. In the 2019 survey, just 26% of founders felt the landscape had become more challenging. This year, that number has jumped to 55% of founders.

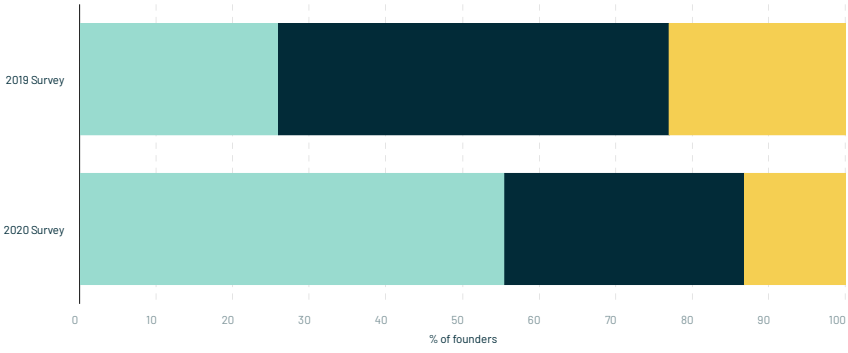
Is it easier or harder to raise venture capital in Europe than it was 12 months ago?

LEGEND

- Harder
- Unchanged
- Easier

NOTE:

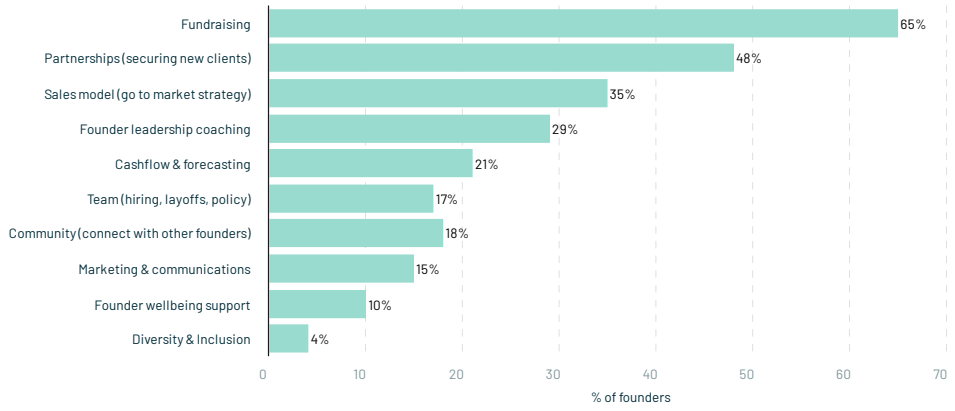
Founders respondents only. Numbers may not add up to 100 due to rounding.



SOURCE: The State of European Tech Survey

As a consequence, it is not surprising that founders, when asked, indicated that the most important support their existing investors can provide is with follow-on fundraising, as well as with progressing the commercial development of their companies.

In which areas do you think support from investors is most important?



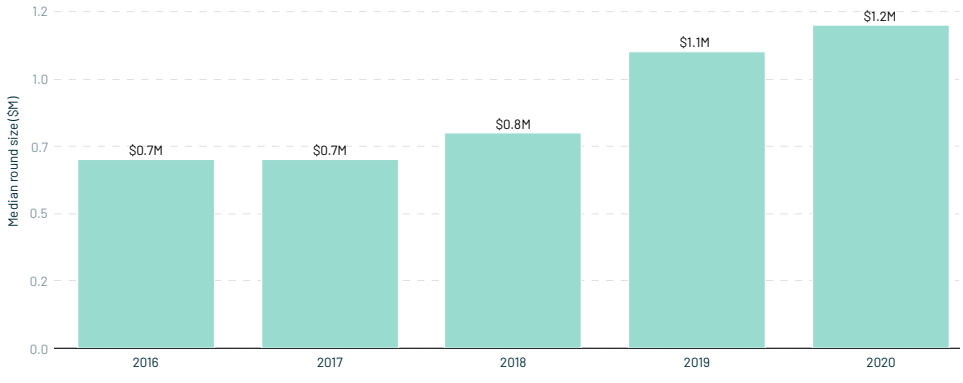
NOTE:

Founders respondents only. Numbers do not add to 100 as respondents could select up to three options.

SOURCE: The State of European Tech Survey

An important driver of increased investment into Europe is not just an overall growth in the number of rounds over time, but also material increases in the sizes of rounds at different stages. Seed rounds, for example, have increased from a median of $0.7M in 2016 to $1.2M in 2020. This is worthy of an analysis in its own right to unpack what is happening but reflects, amongst other things, the fact that leading Seed funds have raised larger and larger amounts, Series A funds are moving down the stack, as well as the arrival of leading US VCs that are building a foothold in Europe by participating at Seed. More than anything, however, it is also a reflection of founders building the firepower to compete on the global stage.

Median Seed round size ($M) by year



NOTE:

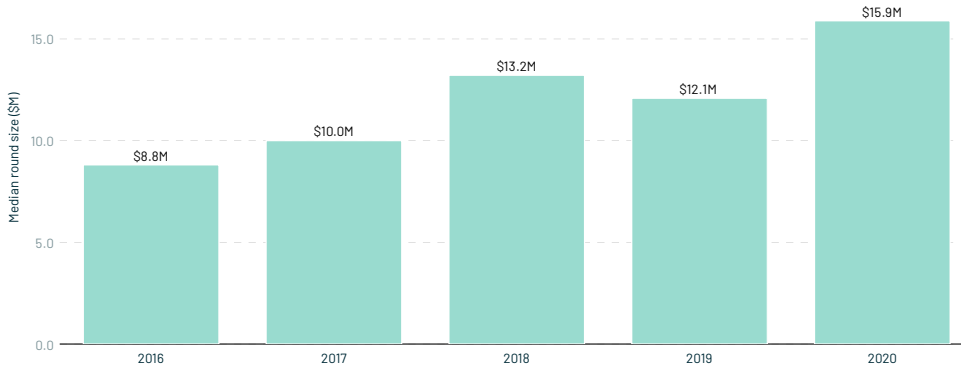
All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is based on data up to September 2020.

SOURCE: dealroom.co

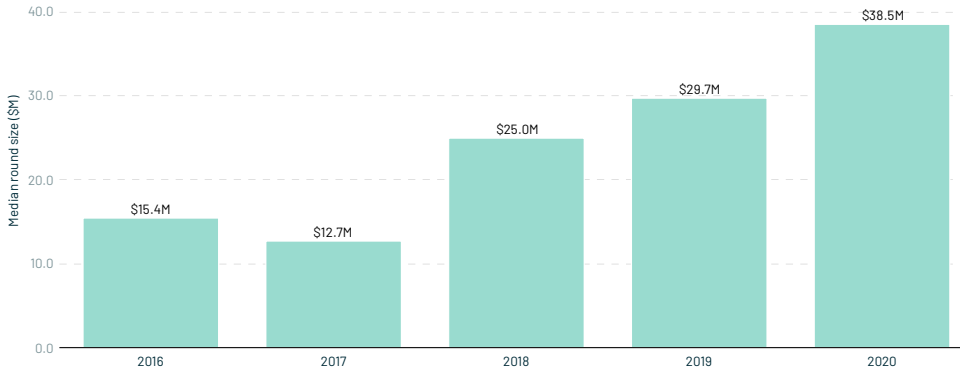
The later stages (Series B+) also saw increased median round sizes in 2020 versus 2019, with a 30% uplift for median Series B and Series C rounds and almost double for Series D.

Median round size ($M) by round stage and by year

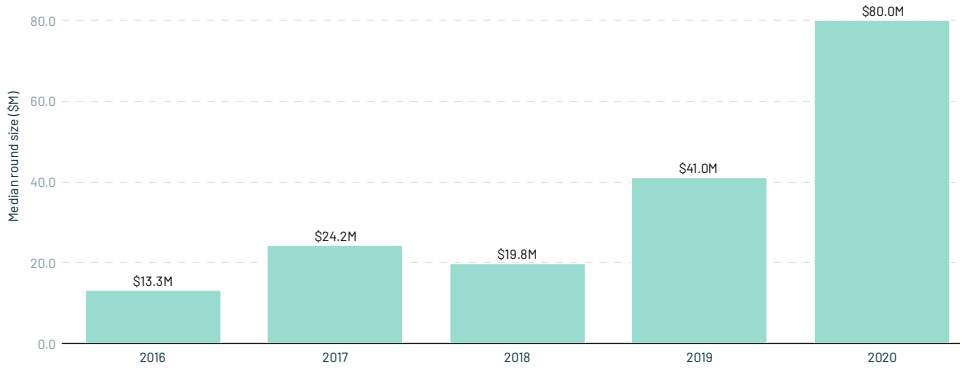
Series B



Series C



Series D



SOURCE: dealroom.co

NOTE:

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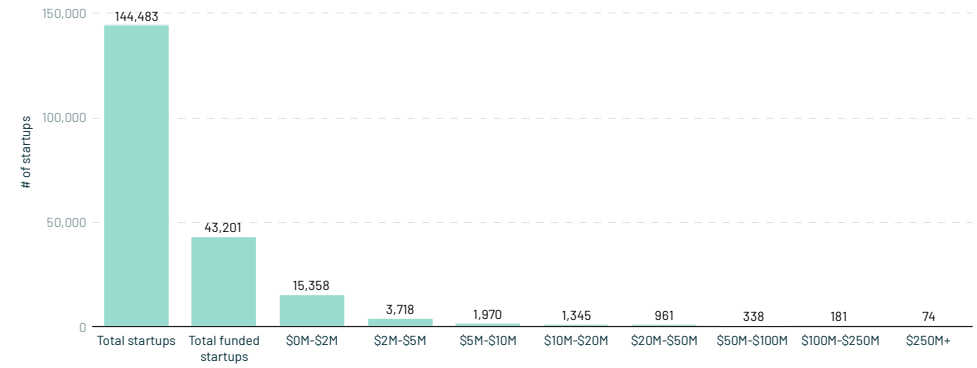
02.2

Investments by Geography & Industry

Overall investment trends across Europe are clearly driven by the underlying degree of startup activity in the region. There are more than 140,000 startups in Europe, of which over 43,000 have raised at least one recorded round of funding. The universe of companies at each level of funding narrows significantly. While there are around 15,000 European startups that have raised between $0-2M, there are just 74 that have raised more than $250M.

Distribution of European start-ups by total amount of funding raised



SOURCE: dealroom.co

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.

State of European Tech 2020 report launch

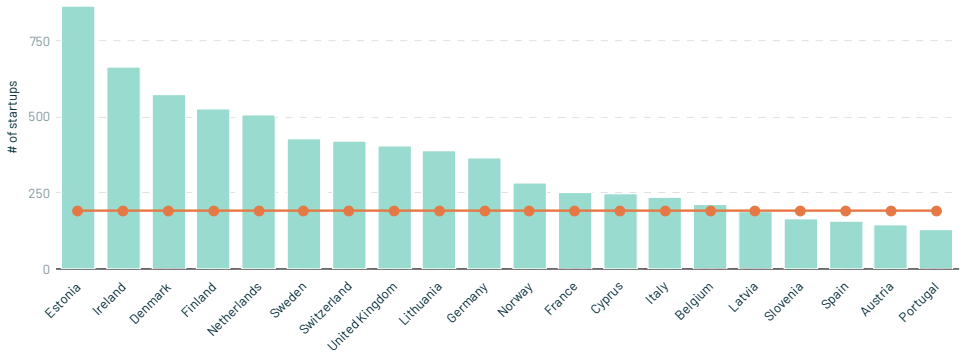
Start-up activity at the country level varies significantly in terms of density across Europe. On a population-adjusted basis, Estonia is the clear European capital of start-ups; adjusted for its population of just 1.3M, Estonia has 4.6x as many start-ups per capita as the European average. Estonia's efforts to build a start-up-friendly environment have been well documented and they appear to be delivering; Pipedrive's recent investment from Vista Equity Partners at a $1.5B valuation means that Estonia has now played a major role in the building of five European $1B+ companies.

Number of start-ups per capita by country

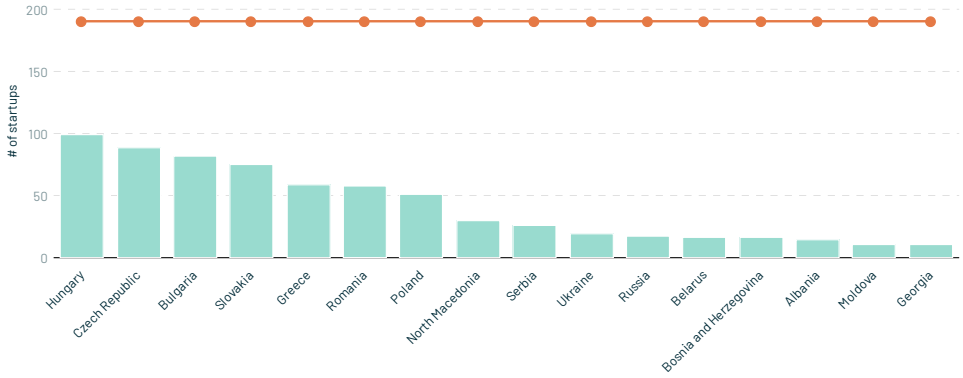
LEGEND

- Start-ups per 1M population
- European average

Top 20



Top 20+



NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. Includes countries with population over 1M.

SOURCE: dealroom.co

> Estonia is a country that has never had much wealth, a huge internal market or any mineral resources, but we have a lot of entrepreneurial people. We are the pathfinders in the ICT and startup world today, searching for new solutions to get things done cheaper and faster. And the government supports it. In 2016, startup founders foresaw the growth of the startup sector and the additional need for talented people in the ecosystem. As a potential solution, they suggested a startup visa program, which was implemented already 11 months after the initial idea by entrepreneurs and the government working together. Today, with the program having been active for 3.5 years, more than 2,500 start-up founders and employees from outside the EU have gained the right to relocate to Estonia to be part of our start-up ecosystem.

Eve Peeterson
Startup
Estonia Head

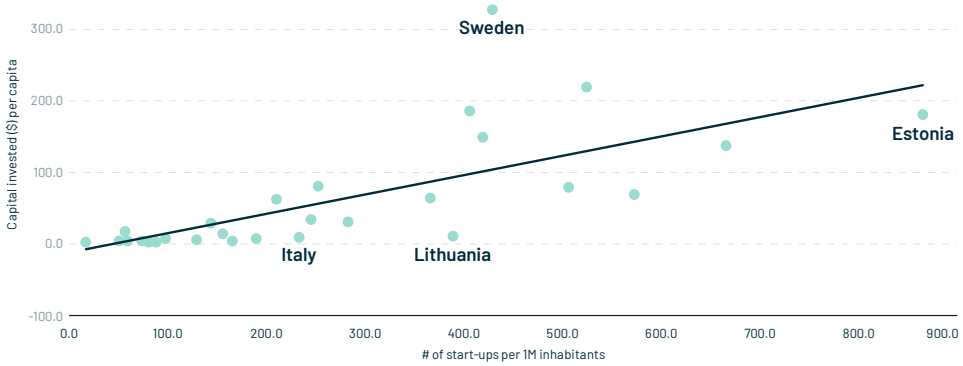
This chart compares the density of entrepreneurial activity within a country, as measured by the ratio of start-ups per capita with the level of per capita investment. Unsurprisingly, the data follows an intuitive trendline; the denser the relative number of start-ups activity within a country, the greater the level of per capita investment. It is unsurprisingly not a perfect correlation. Sweden, for example, has seen materially higher levels of investment per capita relative to the density of startup activity. Estonia, although it ranks amongst the highest for 'per capita investment levels', is arguably underinvested relative to the density of start-up activity in the country, although the gap is not as pronounced as in nearby Lithuania. Italy also stands out as a country that has an underdeveloped private capital market.

Number of start-ups per 1M population versus capital invested ($) per capita

SCAN TO UNLOCK ADDITIONAL DATA

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.



SOURCE: dealroom.co

Another interesting way to highlight the relative maturity of the private capital markets in different countries is to compare the relative share of venture capital investment with the geographic distribution of entrepreneurial and developer talent, as measured by the country of origin of companies that have developed leading mobile applications. This is fascinating as it once again highlights the fact that CEE countries, relative to the depth of their talent pool, are underserved from the perspective of venture investors.

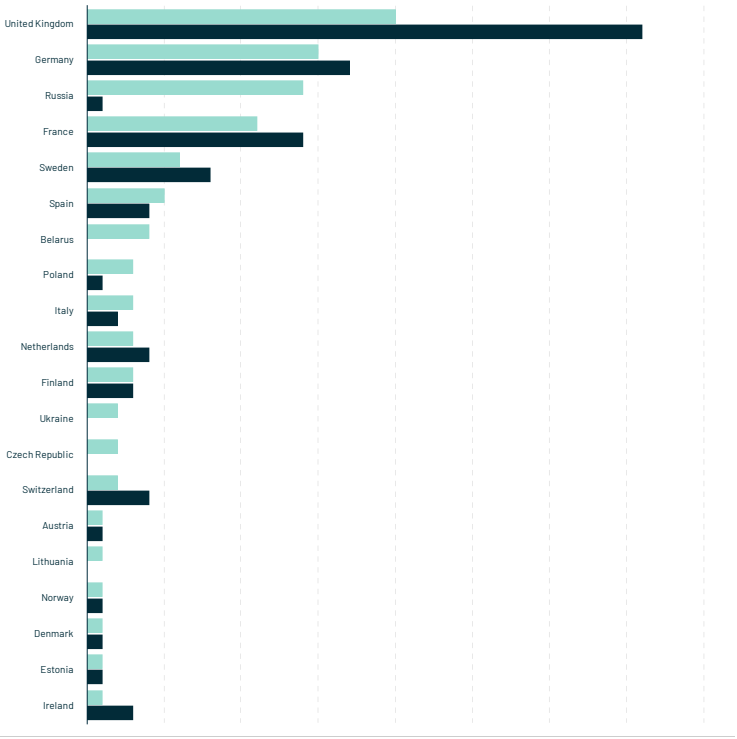
Share of companies with consumer spend in apps >$1m annually versus share of cumulative capital invested (2016-2020) per country

LEGEND

- Number of companies per country with >$1m annual consumer spend in apps
- Share of capital invested, 2016-2020

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.



SOURCE: dealroom.co APP ANNIE

The cumulative level of capital invested by country over the past five years gives a sense of the relative scale of different markets. On a cumulative basis, capital invested into UK tech companies is just short of $50B since 2016, this is more than 2x the capital invested in Germany ($23B) and France ($19B). Cumulative capital invested in Sweden exceeded $10B over this period, while the level of investment in the Netherlands, Switzerland and Spain has grown to more than $5B since 2016.

Capital invested ($M) by country, cumulative since 2016 and per year

LEGEND

- 2016
- 2017
- 2018
- 2019
- 2020

NOTE:

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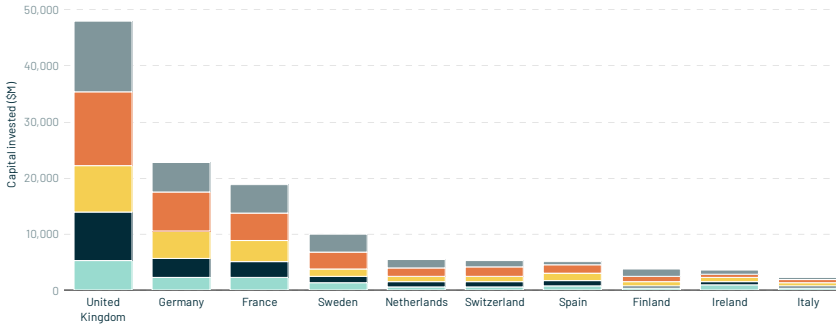
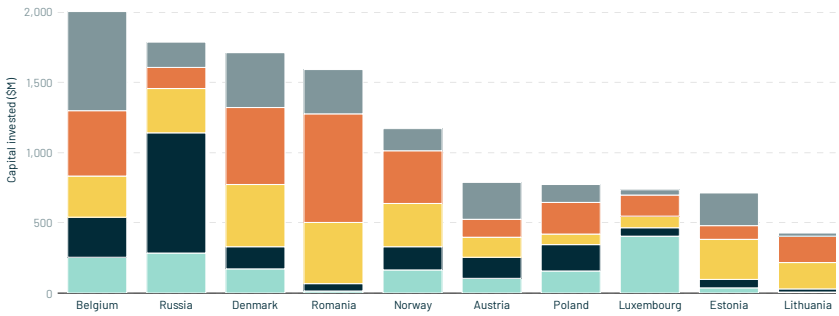
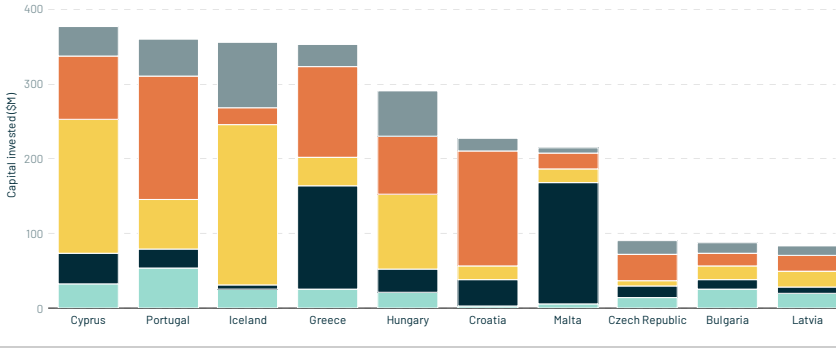
Top 10 countries



Top 11-20 countries



Top 21-30 countries



SOURCE: dealroom.co

> We want to make sure that UK tech comes out of the Covid-19 crisis stronger than ever - supporting the sector through the recovery just as tech supported all of us through the pandemic. Our forthcoming Digital Strategy will unleash the full potential of tech innovators and entrepreneurs across the country, driving a new era of growth.
>
> The UK has long been one of the best places to start and grow a tech business and we intend to keep it that way by taking an unashamedly pro-tech approach.

Oliver Dowden
United Kingdom
Secretary of State for Digital, Culture, Media and Sport

Looking at country-by-country trends on a year-by-year basis, France is the only one of Europe's three largest markets to grow in 2020. Thanks to this uptick in investment in 2020, France is set to exceed $5B capital invested on an annualised basis for the first time. Sweden, Finland and Belgium are other notable countries to beat the slowdown and post growth in 2020.

FRANCE RECORD YEAR

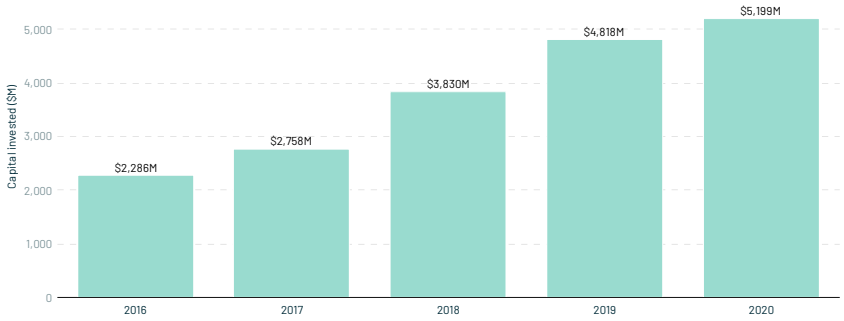
$5B+

capital invested for the first time

Capital invested ($M) by country and by year

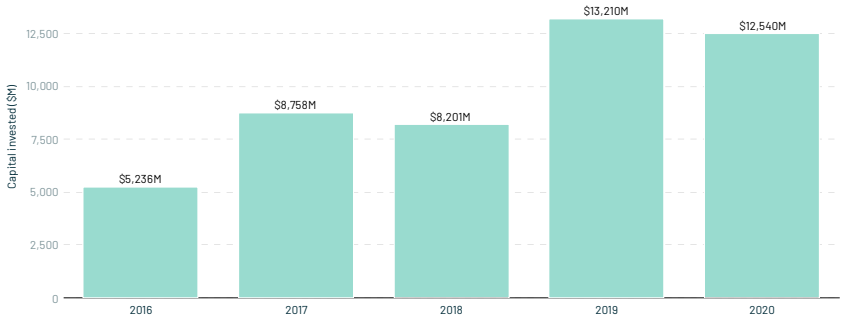
SCAN TO UNLOCK ADDITIONAL DATA

France



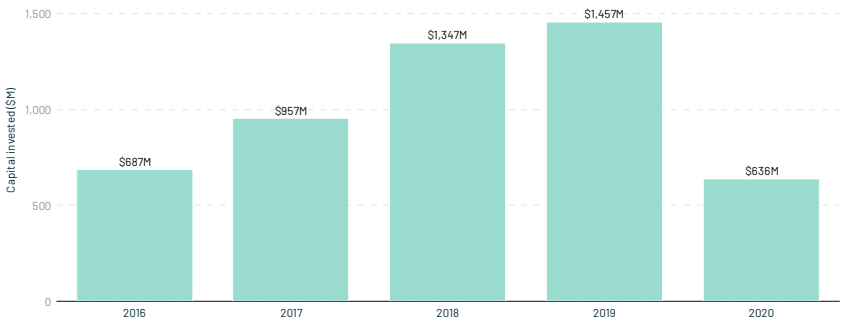
The UK has stayed broadly flat, but at impressive levels with more than $12B of capital invested in 2020.

United Kingdom



Amongst the top 10 countries by cumulative capital invested between 2016-2020, Spain has seen the most significant slowdown with projected capital invested at less than 45% of the total in 2019.

Spain



NOTE:

Chart includes only countries with a population greater than one million. Population data is from the World Bank. 2020 is based on data up to September 2020.

SOURCE: dealroom.co

As discussed previously, capital invested in European tech is rising not only due to an increased number of rounds but also due to increases in the average size of rounds. Rounds have been getting bigger across all stages over the past five years and also across most underlying countries. Though there are still clear differences in round sizes across stages in different European countries, round size inflation is a trend that is common across countries and on the website you can explore examples for six of Europe's largest markets by capital invested: the UK, Germany, France, Sweden, Spain and the Netherlands.

Median round sizes by round stage and by year

LEGEND

- Seed
- Series A
- Series B
- Series C

SCAN TO UNLOCK ADDITIONAL DATA

NOTE:

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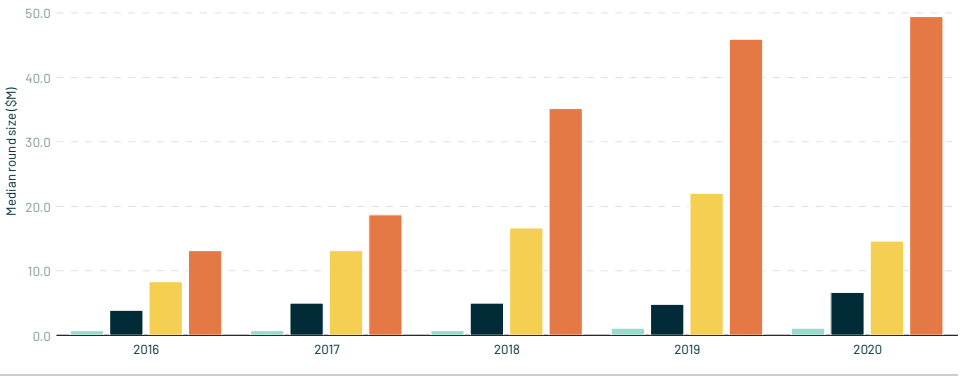
Europe



SOURCE: dealroom.co

Turning now to look at Europe's largest tech hubs, London remains the undisputed hub in terms of capital invested in 2020 and has now attracted $34B in capital investment since 2016. Paris cements its position as Europe's number two hub in 2020 attracting $3.4B in 2020 alone and $11.7B cumulatively since 2016. Stockholm is positioned in the top three hubs in 2020, pushing out Berlin for the first time, though this has largely been driven by two of the year's largest rounds of investment raised by Klarna ($650M) and Northvolt ($600M). On a cumulative basis since 2016, however, Berlin still ranks second to London with $12.6B of investment over that period. Espoo and Helsinki both make the top 10 and, if combined, would equate to the sixth largest in Europe. A few notable absences from the top 20 cities include Copenhagen, Oslo and Madrid.

Top 20 European hubs by capital invested ($M), ranking based on 2020

	2016	2017	2018	2019	2020
London	$3386M	$5980M	$5493M	$9804M	$9598M
Paris	$1246M	$1709M	$2407M	$2970M	$3351M
Stockholm	$905M	$593M	$660M	$2472M	$2725M
Berlin	$1191M	$2056M	$2483M	$4450M	$2465M
Munich	$270M	$379M	$479M	$1413M	$1091M
Amsterdam	$218M	$441M	$529M	$752M	$698M
Zurich	$50M	$580M	$290M	$516M	$569M
Espoo	$15M	$36M	$165M	$59M	$508M
Helsinki	$155M	$143M	$335M	$346M	$453M
Mainz	$7M	$0M	$0M	$0M	$381M
Solihull	$0M	$0M	$0M	$0M	$352M
Bucharest	$1M	$46M	$421M	$574M	$303M
Dublin	$772M	$254M	$334M	$326M	$296M
Cambridge	$82M	$149M	$110M	$229M	$289M
Malmö	$31M	$79M	$50M	$31M	$285M
Barcelona	$322M	$572M	$895M	$645M	$277M
Bristol	$89M	$151M	$284M	$441M	$255M
Düsseldorf	$0M	$20M	$31M	$34M	$244M
Tallinn	$38M	$53M	$285M	$92M	$236M
Vienna	$57M	$122M	$83M	$97M	$197M

NOTE:
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SOURCE: dealroom.co

London, Paris and Berlin remain the top three hubs in Europe by the number of deals. There is a clear decline in the number of deals across a large share of hubs. This is attributable to both the reporting lag effect, but also a drop in deals in the earliest round stages (<$2M). Amongst the top 20 hubs by the number of rounds in 2020, only Edinburgh and Lyon have hit all-time high deal volumes in 2020.

Top 20 European hubs by number of deals, ranking based on 2020

	2016	2017	2018	2019	2020
London	988	984	899	895	740
Paris	428	431	369	329	301
Berlin	422	333	332	289	219
Amsterdam	134	139	136	135	109
Barcelona	158	161	141	113	104
Stockholm	216	180	122	138	100
Munich	84	86	115	93	96
Madrid	100	102	92	92	71
Zurich	50	54	76	75	69
Dublin	125	78	64	62	53
Helsinki	110	96	83	67	49
Copenhagen	72	88	72	75	44
Tallinn	44	42	74	32	43
Edinburgh	32	35	30	34	39
Milan	80	76	96	61	37
Cambridge	32	26	25	26	33
Hamburg	59	51	49	45	32
Rotterdam	28	38	27	38	31
Lyon	22	27	18	20	31
Manchester	25	47	33	32	27

NOTE:
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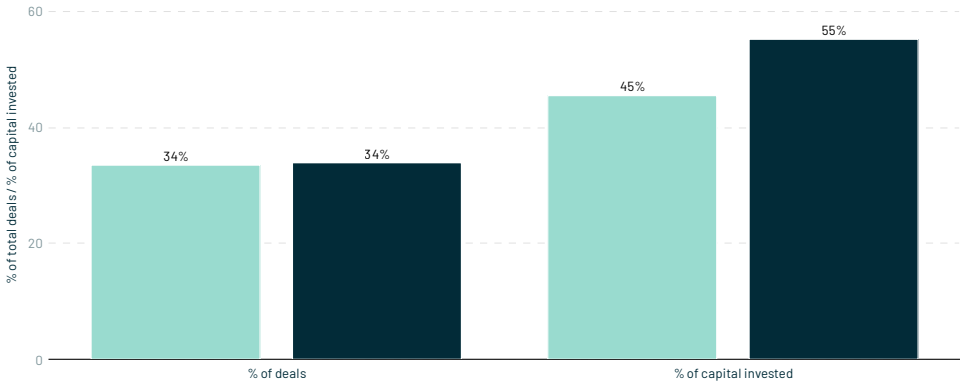
SOURCE: dealroom.co

The geographic diversification of entrepreneurial activity and scaling venture investment in European tech is clear, so it is perhaps counter-intuitive that the share of deals involving Europe's top five hubs has stayed flat over time and that the share of capital invested in those hubs has even increased. The answer, at least partly, lies in the fact that while startup communities are flourishing all across Europe, the flywheel of success is spinning just as quickly, if not faster, in Europe's most mature hubs. Hubs such as London, Berlin, Paris and Stockholm have the densest network of startups, the deepest pools of experienced talent and many of the most sophisticated investors. Little wonder then they continue to power ahead, just as other more nascent hubs takes steps forward too.

Top five hubs as share of total deals (%) and share of capital invested (%), 2016 versus 2020

LEGEND
- 2016
- 2020



NOTE:

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SOURCE: dealroom.co

- Earlier in 2020 at the onset of the pandemic in Europe, questions were raised around whether travel restrictions might impact the level of US investor activity in Europe. This has not proven to be the case. In fact, the level of US investor participation has continued to increase and remains at record high levels.

Share of European deals (%) per year with at least one US or Asian investor

LEGEND

- United States
- Asia
- United States and Asia

NOTE:

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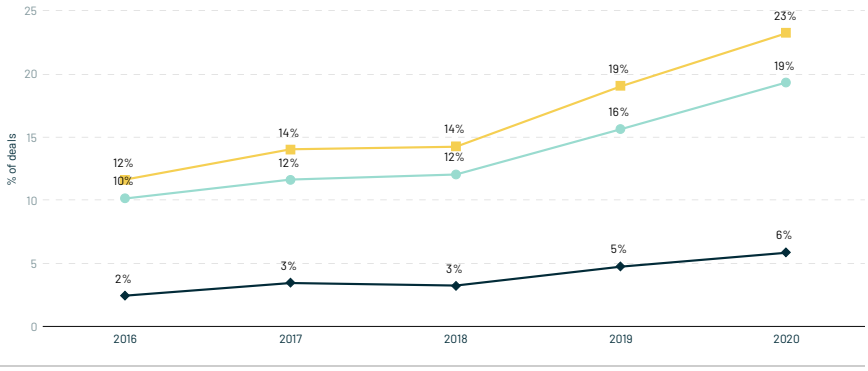

SOURCE: dealroom.co

- Cross-border investment flows demonstrate the internationalisation of the European tech investment landscape. Cross-border investment accounts for two-thirds of all capital invested in the European tech ecosystem. They also change in clear lock-step with the scale of capital being put to work. The earlier stage the company and the smaller the round size, the more domestic the investment pattern. On the flip side, the later the stage of the company and the larger the round, the more international the investor pool. Capital invested into rounds of less than $2M overwhelmingly comes from domestic investors; for rounds of $100M or more, the lion's share of capital comes from outside the continent and, most significantly, from the US.

Share of capital invested (%) in Europe by round size and geographic source region, 2016 to 2020

LEGEND

- Domestic
- Cross-border
- Asia
- North America
- Rest of World

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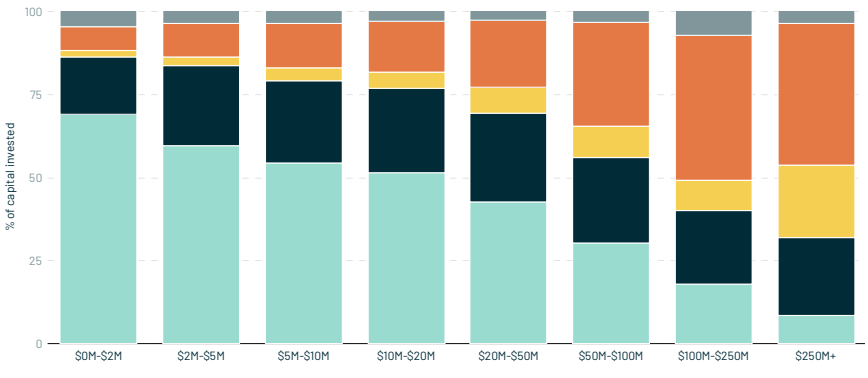

SOURCE: dealroom.co

> The German ecosystem has seen some major investments, despite the crisis. For many years it was hard for German entrepreneurs to find money, in terms of seed investments as well as in growth funding. That has changed completely. Every good idea is finding money right now. What the ecosystem needs is more business models and ideas in order to build unicorns. We have enough money; we need better ideas. One promising area is the digitalization of manufacturing, another are all aspects of business automation. We have seen quite a few quickly growing startups in these areas. A lot more could come out, if business, universities and research institutes would collaborate more closely. A close network between big corporations, small and mid-sized companies, research institutes and the startup scene is crucial for achieving success. A good example for that is the network UnternehmerTUM in Munich.

Sebastian Matthes
Handelsblatt
Deputy Editor-in-Chief

There are very interesting differences in the internationalisation of the private capital markets for tech companies across Europe. The UK, for example, has a strong domestic investor pool, attracts large sums of investment from the US, but a much lower level of cross-border investment from within Europe versus, say, Germany. France is even more weighted towards domestic investors, even in larger rounds. Interestingly, the flow of US capital into European tech companies has been more significant in certain countries. The share of capital from US investors is materially higher in the UK and Germany than in France.

Share of capital invested (%) in the United Kingdom, Germany and France by round size and geographic source region, 2016 to 2020

LEGEND

- Domestic
- Cross-border
- Asia
- North America
- Rest of World

NOTE:

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SOURCE: dealroom.co

The headwinds and tailwinds that the pandemic has created for tech investment are evident when looking at the relative pace of capital invested across different industry verticals in 2020 on a month-by-month basis and in comparison to 2019 and 2018. Health tech companies, which had already been attracting significant capital, have raised record amounts in 2020. Other sectors that appeared to have been buoyed by tailwinds and can be further explored on the website include enterprise software, fintech, and semiconductors. Headwinds appear to have slowed investments into real estate and transportation.

Cumulative month-by-month capital invested ($M) by industry vertical, 2018 to 2020

LEGEND

- January
- February
- March
- April
- May
- June
- July
- August
- Sepember
- October
- November
- December

SCAN TO UNLOCK ADDITIONAL DATA

NOTE:

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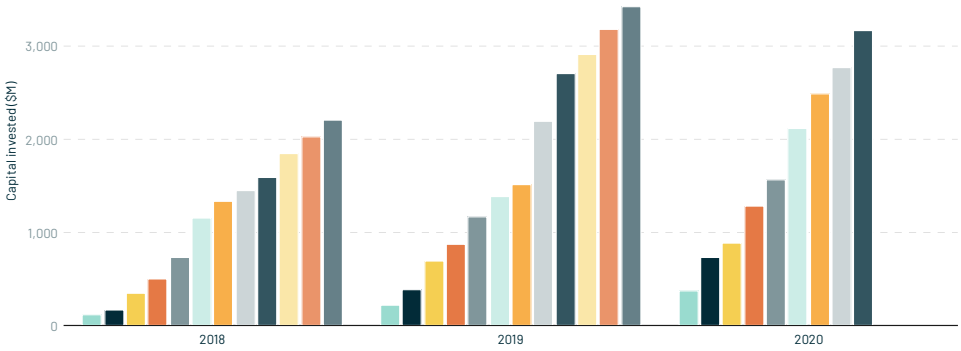
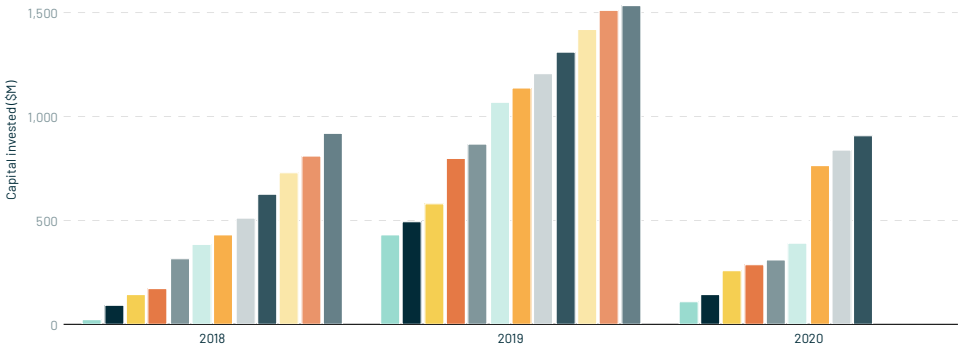
Strong tailwinds: Health



Strong headwinds: Real Estate



SOURCE: dealroom.co

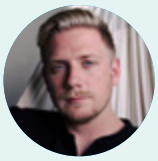
While going through a major challenge like this year is not something any of us would have wanted, I think the resilience it builds in the tech community, its companies, its teams and employees is fundamentally a good thing for the longer term.

Suranga Chandratillake
Balderton
General Partner

The societal impact of lockdown has driven more rapid adoption of a variety of digital services, including in areas where Europe has a particular strength. For example, in fintech, where people were more likely to switch to a service like Revolut when traditional banks still required them to go into branches to manage their accounts.

Similarly, European healthtech is really strong, and while not the driver anyone wanted, COVID led to huge investment and activity which has led to strong growth, including in areas like AI-based diagnosis and remote primary care. While going through a major challenge like this year is not something any of us would have wanted, I think the resilience it builds in the tech community, its companies, its teams and employees is fundamentally a good thing for the longer term.

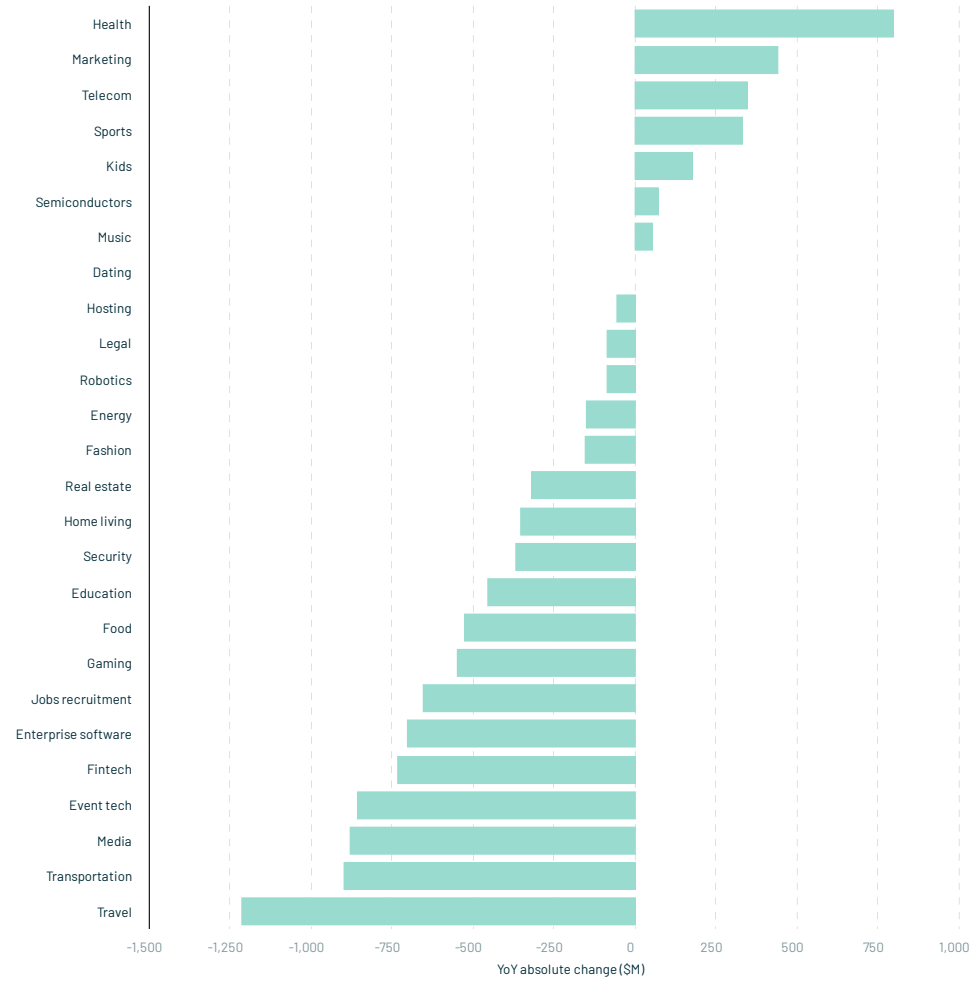
> A global pandemic presents my company with more opportunities than threats. When people are unsure about their future, there's a chance to guide them through these changes, be it financially or even psychologically. That's certainly not the case for every business. Tech companies in travel or hospitality have been hit hard. Like elsewhere on the planet, they need to reinvent the relationship with their customer to survive. The Netherlands has the social support system and government support to weather the storm, but the lowest incomes are still hit hard. I sincerely believe that tech, as an industry, does not exist. Tech is a part of every industry. We should create equal opportunities for anyone, regardless of background or income level, to contribute.



Robert Gaal
Cooper
Co-Founder

- After a strong start to the year, travel companies have seen capital invested in the industry vertical slow dramatically. The travel sector is expected to see 62% less capital invested in 2020 relative to 2019, though companies such as GetYourGuide ($133M) and Omio ($100M) showed that the strongest companies could raise in spite of a collapse of demand.

Absolute change by industry vertical of capital invested ($M), 2019 versus 2020



NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, grants. Please also note the data excludes Israel. 2020 annualised based on data to September 2020.

SOURCE: dealroom.co

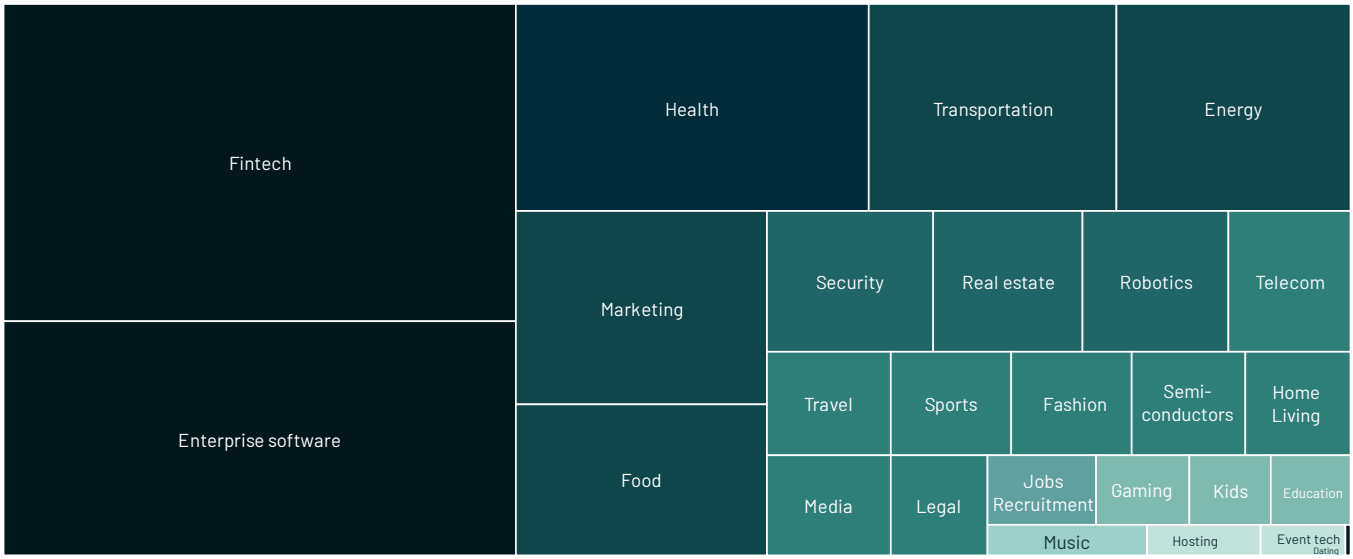
European fintech companies raised more capital in 2020 than any other industry vertical, driven by a number of huge growth rounds raised by Europe's largest fintech giants. Klarna raised $850M across two rounds, including a giant $650M round in September. Revolut raised $500M in February, while Checkout.com raised another large round of $150M in June. More than $20B has been invested into European fintech companies in the past two years alone. Enterprise software companies also continued to raise large sums of capital in 2020, led by companies such as Mirakl ($300M), UiPath ($225M), MessageBird ($200M) and Snyk ($200M). Capital invested into companies in the transportation and energy industry verticals was also strong, though at somewhat reduced levels compared to 2019. The UK's Cazoo raised a particularly noteworthy $310M Series D, just two years after founding. Sweden's Northvolt raised a further $600M and has now raised more than $1.6B in just three years.

Capital invested ($M) by industry, 2020

NOTE:
All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is annualised based on data to September 2020.

LEGEND

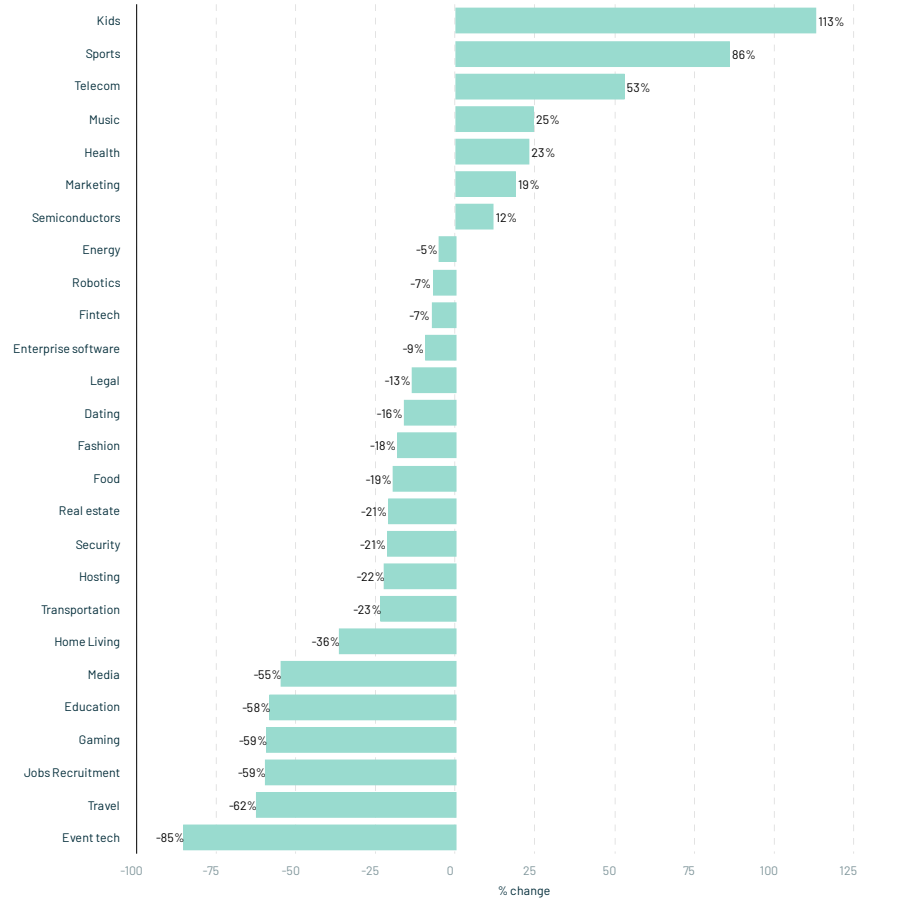
- up to 10,000
- 4,000 to 6,000
- 2,000 to 4,000
- 1,000 to 2,000
- 500 to 1,000
- 400 to 500
- 300 to 400
- 200 to 300
- 100 to 200
- 50 to 100
- up to 50



SOURCE: dealroom.co

The relative year-on-year change in capital invested across Europe by industry vertical also provides an interesting lens through which to view 2020 investment themes. Kids and sports have seen the highest overall percentage increase, albeit from smaller bases. Interestingly, only three industry verticals in total have recorded year-on-year increases in capital invested. On the other end of the spectrum, capital invested in event tech, travel and jobs recruitment companies saw the steepest decline overall.

% change by industry vertical of capital invested, 2019 versus 2020



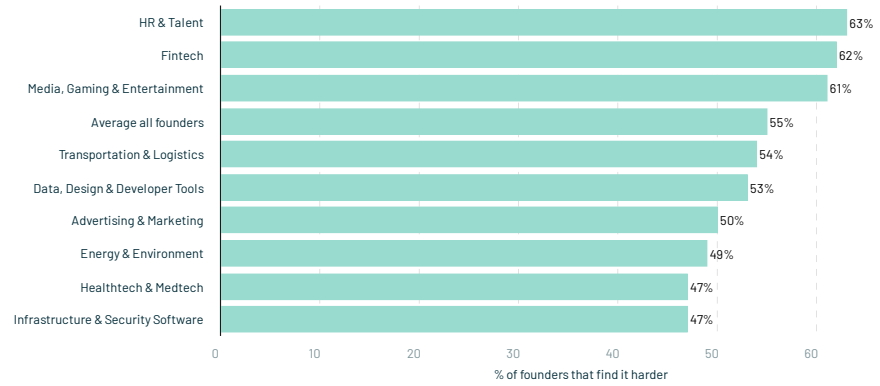
NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.

SOURCE: dealroom.co

This is further echoed by founders building companies in the HR & talent space who have found it more difficult to raise venture capital in Europe in the last 12 months than others. Perhaps also less surprising to see founders in health tech and security software ranking below the average (55%) in light of the pandemic and heightened cyberattacks/data breaches.

Share of founder respondents who agree with the statement: It is harder to raise venture capital in Europe than it was 12 months ago



NOTE:

Founders respondents only. Sectors with at least 50 responses only.

SOURCE: The State of European Tech Survey

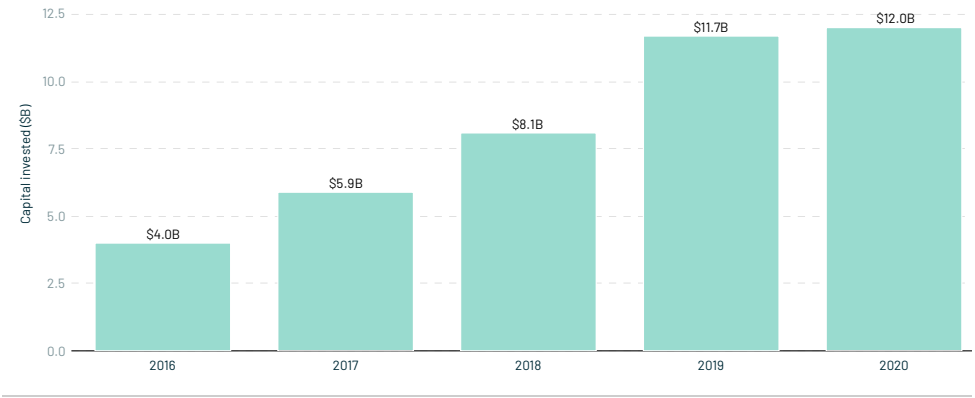
Sitar Teli
Connect Ventures
Managing Partner

I'm looking at areas that benefit from community-based healthcare. Broadly, this includes chronic diseases, long-term diseases, and under resourced areas like menstrual and mental health. These are areas where public healthcare has limited budget and resources and where private healthcare can often be prohibitively expensive. In addition, even if you do receive healthcare for it, there's a social and community component that is lacking which can be highly value add from the perspective of knowledge transfer, mental well-being and peer support. We've already made one investment in this space, Second Nature, and I'm looking for more.

For Europe to create more health tech breakout success stories, one of two things is required: pan-European plays or companies that can successfully grow their business in the US. Both have their issues. Each country in Europe has a different national healthcare system and different cultural attitudes towards healthcare, so while in aggregate it's a compelling market, scaling across Europe is very challenging. The US on the other hand has a large market with a very different, profit driven attitude towards healthcare, but the healthcare system, payment coverage and attitudes towards healthcare are quite different from the most of the world, which makes it a daunting market to conquer.

- European SaaS continues to go from strength to strength with record levels of capital invested in 2020. The $12B of capital invested in 2020 takes the cumulative total investment into European SaaS companies to more than $40B since 2016.

Capital invested ($B) in European SaaS companies per year



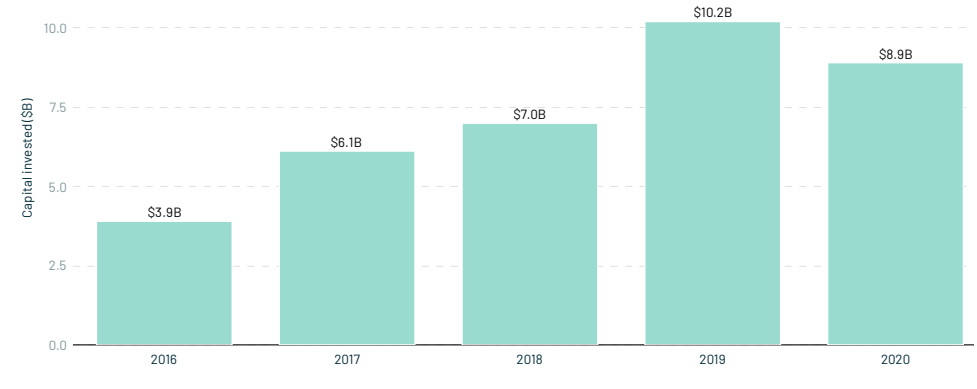
SOURCE: dealroom.co

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, grants. Please also note the data excludes Israel. 2020 annualised based on data to September 2020.

Capital invested in European companies building with deep technology at their core or in an applied way raised $8.9B in 2020, down from $10.2B in 2019. Since 2016, cumulative investment into deep tech companies in Europe has surpassed $36B. Since deep tech can be perceived as a nebulous term, it is worth spelling out the underlying methodology used to derive these numbers. In Dealroom's methodology, deep tech is used as a meta tag to encompass start-ups in 16 fields: Artificial Intelligence/ Machine Learning/ Big Data, Augmented Reality/ Virtual Reality, Drones/ Autonomous Driving, Blockchain/ Nanotech, Robotics/ Internet of Things, 3D Technology/ Computer Vision, Connected Device/ Sensors Technology, and Recognition Technology (NLP, image, video, text, speech recognition).

Capital invested ($B) in European deep tech companies



SOURCE: dealroom.co

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is annualised based on data to September 2020.

> More broadly I think Europe needs to find a way to get its best companies to not sell too soon - especially as deep tech gets deeper and much more patient capital will be needed to meet some of the huge challenges we face as a world. People don't really talk much about technology sovereignty but if recent events have taught us anything it's that geopolitics is getting more not less volatile and as a European, I'd feel a lot more comfortable if we not only developed but owned more of the future too.

Steve O'Hear
TechCrunch
Journalist

Slush 2019
Photo by: Jussi Hellsten

02.3

Tech with Purpose

Last year, in collaboration with Dealroom, this report proposed a methodology to measure entrepreneurial activity and capital invested into purpose-driven tech companies across Europe. This was based on a simple framework aligned with the United Nations Sustainable Development Goals ("SDGs").

The first iteration in 2019's report focused on a subset that started with seven of the 17 SDGs. Since last year's report, Dealroom has continued to develop the methodology and build out its coverage of purpose-driven tech companies to enable an analysis that is now extended across all 17 SDGs.

For each of the individual SDGs, Dealroom's team has manually assigned keywords to tag companies in its platform with relevant categories. Each company is then individually reviewed and assigned to either "core" or "side" depending on the business model alignment with the SDGs, in other words whether it is core to a company's business model, or simply a peripheral or indirect aspect of the business model.
By extending the analysis in this way, Dealroom has grown the dataset from 528 unique venture-backed, purpose-driven tech companies analysed in the 2019 report to over 3,000 in this year's report.
As always, we understand the methodology has limitations and welcome feedback both in terms of scope and methodology in future iterations. The dataset and methodology are accessible on the 'Impact & Innovation' section of their website.

Overview of SDGs included in analysis and mapping to keywords on Dealroom's platform

	Description	Selected Dealroom Keywords
SDG 1: No Poverty	End poverty in all its forms everywhere	Extreme poverty, unbanked, disaster prevention, microlending
SDG 2: Zero Hunger	End hunger, achieve food security, and improved nutrition and promote sustainable agriculture	Food security, vertical farming, poor nutrition, permaculture
SDG 3: Good Health and Well-being	Ensure health lives and promote well-being for all at all ages	Prenatal care, road safety, telemedicine, contraception, antimicrobial resistance, elderly care
SDG 4: Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Universal primary education, equal education
SDG 5: Gender Equality	Achieve gender equality and empower all women and girls	AI measuring bias, reproductive rights, female health, non-binary
SDG 6: Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all	Safe water, wastewater treatment, water saving, desalination
SDG 7: Affordable and Clean Energy	Ensure access to affordable, reliable, sustainable and modern energy for all	Solar energy, wind energy, tidal power, hydrogen, off-grid
SDG 8: Decent work and economic growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Gender pay gap, equal pay, inclusive employment, fair trade
SDG 9: Industry, Innovation and infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Sustainable industrialization, universal access to technology, inclusive industrialization
SDG 10: Reduced inequalities	Reduce inequality within and among countries	Safe migration, refugees integration, racial discrimination
SDG 11: Sustainable Cities and Communities	Make cities and human settlements inclusive, safe, resilient and sustainable	Air quality measurement, urban waste reduction, affordable housing
SDG 12: Responsible consumption and Production	Ensure sustainable consumption and production patterns	Food waste, sustainable fashion, circular, sustainable materials
SDG 13: Climate Action	Take urgent action to combat climate change and its impacts	Carbon capture, carbon offset, climate tech, alternative protein
SDG 14: Life below Water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Marine conservation, seafood substitutes, overfishing, plastic pollution
SDG 15: Life on Land	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Forestry, biodiversity, wildfires
SDG 16: Peace, justice and strong institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Govtech, digital democracy, corruption prevention
SDG 17: Partnerships	Strengthen the means of implementation and revitalize the global partnership for sustainable development	SDG partnership, impact partnership

SOURCE: dealroom.co

Total capital invested in purpose-driven tech companies is expected to exceed $6B in 2020. 80% of this capital has been invested in purpose-driven companies where impact is at the core of their business model.

CAPITAL INVESTED

$6B

capital invested in purpose-driven companies

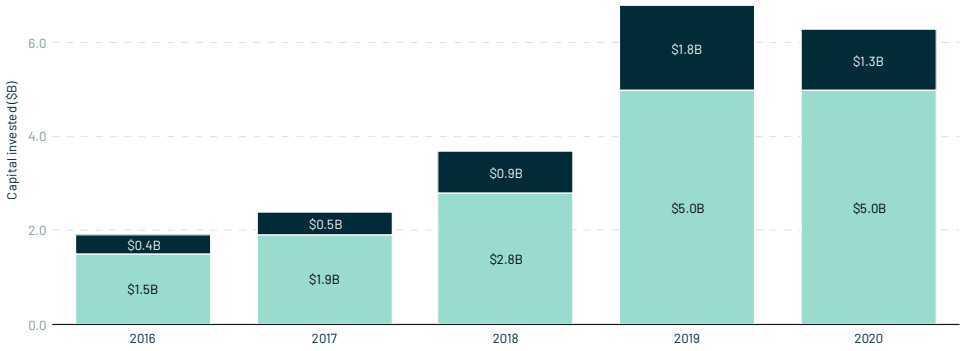
Capital invested ($B) in purpose-driven European tech companies per year

LEGEND

- Core
- Side

NOTE:

"Core" purpose-driven start-ups have impact at the core of their business model while "side" have it as a peripheral focus. 2020 is annualised based on data up to September 2020.



SOURCE: dealroom.co

Over $20B has been invested in purpose-driven tech companies over the last five years across more than 3,000 rounds. In 2020, approximately 17% of total capital invested in European tech companies went to purpose-driven companies, of which those with purpose at their core accounted for the lion's share of investment.

CAPITAL INVESTED (2016-2020)

$20B

capital invested in purpose-driven tech companies in the past 5 years

Capital invested and deals in purpose-driven European tech companies per year as a share of total capital invested and deals (%)

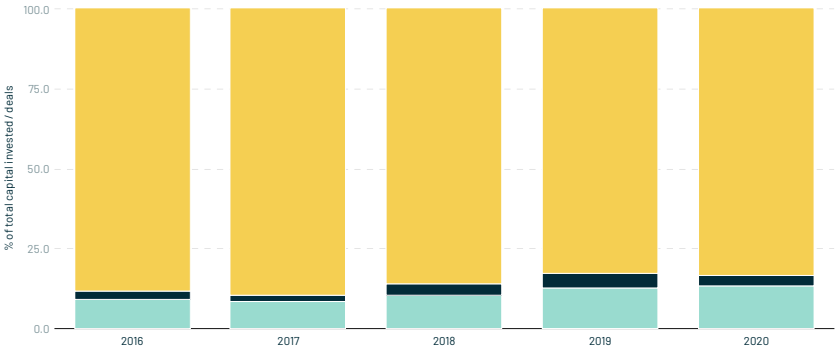
LEGEND

- Core
- Side
- Other

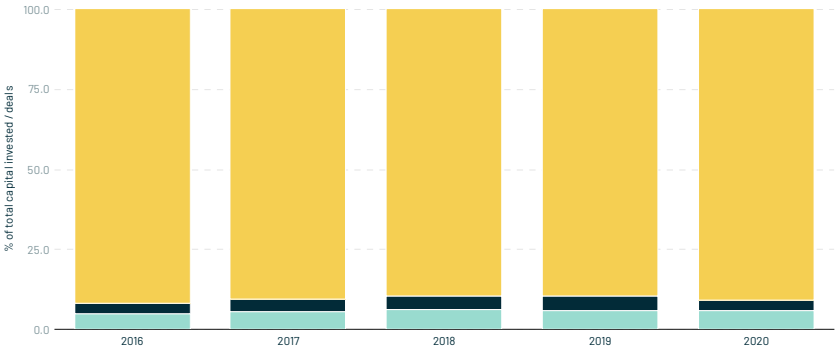
NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.

Share of capital invested



Share of deals



SOURCE: dealroom.co

European entrepreneurs and investors appear to be responding to the global climate crisis. European tech companies targeting climate action (SDG #13) have attracted greater sums of investment than purpose-driven start-ups addressing any other SDG with more than $11B invested cumulatively since 2016. This is followed by investment into companies addressing SDG #7, affordable and clean energy, which have attracted $9.7B of cumulative investment since 2016.

CLIMATE ACTION

$11B

capital invested into European tech companies targeting climate action since 2016

Capital invested ($M) in purpose-driven European tech companies per SDG addressed

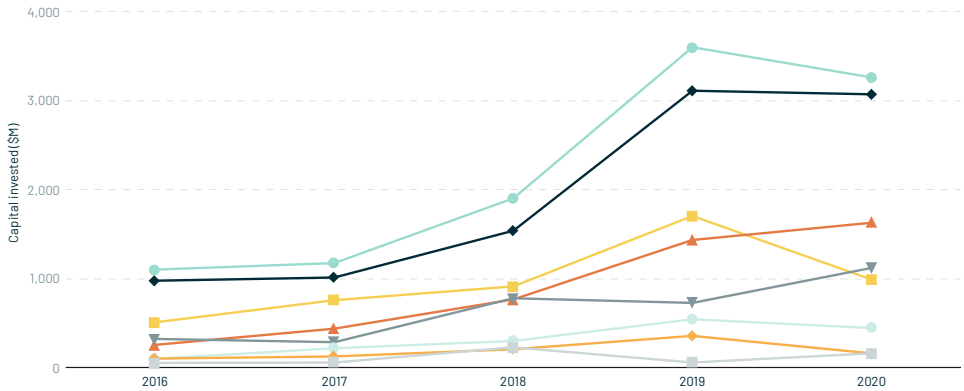
LEGEND

- SDG 13: Climate action
- SDG 7: Affordable and clean energy
- SDG 3: Good health and well-being
- SDG 11: Sustainable cities and communities
- SDG 12: Responsible consumption and production
- SDG 2: Zero hunger
- SDG 9: Industry, innovation and infrastructure
- SDG 14: Life below water

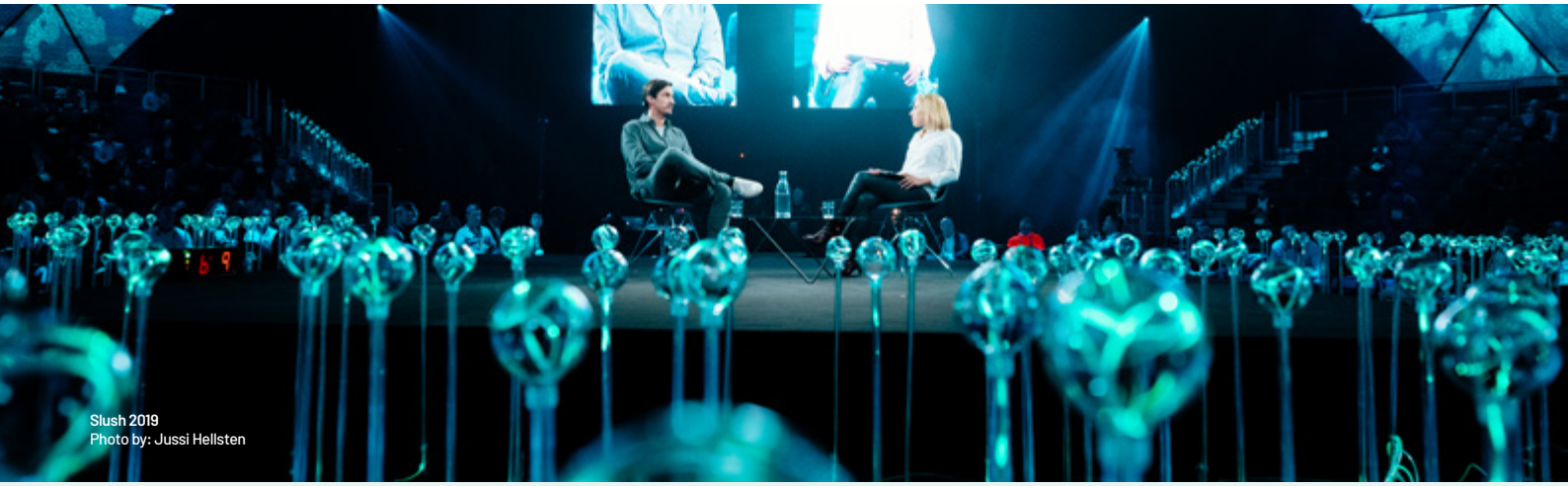
NOTE:

Companies addressing more than one SDG are counted against each individual SDG they are targeting. 2020 is annualised based on data up to September 2020.

>$500M invested cumulatively



SOURCE: dealroom.co



Slush 2019
Photo by: Jussi Hellsten

> **On climate specifically, we see a lot of forces at play in making this one of the most attractive investment opportunities in Europe, both in terms of profit and impact.**

Heidi Lindvall
Pale Blue Dot
General Partner

On climate specifically, we see a lot of forces at play in making this one of the most attractive investment opportunities in Europe, both in terms of profit and impact. Multiple European countries have committed to going carbon neutral before 2030, and there are notable changes in policies and regulations forcing businesses to shift gears and come up with new ways to operate in more sustainable ways. At the same time we see a raised awareness in consumers demanding change and more founders are moving to climate as being the most urgent problem for us to solve. All of these are contributing in giving Europe a competitive advantage in becoming the leader in climate tech.

Climate action accounts for roughly 29% of all capital invested in purpose-driven tech companies since 2016 cumulatively. The extent to which European tech investors are embracing climate action, affordable and clean energy, and sustainable communities is increasing and is reflected in the pace and scale of investment in the last two years, nearly doubling the capital invested between the three years in 2016-2018. Interestingly, although less than $500M has been invested in SDGs targeting life on land since 2016, the capital invested in this segment since 2019 has more than doubled since that of three years prior.

Capital invested ($M) in purpose-driven European tech companies per SDG addressed, 2015-2017 versus 2018-2020

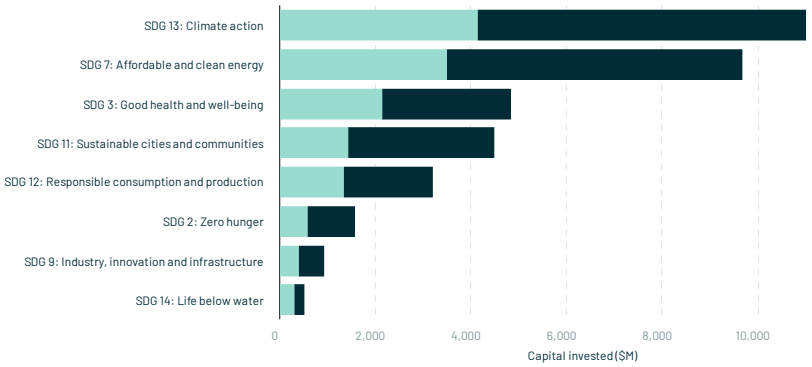
LEGEND

- 2016-2018
- 2019-2020

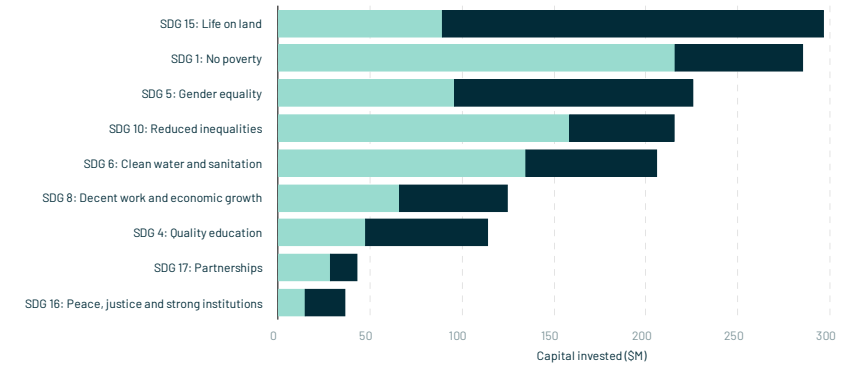
NOTE:

2020 is annualised based on data up to September 2020.

>$500m invested cumulatively



<$500m invested cumulatively



SOURCE: dealroom.co

European purpose-driven companies have raised a number of mega-rounds this year.

Top 10 largest deals raised by purpose-driven tech companies in 2020

	Company	Description	City	Country	Round Size ($M)	Deal Date
1	Northvolt	Lithium-ion batteries	Stockholm	Sweden	600	September 2020
2	Octopus Energy	B2C sustainable energy supplier	London	United Kingdom	396	April 2020
3	Lilium	Fully electric vertical take-off and landing (VTOL) jet	Weßling	Germany	240	March 2020
4	EcoVadis	Sustainability ratings software	Paris	France	200	January 2020
5	Kry	Telemedicine platform	Stockholm	Sweden	154	January 2020
6	Back Market	Refurbished electronics marketplace	Paris	France	121	May 2020
7	Arrival	Electric buses and vans	London	United Kingdom	113	January 2020
8	Connexin	Smart citiy infrastructure	Hull	United Kingdom	106	September 2020
9	Tokamak Energy	Fusion power research company	Abingdon	United Kingdom	87	January 2020
10	Volocopter	Fully electric helicopter	Bruchsal	Germany	87	February 2020

SOURCE: dealroom.co

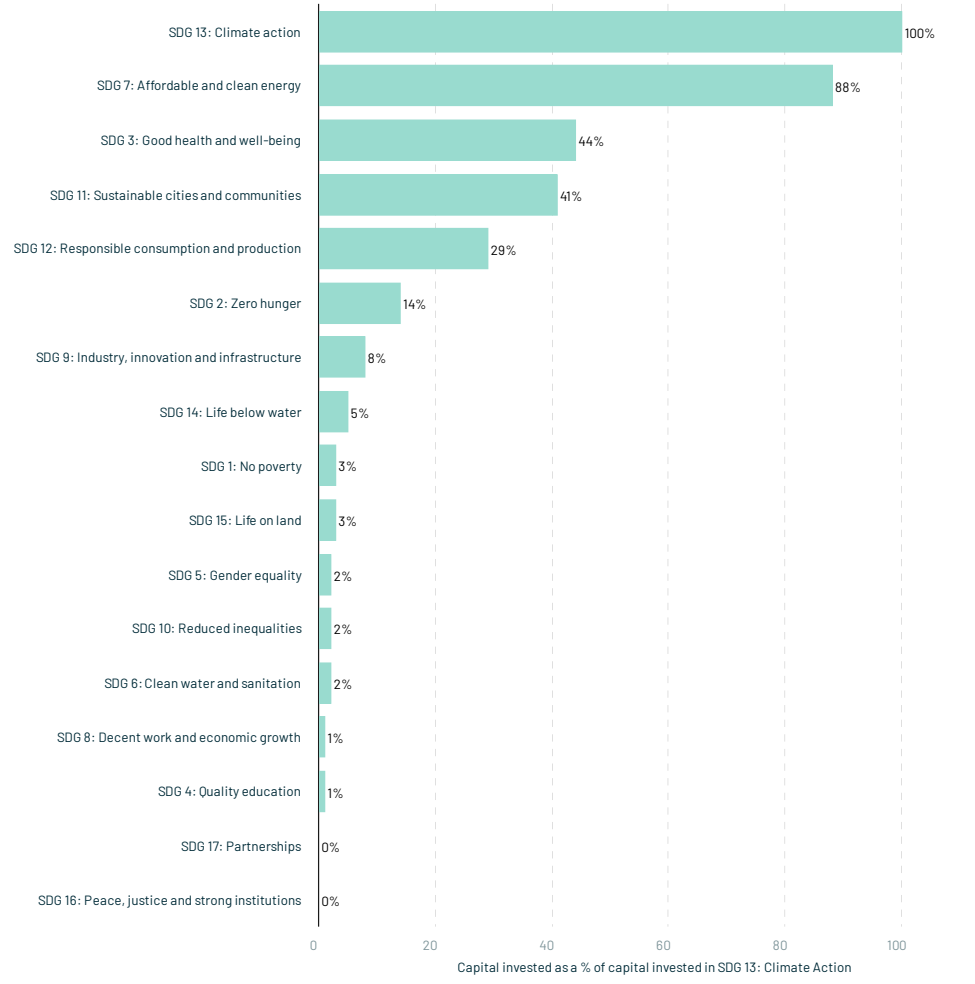
Agathe Wautier
Galion Project
Co-Founder

Being purpose driven is not an advantage anymore: it's a must! For consumers, investors, talents, and companies altogether. Nowadays, entrepreneurs cannot launch a company without a strong purpose driven mission. In France, we even modified our law with « La loi Pacte » to encourage companies to be more purpose driven and integrate their social and environmental issues in their business model. It is a radical change which shows how serious environmental and social issues are to us.

On the financing front, a look at some of the biggest amounts raised in 2020 show how attractive purpose driven Tech companies like Ynsect, Ecovadis, Backmarket or Alan have become. Tech for good founders have no problem raising big rounds in order to scale their companies. They are brilliantly demonstrating that profits and impact are compatible. In the Galion project we are thrilled to help scaling Tech for good founders: the first Impact Unicorns will be European!

Still, European tech entrepreneurs have not taken up all the SDGs with the same gusto. For example, the combined level of investment into the eight SDGs that rank lowest is equivalent to just 27% of the total investment into the top-ranking SDG, Climate Action (SDG #13). Though the level of entrepreneurial activity and investment around many SDGs today remains low in comparison to others, it's reasonable to increase this as purpose-driven entrepreneurship continues to scale in Europe. For example, it's likely that there will be increased activities around SDG #4: Quality education given the way that education is delivered today has come into the spotlight during the pandemic. In fact, more angel investor survey respondents selected this area as the sector they are most excited by than for any other.

% change by industry vertical of capital invested, 2019 versus 2020



NOTE:

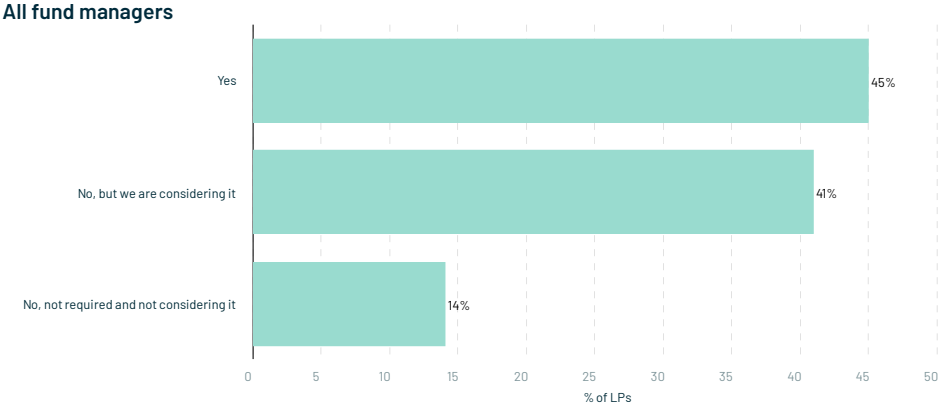
Based on a set of over 3,000 unique companies identified by Dealroom. 2020 is annualised based on data up to September 2020.

SOURCE: dealroom.co

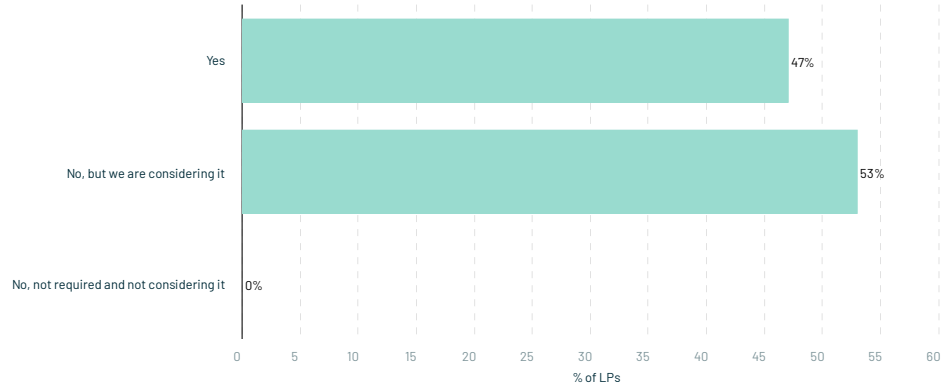
A further tailwind for increased investment into purpose-driven tech companies comes from the institutional investor layer and LPs. LPs are increasingly focused on environmental, social and governance ('ESG') considerations when deploying capital. In fact, 45% of LP respondents to the survey stated that they require their GPs (i.e. the fund managers they have invested in) to report on the social and environmental impact of their portfolio, while a further 41% are considering implementing this requirement. Established fund managers are also more likely to be required this type of reporting from their LPs in the future with 47% stating this as a requirement and 53% considering this practice. As such, it is becoming an increasingly important part of the LP mandate for VCs in Europe.

Do you require GPs to report on social and environmental impact?

All fund managers



Established Fund manager (Fund IV+)



SOURCE: The State of European Tech Survey

NOTE:

LP respondents only. The responses to this question have been aggregated based on how respondents answered the following question: "What type of fund managers do you normally invest in?"

Shalini Rao
Generation Investment Management
Director, Growth Equity

Absolutely, we see LPs consistently developing greater sophistication across sustainability. We engage in a two-way conversation with our LPs, with both parties pushing the other to think more deeply about sustainability and our respective roles as advocates. For example, our Growth Equity team weaves sustainability into term sheets, mandating quarterly reporting of financial metrics alongside impact metrics. To us, measuring the full value of a company includes considering how value will accrue to all company stakeholders. We report on these metrics to our LPs, including through an annual sustainability report, portions of which we make public and house on our website.

We are deeply committed to measuring outcomes against our sustainability objectives of planetary health, people health and financial inclusion, and work diligently alongside our portfolio companies to do so. We measure not just what a company does (i.e. the products and services they deliver) but also how a company operates (i.e. the sustainability of their organisation and practices). In turn, our portfolio companies find this process valuable to help embed sustainability KPIs into their core product, management systems, and long term goal setting.

03 Investors

Who are Europe's tech investors and how resilient have they been?

European VC fundraising is on track to hit record levels this year, while institutional investor appetite for European tech has never been stronger and US investors continue to pour more money into the region. As Europe's ecosystem continues to mature and a more diversified set of investors invest in tech, it becomes less reliant on funding from government agencies, which share of total funding has declined over time.

03.1
Limited Partners

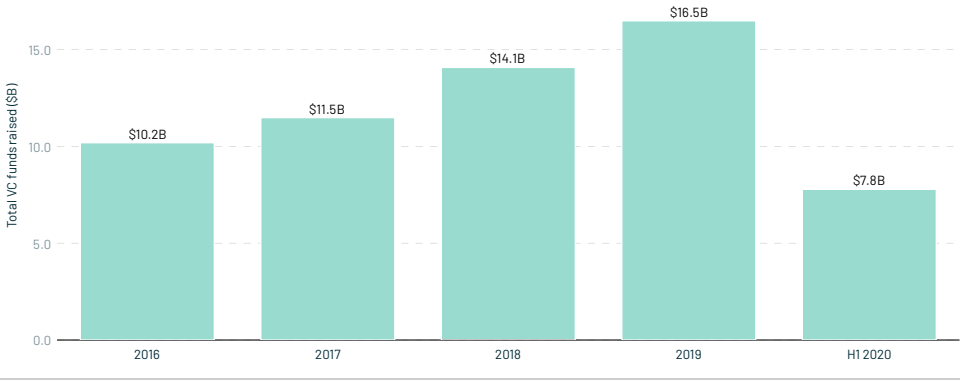
- European venture capital fundraising continued its upward trajectory in 2019, setting another record year by closing on $16.5B of new funds. Preliminary results for 2020 are also encouraging with fundraising activity in the first six months of 2020 slightly ahead of H1 2019 ($7.8B versus $7.5B) and very much on track to break 2019's full-year total.

FUNDRAISING RECORD

$16.5B

new funds raised by VCs in 2019

Overall VC funds raised ($B) per year



NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.

SOURCE: INVEST EUROPE

- Many of Europe's leading VCs have raised new vehicles to continue investing in Europe's next generation of founders.

European Venture Capital funds raised in 2020 by fund size and country

$250M+

	Investor	Fund Name	Fund Size ($M)	Fund Country
1	Index Ventures	Index Ventures Growth V	1,200	United Kingdom
2	Atomico	Atomico V	820	United Kingdom
3	Index Ventures	Index Ventures X	800	United Kingdom
4	HV Capital	Holtzbrinck Ventures Fund VIII	630	Germany
5	Lakestar	Lakestar Growth I	465	Switzerland
6	Dawn Capital	Dawn Capital IV	400	United Kingdom
7	Felix Capital	Felix Capital Fund III	300	United Kingdom
8	Lakestar	Lakestar III	275	Switzerland

$100M-250M

	Investor	Fund Name	Fund Size ($M)	Fund Country
1	Project A	Project A Ventures III	229	Germany
2	Speedinvest	SpeedInvest III	208	Austria
3	Blossom Capital	Blossom Capital II	185	United Kingdom
4	Target Global	Target Global Early Stage Fund II	133	Germany
5	Point Nine Capital	Point Nine Capital Fund V	118	Germany
6	Gaia Capital Partners	Gaia Growth I	113	France
7	Kindred Capital	Kindred Capital II	106	United Kingdom
8	Hoxton Ventures	Hoxton Ventures II	100	United Kingdom

<$100M

	Investor	Fund Name	Fund Size ($M)	Fund Country
1	Seaya Ventures	Seaya Ventures III	95	Spain
2	Connect Ventures	Connect Ventures Fund III	90	United Kingdom
3	Samaipata Ventures	Samaipata Ventures II	88	Spain
4	KFund	K Fund II	77	Spain
5	Frontline Ventures	Frontline X	72	Ireland
6	Fly Ventures	Fly Ventures II	59	Germany
7	La Famiglia	La Famiglia Fonds II	58	Germany
8	7percent Ventures	7 Percent Ventures II	52	United Kingdom

SOURCE: atomico

APPETITE FOR EUROPEAN VENTURE

94%

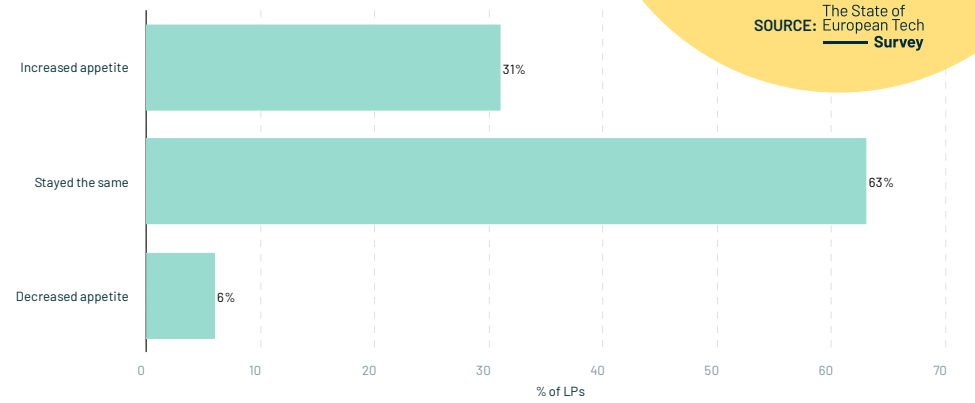
of LP respondents have either increased or maintained their appetite to invest in the European venture asset class

SOURCE: The State of European Tech Survey

- This buoyant fundraising environment is also underpinned by robust Limited Partners ('LP') sentiment, which does not appear to have been negatively impacted by the Covid-19 pandemic. 94% of LP respondents have either increased or maintained their appetite to invest in the European venture asset class, while just 6% of LPs stated their appetite has decreased since the onset of the pandemic. The number of LPs with an increased appetite exceeds those with a decreased appetite by greater than 4x.

Since the start of the Covid-19 pandemic, has your appetite to invest in the European venture asset class changed?

NOTE:
LP respondents only.



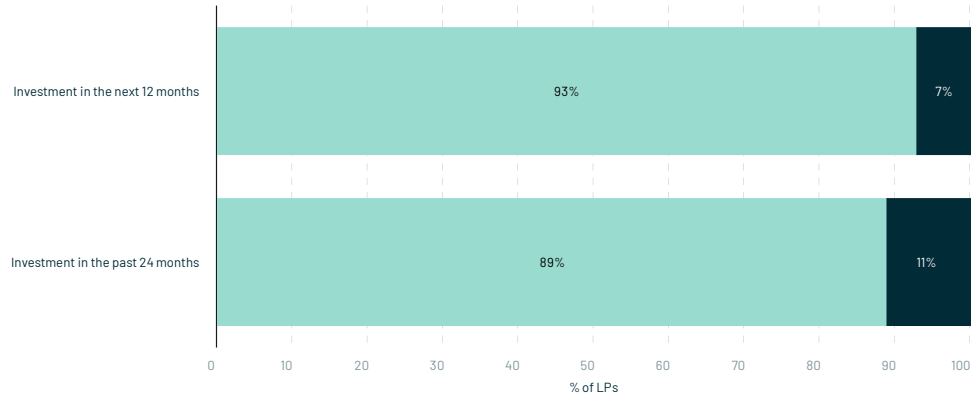
SOURCE: The State of European Tech Survey

- The strong level of continued LP commitments to European venture is also highlighted by LP willingness to keep investing actively in 2021. 93% of LPs surveyed expect to remain active in the next 12 months, while 89% have invested in the past 24 months.

Have you invested in VCs in Europe in the past 24 months and are you considering investing in a VC fund in the next 12 months?

LEGEND
- Yes
- No

NOTE:
LP respondents only.



SOURCE: The State of European Tech Survey

The ecosystem's maturation is also reflected in the scaling up of European VC funds. The share of total funds raised through vehicles of greater than €250M continues to increase and represented close to 60% of the total in the first six months of 2020, compared to 36% in 2016. This has been driven primarily by the growing number of European funds raising in excess of €500M, which accounted for 43% of all VC funds raised in Europe during the first half of 2020, versus just 10% in 2016. Over a period of 18 months since the start of 2019, 13 funds sized at more than €500M have been closed, raising over $7.4B, compared to just 7 funds raising $4B over the preceding three years.

FUNDS > €250M

60%

of total funds raised in H1 2020

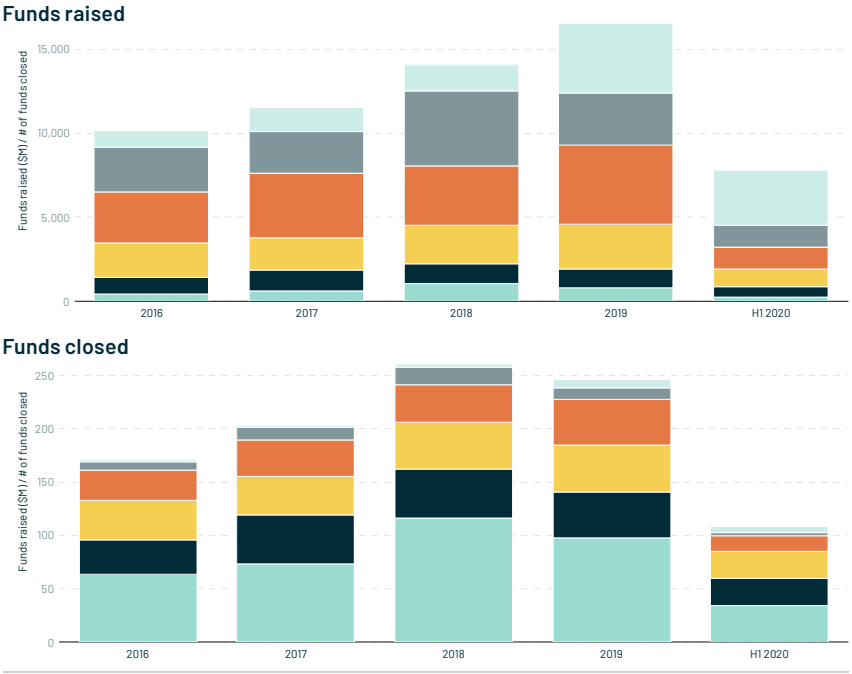
VC funds raised ($M) and number of VC funds closed per year by fund size (€M)

LEGEND

- < €25m
- €25 - 50m
- €50 - 100m
- €100 - 250m
- €250 - 500m
- >€500m

NOTE:

Preliminary H1 2020 figures. Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, as of 30 June 2020. The data shows incremental amounts in each year for venture funds, not only final closing.



SOURCE: INVEST EUROPE

This is, perhaps unsurprisingly, being chiefly driven by funds raised by VC firms who have already raised a first-time fund, where the median fund size has nearly tripled since 2016 to reach a record $133M in H1 2020. The median size of first-time VC funds closed in Europe in the first half of 2020 was $60M, in line with the prior year, though this represents a material step-up compared to the multi-year trend observed prior to 2019.

FOLLOW-ON VC

$133M

median fund size in H1 2020

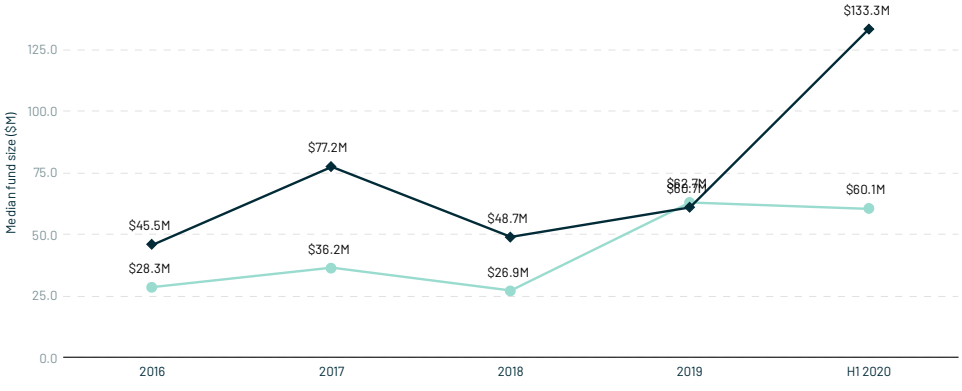
Median VC fund size ($M) at final closing per year by fund type, 2016 to H1 2020

LEGEND

- First-time VC
- Follow-on VC

NOTE:

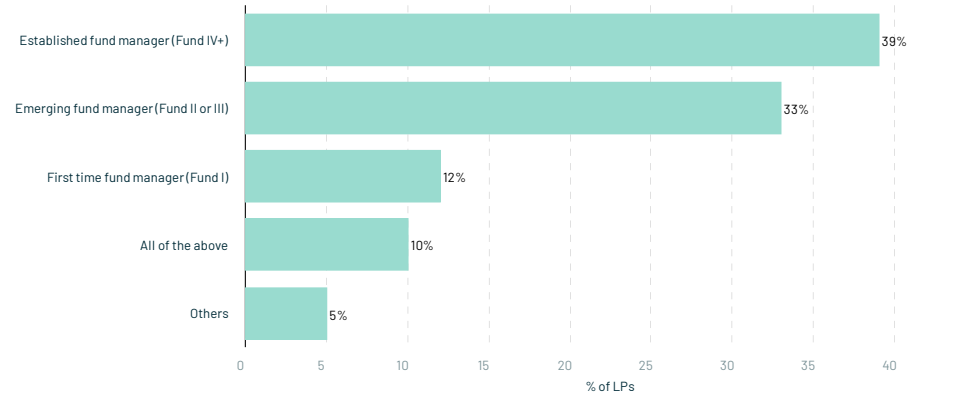
H1 2019 figures are preliminary. Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.



SOURCE: INVEST EUROPE

It is notoriously challenging to raise a fund as a first-time manager in Europe. One reason, among many, is the fact that most LPs are primarily focused on capital allocation to established or emerging managers, not first-time fund managers. It is not surprising that only a small proportion of LP respondents expressed a preference to support first-time fund managers over other, more established managers.

What type of fund managers do you normally invest in?



NOTE:
LP respondents only.

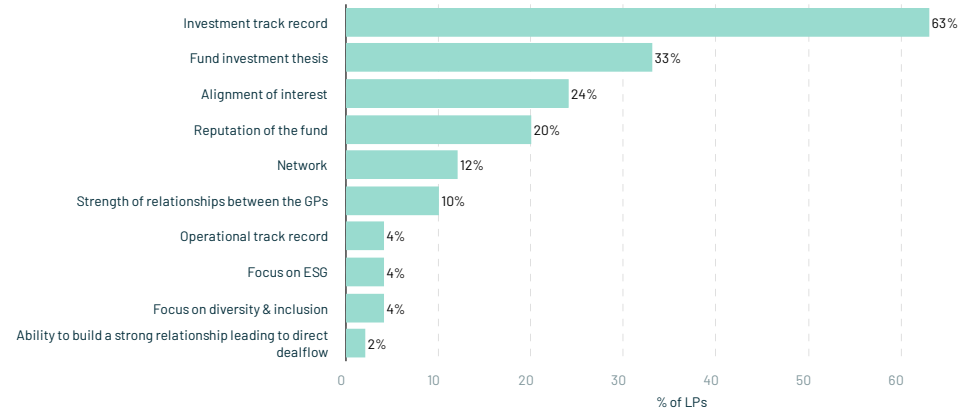
SOURCE: The State of European Tech Survey

> Raising the second fund has been easier in a number of ways. First of all, we have certainly seen a higher interest and appetite for the asset class as such, as even more conservative investors are anticipating strong returns in the sector. Moreover, we have been able to show that our investment strategy and our focus on transformative technology companies across a breadth of different sectors in B2B is playing out and is reflecting in a strong portfolio performance.

Jeannette zu Fürstenberg
La Famiglia
Founding Partner

Predictably, LPs cite track record as by far the most important consideration when evaluating a prospective general partner ('GP'). This is followed, by some distance, by the overall investment strategy of the fund. In part, this presents a chicken-and-egg problem for prospective first-time fund managers, knowing that the ability to demonstrate a strong track record is such an important factor in building traction with potential LPs.

What are the most important criteria when assessing a prospective GP?



NOTE:
LP respondents only. The responses to this question have been aggregated based on how respondents answered the following question: "What type of fund managers do you normally invest in?"

SOURCE: The State of European Tech Survey

While historical track record remains the most important measure when evaluating a GP, its ability to generate consistent returns in the future is what matters ultimately.

Maurizio Arrigo
Pictet Alternative Advisors
Head of Private Equity

While historical track record remains the most important measure when evaluating a GP, its ability to generate consistent returns in the future is what matters ultimately. In our views, performance is generated by investment teams that can work successfully over the long term. We aim to support the right team, with an appropriate fund size and a clear strategy to execute on. People are at the very center of our analysis and given the long term relationships that we aim to build, we like to see consistency in the core team complemented by a well-defined succession plan for the younger generation of up and coming investors.

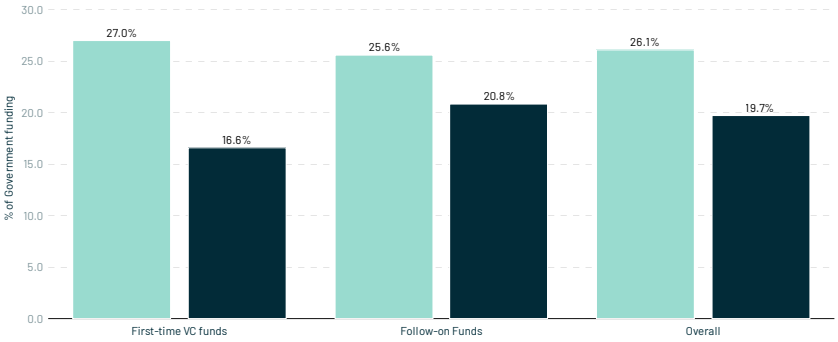
- Another way to measure the maturity of the European VC asset class is the share of funding from government agency sources. This percentage has historically been materially higher than that of the more mature US ecosystem, though lower than that in China. By this measure, there is clear evidence of material progress. Looking at total VC fundraising for more recent vintages (2018-2019), the share sourced from government agencies has declined to record lows of less than 20%. Interestingly, the decline has been even more pronounced for first-time funds than for follow-on funds.

Evolution of share of government funding in Europe (%), 2015-2017 versus 2018-2019

LEGEND
- 2015 to 2017
- 2018 to 2019

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. Excludes Unclassifieds.



SOURCE: INVEST EUROPE

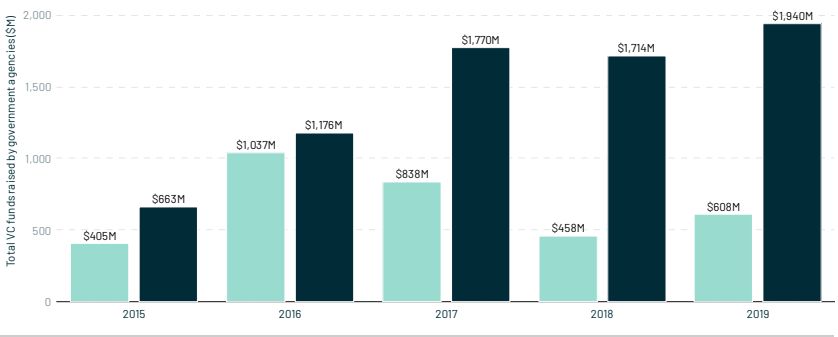
- In absolute terms, the total level of government agency funds invested into European VCs topped $2.5B for the first time in 2019, increasing from $1.1B in 2015. Interestingly, while government agencies have materially ramped their investment into follow-on funds, growing almost 3x between 2015 and 2019, the sums invested into first-time funds have not seen the same consistent expansion.

Evolution of government funding ($M)

LEGEND
- First-time VC funds
- Follow-on Funds

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.



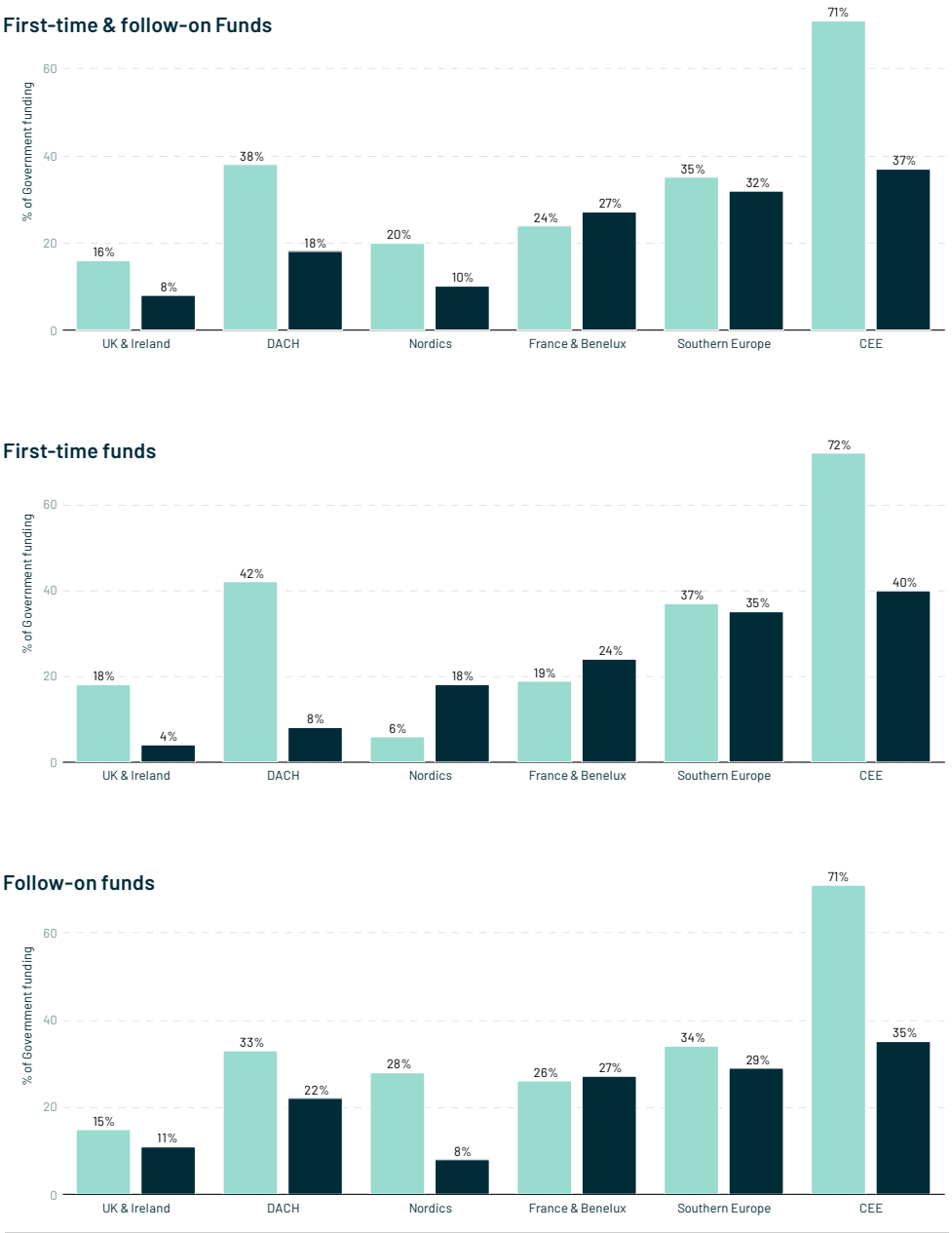
SOURCE: INVEST EUROPE

It can, of course, be a mistake to make assumptions about the overall ecosystem without first understanding the numbers at a more granular level. In this context, it's important to understand that the relative maturity of the venture capital asset class differs markedly at the country or sub-regional level. The UK, for example, is unquestionably the most mature European venture capital market. Not only is the level of 'dependency' on government agency funds much lower in places such as the UK (8%) and Nordic countries (10%), but the decline in the share of funds raised from these sources is also falling much faster than elsewhere. The decline in the DACH region, home to many of Europe's leading early-stage VCs, is also particularly pronounced. On the flip side, in the less mature corners of Europe - Southern Europe (32%) or the CEE (37%) - there is an understandably higher level of dependence. Nevertheless, the relative share of funding from government agencies is declining across the board, with the notable exception of France and the Benelux, where government institutions have been long-time and very active supporters of local VCs.

Evolution of share of government funding by region (%), 2015-2017 versus 2018-2019

LEGEND

- 2015 to 2017
- 2018 to 2019



NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. Excludes Unclassifieds.

SOURCE: INVEST EUROPE

What is growing increasingly clear is that sophisticated capital allocators are deploying into European VCs in record numbers, driving material shifts in the mix of sources of LP funding. This changing dynamic is helping to build an increasingly diversified LP stack for Europe and a robust foundation for the future of European venture capital as an asset class, given the long-term horizons over which these investors enter into relationships and allocate capital. Notably, the most recent available data shows a large, sustained and growing allocation of investment from pension funds, insurance companies, fund of funds, and endowments and foundations.

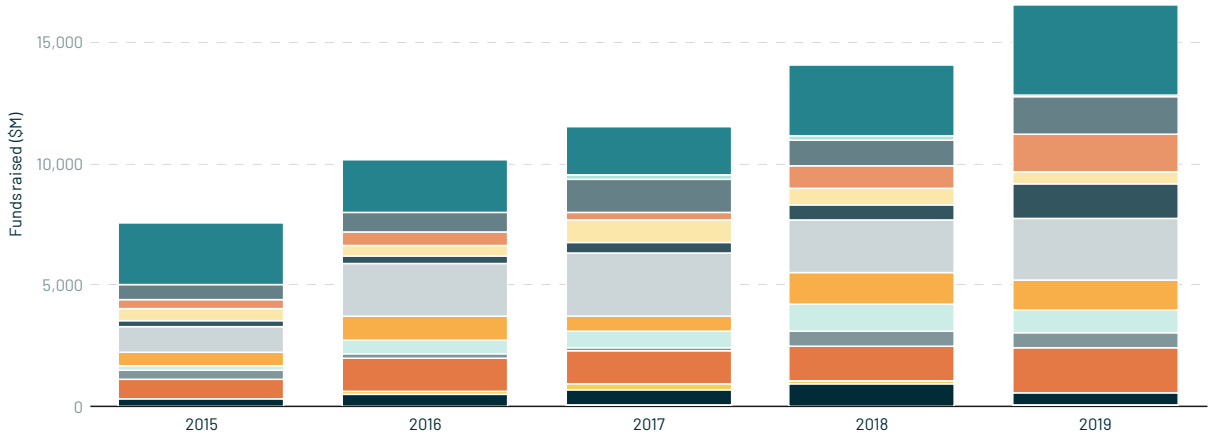
VC funds raised ($M) per year by LP type, 2015-2019

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.

LEGEND

- Academic institutions
- Banks
- Capital markets
- Corporate investors
- Endowments and foundations
- Family offices
- Fund of funds
- Government agencies
- Insurance companies
- Other asset managers (including PE houses other than fund of funds)
- Pension funds
- Private individuals
- Sovereign wealth funds
- Unclassifieds



SOURCE: INVEST EUROPE

The speed at which different types of LPs are ramping their commitments to European VC is reflected in the relative size of aggregate commitments in 2019 versus the trailing average of commitments over the four prior years. Looking at the data in this way gives a simplified view on which LP types are growing in relative terms versus the overall increase in funds raised, and those which are growing slower or declining in relative terms. Encouragingly, insurance companies, pension funds, and endowments and foundations made the greatest relative increase in their allocations to European VC.

VC FUNDS RAISED

$59B

VC funds raised over the past 5 years

SOURCE: INVEST EUROPE

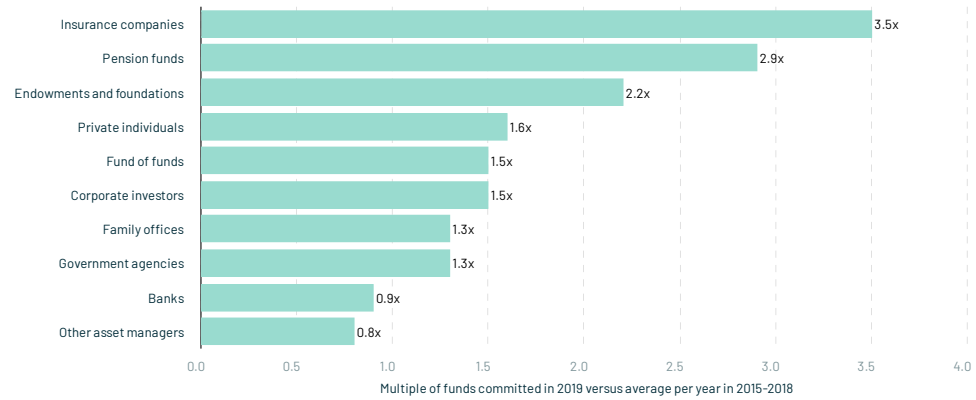
Funds committed to VC funds by LP type (multiple), 2019 versus average per year 2015-2018

LEGEND

- Multiple (2019 versus. average 2015-2018)

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. Excludes Unclassified.



SOURCE: INVEST EUROPE

While there is still some way to go before pension funds become the largest overall source of allocation to European VCs, the data would suggest that there is a realistic path to this happening if trends continue to evolve in line with recent years. In 2019, the most recent full year for which this granularity of data is available, pension funds continued to build their exposure with another record high commitment of $1.5B to European VCs. That being said, in 2019, for every dollar raised from a pension fund, European VCs on average raised around $1.65 from government agencies.

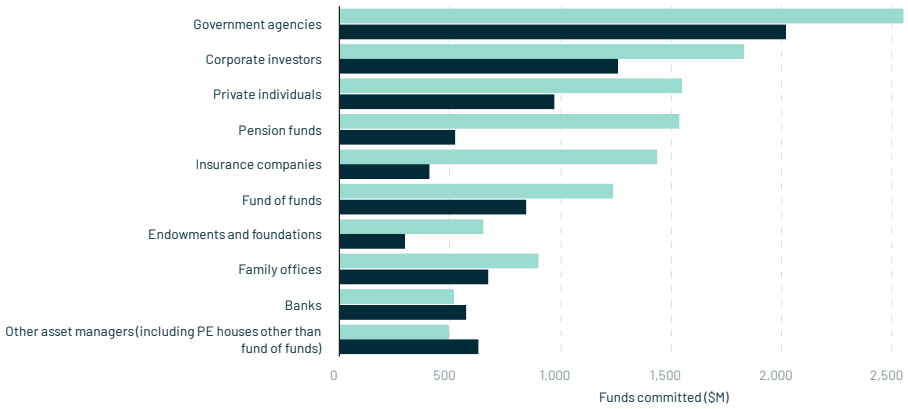
Funds committed ($M) to VC funds by LP type (>$500M), 2015-2018 versus 2019

LEGEND

- VC Funds raised 2019
- Average VC Funds raised 2015-2018

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. Excludes Unclassified. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.



SOURCE: INVEST EUROPE

There are large differences on a sub-regional level when it comes to the scale of VC fundraising. The UK, already Europe's largest and most important country in terms of VC fundraising, is on track for another record year in 2020. Six months into 2020, VC funds raised have already exceeded more than 80% of the total raised in either 2019 or 2018.

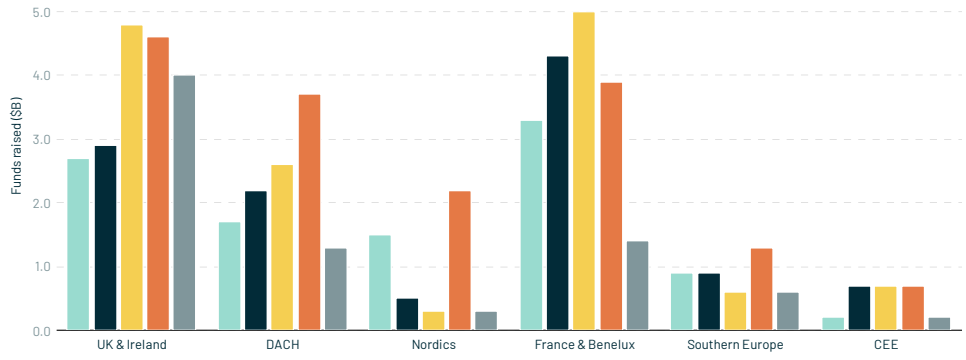
VC funds raised ($B) per year by GP region

LEGEND

- 2016
- 2017
- 2018
- 2019
- H1 2020

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.



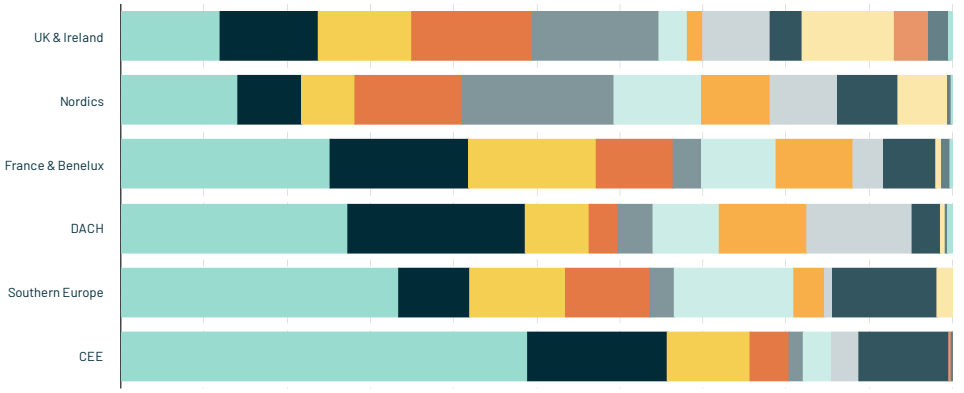
SOURCE: INVEST EUROPE

The mix of the source of VC funds raised by LP type varies greatly across Europe. The UK, as the most mature VC market, also has the most diversified set of LPs backing its GPs, including large shares of total funds raised coming from pension funds, funds of funds, and endowments and foundations. By contrast, the share of funding from corporate investors is higher as a percentage of total funds raised by GPs in the DACH region compared to any other region. The Nordics, as highlighted in earlier versions of this report, have the highest share of funds raised from pension funds in Europe. In fact, Nordic VCs raise a greater share of their funds from pension funds than from any other LP type, including government agencies.

VC funds raised ($M) by GP region and LP type, 2015 to 2019

LEGEND

- Government agencies
- Corporate investors
- Private individuals
- Fund of funds
- Pension funds
- Family offices
- Insurance companies
- Other asset managers
- Banks
- Endowments and foundations
- Capital markets
- Sovereign wealth funds
- Academic institutions



SOURCE: INVEST EUROPE

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.

Our positive view on the European VC landscape has been reinforced in recent years as we witnessed the emergence of a growing number of start-ups led by experienced entrepreneurs able to scale their business internationally. This is now confirmed from many angles by increased capital inflows and deal activity.

Xavier Coirbay
Sofina Group
Executive Committee

Sofina has been an investor in VC funds for more than 30 years. We remained focused on the leading US GPs for most of this period because the European venture ecosystem did not produce enough successful venture-backed companies despite the abundance of well-educated entrepreneurial talent. We were hoping for improvement and began to see the tide turning about five or six years ago. We invested in a selection of the best European VC firms where we found investment talent and processes comparable to our US benchmarks.

Our positive view on the European VC landscape has been reinforced in recent years as we witnessed the emergence of a growing number of start-ups led by experienced entrepreneurs able to scale their business internationally. This is now confirmed from many angles by increased capital inflows and deal activity. The size of financing rounds is growing and valuations are following the global rising trend. We also see more engagement from communities to support technology and innovation. It helps make start-up careers more visible and more attractive for young talented professionals. Another significant development is the renewed interest of leading US VC investors who are raising their game in Europe and building local teams to support their investment activity. Competition is heating up and the pandemic did not materially change the picture. We know that the VC industry will face cycles but we are confident in its long-term positive trend.

- European VC is overwhelmingly funded by European LPs, as clearly highlighted by analysing the source of funds raised by LP region. As the ecosystem has matured, the level of investment from LPs from outside Europe, in particular in the US, has increased. Nonetheless, as the near 50% drop in commitments between 2018 and 2019 demonstrates, there is still notable volatility. The long-run trend, however, is clearly trending positively in terms of securing LP allocation from outside the region.

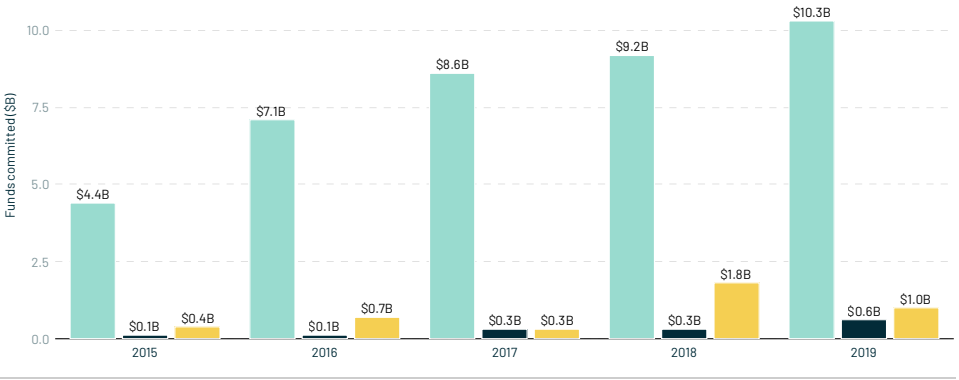
Funds committed ($B) to VC funds by LP region per year, 2015 to 2019

LEGEND

- Europe
- Asia & Australia
- North America

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.



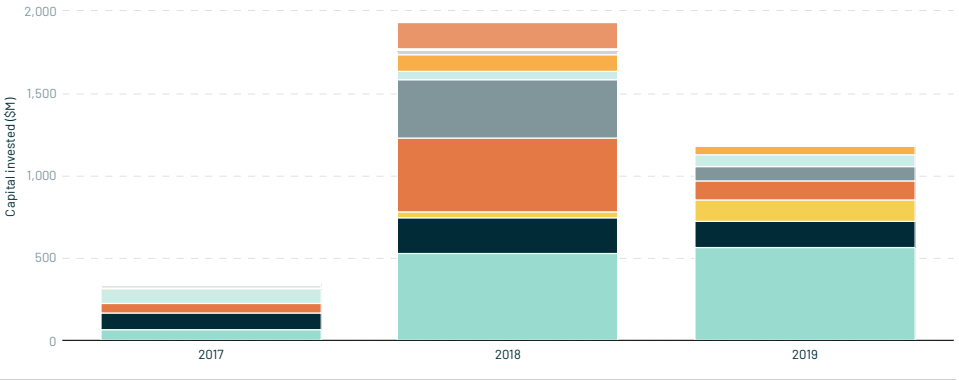
SOURCE: INVEST EUROPE

- Drilling down more granularly into the LP types driving investment from North America into the European VC asset class reveals that the decline in commitments in 2019 is primarily driven by lower investment from fund of funds, and endowments and foundations. North American pension funds, by contrast, are backing European VCs at record levels. The volatility in absolute amounts is likely explained by the fact that the timing of new fundraises by larger, established European VCs is still significant enough to drive a material impact from one vintage year to the next.

Capital invested ($M) by North American LPs by type

LEGEND

- Pension funds
- Corporate investors
- Insurance companies
- Endowments and foundations
- Fund of funds
- Other asset managers (including PE houses other than fund of funds)
- Family offices
- Private individuals
- Academic institutions
- Banks
- Sovereign wealth funds



SOURCE: INVEST EUROPE

It is always interesting to compare the scale of European VC to its sister asset class of Growth and Buyout. As one would expect, European buyout is a much larger asset class, with buyout funds typically raising in multiples of 5-6x more than European VCs. It is more noteworthy, however, to observe that European growth funds have not scaled in terms of funds raised at the same pace as the underlying European tech ecosystem, nor compared to European VCs that invest before them. While European VCs and buyout firms are on track to raise record sums in 2020, European growth funds look set to record the lowest total in recent years.

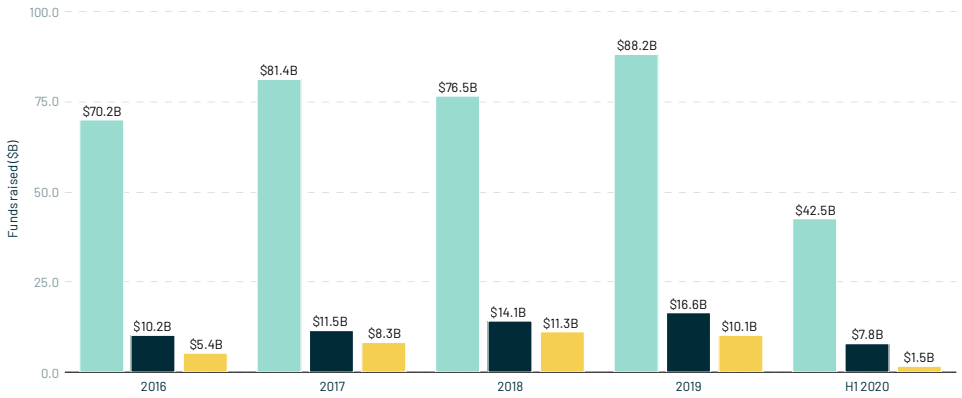
Funds raised ($B) by fund type per year

LEGEND

- Buyout funds
- VC funds
- Growth Funds

NOTE:

H1 2020 figures are preliminary. Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.1198, the rate on 30 June 2020.



SOURCE: INVEST EUROPE

Though the relative scale of European buyout funds is approximately 5-6x larger than European VCs, there is a much greater variance in the relative size of commitments from key LP types. As an example, pension funds have invested more than $112.3B cumulatively into European buyout funds between 2015 and 2019, but their commitments to European VCs total just $3.6B over that same period, a relative multiple of more than 31x. Multiple factors explain this gap, including misconceptions around European VC performance, risk appetite, as well as the perception of the difficulty of putting large sums of capital to work. These hurdles are slowly being eroded.

PENSION FUNDS ALLOCATION

31x

more capital committed to European Buyout funds than European VCs

SOURCE: INVEST EUROPE

Funds committed ($B) to VC and Buyout by LP type, 2015 to 2019

	VC Funds ($B)	Buyout Funds ($B)	VC as % of Total Commitments to European VC and Buyout funds	Multiple (Buyout/VC)
Pension funds	3.6	112.3	3.1%	31.2x
Fund of funds	4.6	42.9	9.7%	9.3x
Sovereign wealth funds	0.5	35.5	1.4%	71.0x
Insurance companies	3.1	33.5	8.5%	10.8x
Other asset managers (including PE houses other than fund of funds)	3.0	18.0	14.3%	6.0x
Top 5 total	14.8	242.2	5.8%	16.4x

SOURCE: INVEST EUROPE

To get a glimpse at how the geographic sources of LP capital might evolve as European venture capital continues to mature, it's interesting to compare the relative share of funds raised by European buyout firms by LP region. European buyout funds have succeeded in raising a far greater share of funds from North America and Asia compared to European VCs.

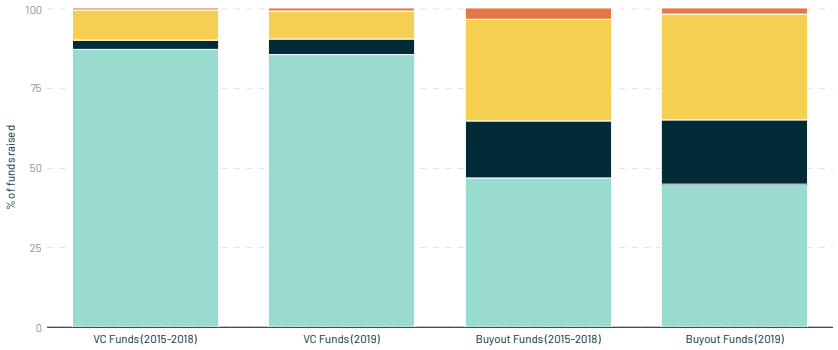
Funds raised by fund type and LP region, 2015-2018 versus 2019

LEGEND

- Europe
- Asia & Australia
- North America
- Rest of the World

NOTE:

Taken from the European Data Cooperative, developed by Invest Europe. Excludes Unclassified. Total may not sum to 100% due to rounding.



SOURCE: INVEST EUROPE

When all is said and done, European venture capital as an asset class is judged on its performance. In this regard, European venture capital continues to make huge progress. According to the latest benchmarks from Cambridge Associates, European venture capital now outperforms all of its key comparables on a one, three, five and 10-year horizon. Not only that, but the spread has increased versus US venture capital and also European private equity. The relative returns versus a European public market index are also stark. European venture capital continues to prove it can be a highly attractive asset class for capital allocators to build exposure. That is if they can access the right managers, given the concentration of the greatest returns in a small number of outperforming managers.

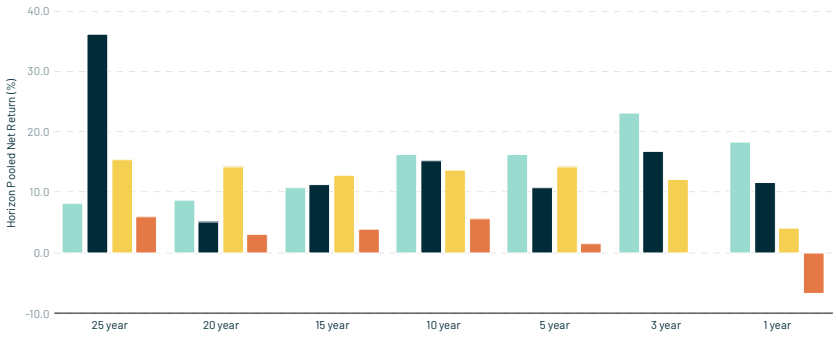
Horizon pooled return (net) by fund index, June 2020

LEGEND

- Europe Developed Venture Capital Index
- Cambridge Associates US Venture Capital Index
- Europe Developed Private Equity Index
- MSCI Europe Index

NOTE:

Data is as of 30 June 2020.



SOURCE: CA CAMBRIDGE ASSOCIATES

The development of Covid-19 has also demonstrated the resilience and overall belief in the market, and its attractiveness for investors as a long-term investment opportunity.

Andreas Thors
Partners Group
Industry Value Creation

The European market has matured considerably over the past years. The region today has several leading global VCs but a new generation of funds have also sprung to life, also thanks to a larger pool of former entrepreneurs. Ecosystems have therefore multiplied in depth and across geographies and selection wise, LPs are today met with a much higher level of sophistication. As the overall ecosystem has developed, GPs have also become bolder and held on to companies much longer and by doing so, they have supported founders longer throughout their journey – leading to great outcomes for all parties involved. The development of Covid-19 has also demonstrated the resilience and overall belief in the market, and its attractiveness for investors as a long-term investment opportunity.

03.2

Investors

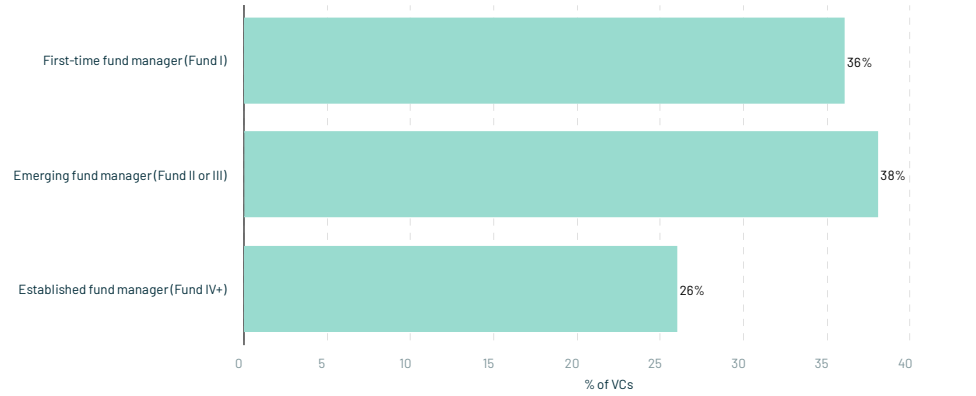
Venture Capitalist Profiles

Over 400 venture capitalists ('VCs') responded to the survey this year and shared their perspective on the underlying dynamics of the market as well as their experience since the start of the pandemic.

This first section provides an overview of the VCs that took part in the survey, segmented by their latest closed fund size, their preferred investment stage and their firm's journey to date.

- The respondent base is fairly evenly distributed across funds at different stages in their journey.

What best defines your VC firm?



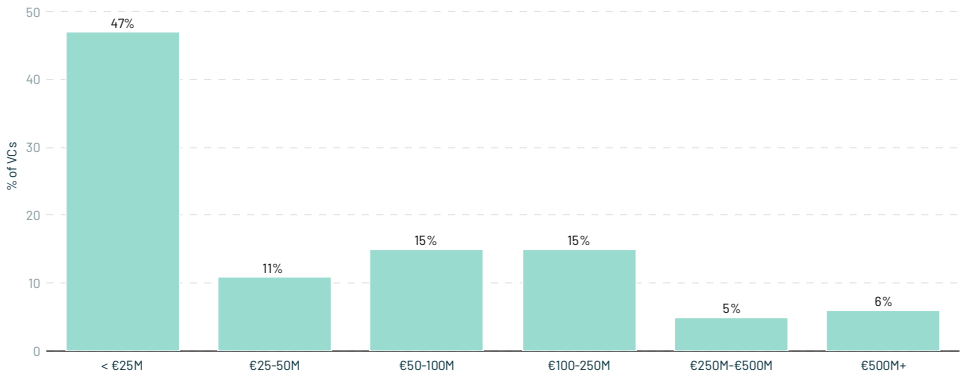
NOTE:

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

SOURCE: The State of European Tech Survey

- In terms of fund size, close to 50% had their latest fund sized below €25M, 25% between €25-100M and 25% above €100M.

What is the size of your last fund (€M)?



NOTE:

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

SOURCE: The State of European Tech Survey

Survey respondents at first-time funds are most likely to be focused on Seed as their preferred stage of investment, followed by Series A. This is also true of emerging fund managers. More established fund managers that have gained experience and built institutional knowledge over multiple funds are much more likely to be focused on Series A and beyond stages of investment.

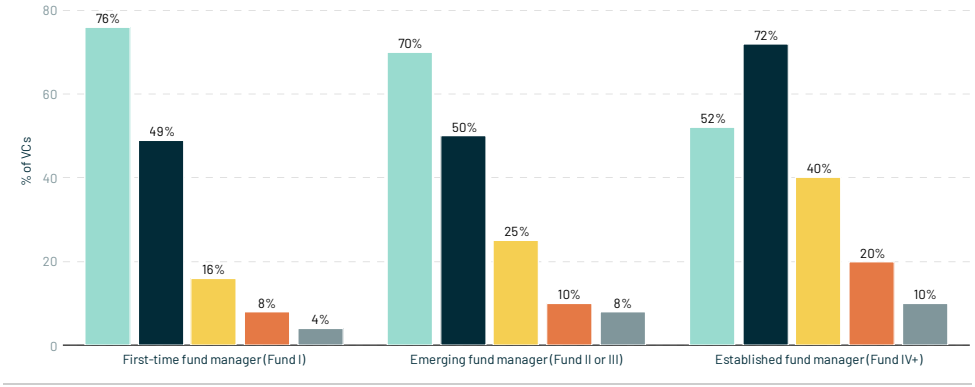
What is your preferred stage of investment?

LEGEND

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

NOTE:

VC respondents only. Numbers do not add to 100 as respondents could select as there was no limit on the number of options selected.



SOURCE: The State of European Tech Survey

The question of focus is one that is often asked of VCs. Do you take a focused, narrow view on your target entry zone, or are you more agnostic? The survey results outline how Europe's venture capital landscape is composed of both stage specialists and multi-stage agnostic funds. Just over one in three respondents indicated a single preferred stage of entry, while 42% stated a preference across two stages. When drilling down deeper into those results, the two most commonly cited dual-stage preferences are for Pre-Seed/Seed and Seed/Series A, which accounted for 84% of investors with a dual-stage preference. 21% of respondents stated a preference across three stages, while 4% stated that they are stage-agnostic and open to investment across all stages.

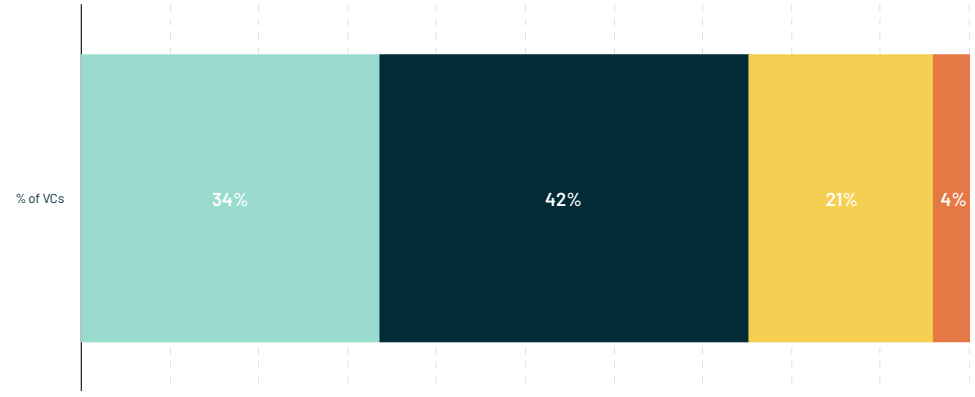
How many preferred stages of investment do you have?

LEGEND

- One stage
- Two stages
- Three stages
- Stage agnostic

NOTE:

VC respondents only.



SOURCE: The State of European Tech Survey

The recycling of entrepreneurial and operator talent is a well-known accelerator of the flywheel that drives value creation and positively transforms the mindset of the best talent within start-up communities. The recycling of investor talent is also an important component in helping to broaden and deepen the pool of investors ready to back new generations of founders. As the European ecosystem matures, it's now increasingly evident that this important component of the European tech flywheel (hyperlink to flywheel imagine) is also spinning faster and faster - to the benefit of founders and LPs all across Europe.

New European VC funds founded by alumni of other funds

SOURCE: atomico

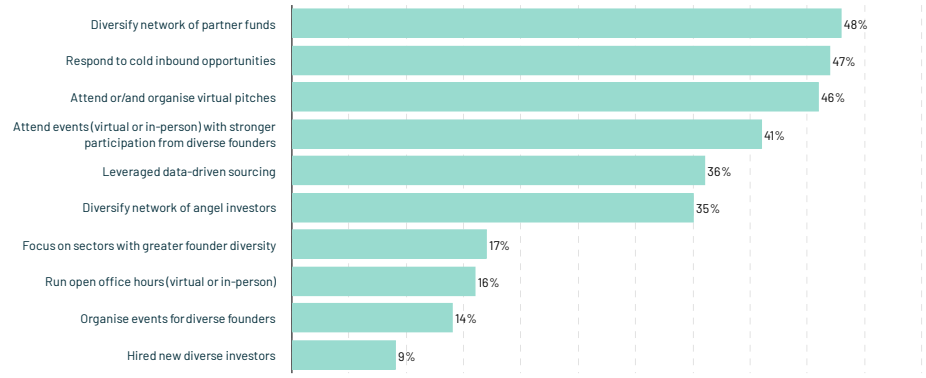
VC Fund Strategy

Similar to founders, VCs had to adapt quickly to the pandemic. From sourcing investment opportunities to evaluating deals, investors had to rethink and reshape their internal processes.

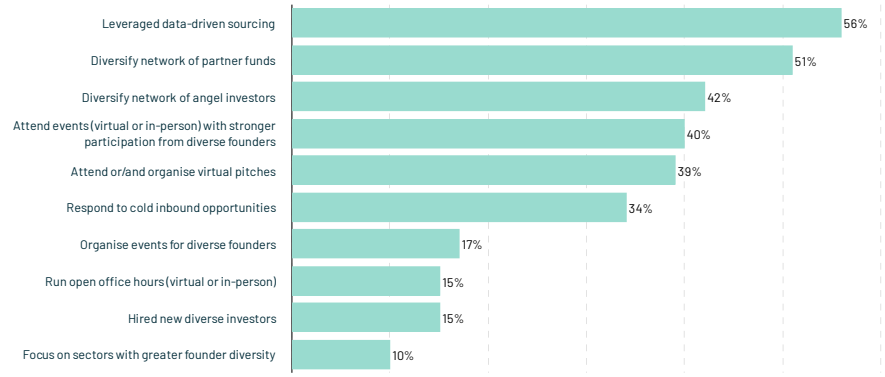
- There are some interesting differences between fund managers. On the one hand, first-time fund managers have prioritised diversifying their network as well as responding to cold inbounds. On the other hand, established fund managers have both focused on leveraging data-driven sourcing. Meanwhile, initiatives to foster a more diverse pipeline of founders were pushed into the background.

In the last 12 months, which strategies, if any, have you prioritised to source new investment opportunities?

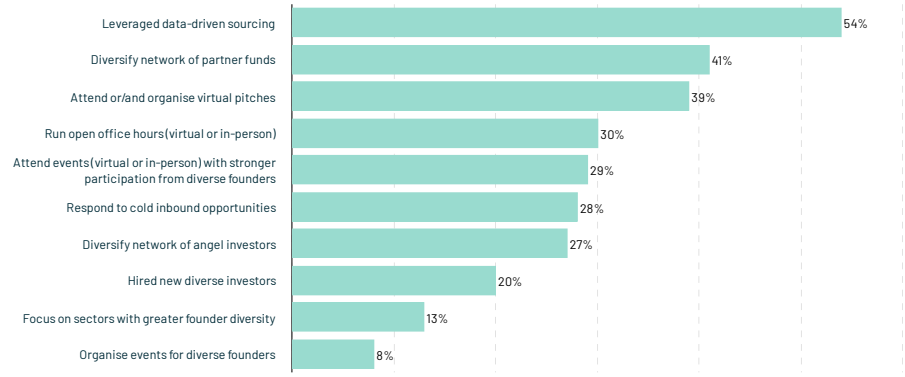
First-time fund manager (fund I)



Emerging fund manager (fund II or III)



Established fund manager (fund IV+)



NOTE:

VC respondents only. Numbers do not add to 100 as respondents could select as there was no limit on the number of options selected.

SOURCE: The State of European Tech Survey

- The vast majority of investors across all fund sizes have stayed consistent in their preferred investment stage of entry, but it is interesting to note that around 20% of investors stated that they have started to become more active at earlier stages since the onset of the Covid-19 pandemic - a change that was stated consistently across fund managers of all fund size cohorts.

Since the start of the Covid-19 pandemic, has your fund seen any change of focus on the stage of entry?

LEGEND

- More active at earlier stages
- More active at later stages

NOTE:

VC respondents only.

SOURCE: The State of European Tech Survey

- Despite the period of uncertainty caused by the pandemic, it is important to note the resilience of VCs. Very few have made a change to their deployment target since the start of the pandemic.

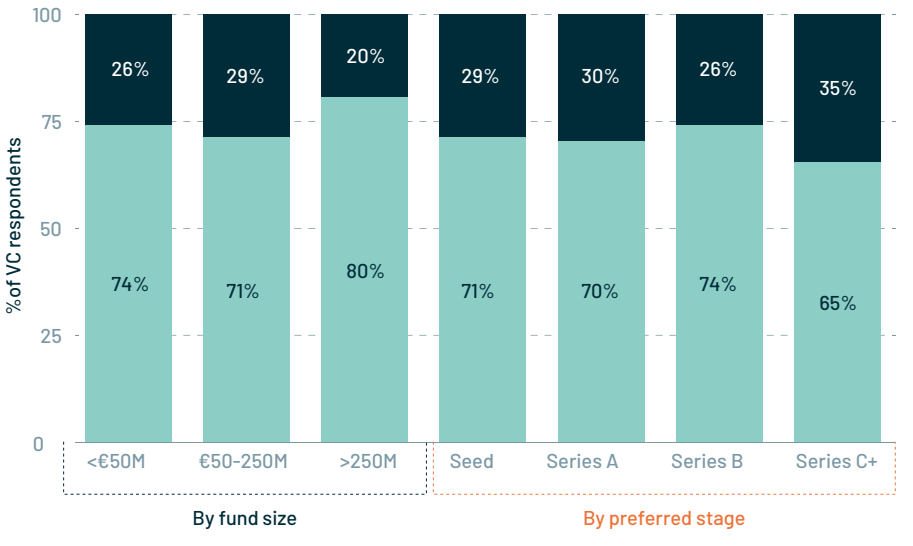
Since the start of the Covid-19 pandemic, has your fund revised the number of new investments made compared to your deployment target?

LEGEND

- No Change
- Change

NOTE:

VC respondents only.



SOURCE: The State of European Tech Survey

- Of the 30% who revised their deployment pace, most have decided to make fewer investments. When looking at investors split by their preferred stage of investment, it is interesting to see a higher proportion of those playing at the earliest and latest stages making more investments.

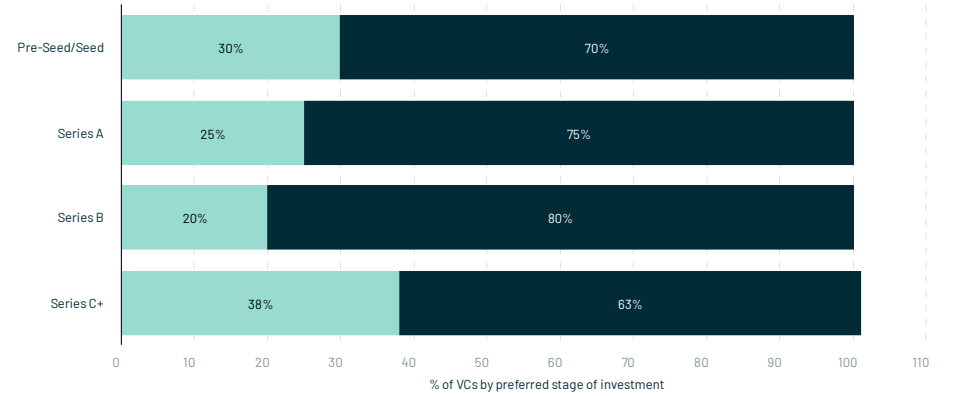
Since the start of the Covid-19 pandemic, how did your fund revise the number of new investments made compared to your deployment target?

LEGEND

- More investments
- Less investments

NOTE:

VC respondents only. Includes only the respondents who have revised their number of new investments.



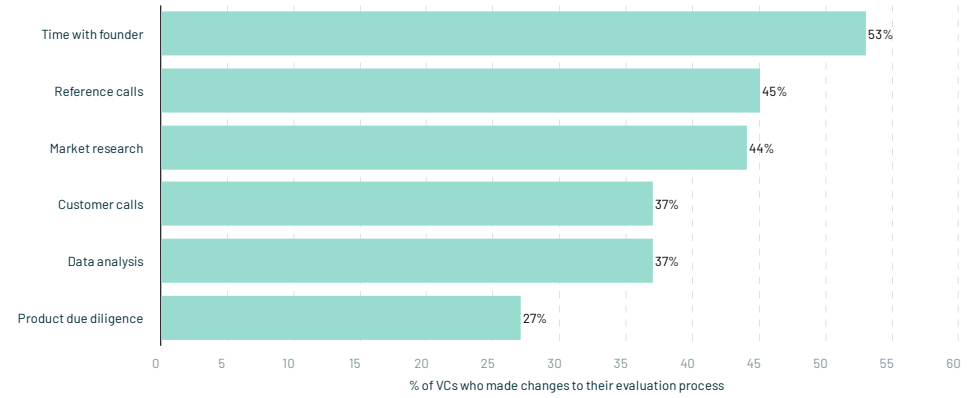
SOURCE: The State of European Tech Survey

- Despite the enforced change in circumstances as a result of the lockdown measures imposed across Europe during 2020, close to 25% of respondents stated that they had made "no changes" to their evaluation process for new investment opportunities in the last 12 months. Looking at the remaining 77% of VCs, the most frequently cited areas where VCs have spent more time when evaluating new investment opportunities are spending more time with the founder(s), followed by referencing.

In the last 12 months, which areas, if any, have you been spending more time on when evaluating new investment opportunities?

NOTE:

VC respondents only. Numbers do not add to 100 as respondents could select as there was no limit on the number of options selected. Excludes respondents who selected "no changes made".



SOURCE: The State of European Tech Survey

As companies mature through their funding journey, the risk underwritten by investors changes as well. It is, therefore, interesting to note the differences in the due diligence process based on an investor's' stated preferred stage of investment. There is a clear divergence between earlier and later-stage investors on how they've chosen to adapt their process. The differences are intuitive: Pre-Seed, Seed and Series A investors stated a shift to spending more time getting to know founders, while investors at Series C and beyond were most likely to have shifted to spend more time in due diligence on data analysis and reference calls.

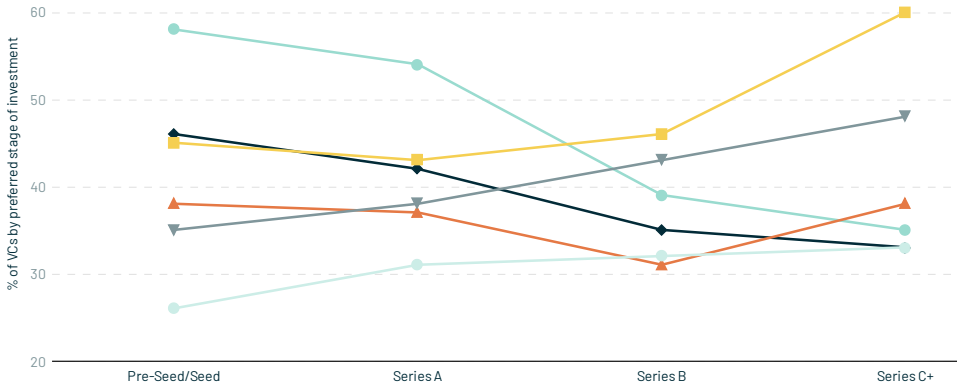
In the last 12 months, which areas, if any, have you been spending more time on when evaluating new investment opportunities?

LEGEND

- Time with founder
- Market research
- Reference calls
- Customer calls
- Data analysis
- Product due diligence

NOTE:

VC respondents only. Numbers do not add to 100 as respondents could select as there was no limit on the number of options selected. Excludes respondents who selected "no changes made".



SOURCE: The State of European Tech Survey

At the start of the pandemic, investors focused on their portfolio of existing investments to help founders weather the storm and manage their runway. It is interesting to see that one in four investors has seen their fund revise their follow-on allocation. For investors at Series C and beyond, close to 40% have made changes to their follow-on reserve allocations.

FOLLOW-ON INVESTMENTS

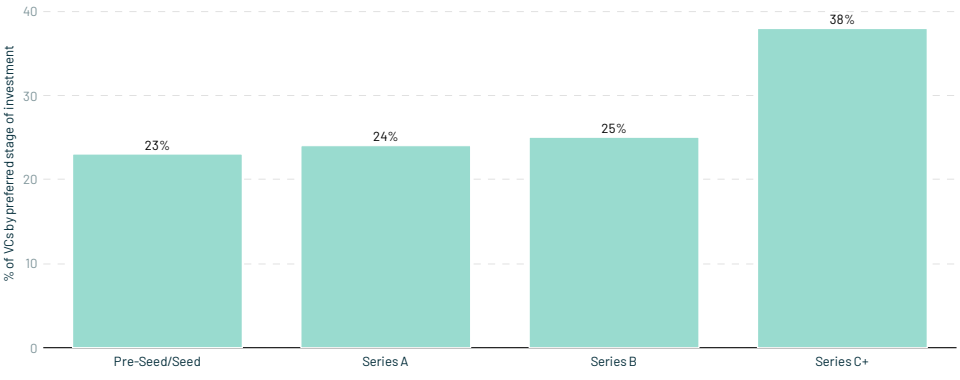
40%

of Series C+ investors made changes to their follow-on reserve allocations

Since the start of the Covid-19 pandemic, has your fund revised upward its allocation for follow-on investments?

NOTE:

VC respondents only. Numbers do not add to 100 as we are looking at investors by preferred stage of investment and some respondents selected more than one.



SOURCE: The State of European Tech Survey

- This is also visible in the data for 2020 already - with a larger share of capital invested in follow-on financing. The same is also true on a deal count basis.

Share of capital invested and deal count (%) by type of financing

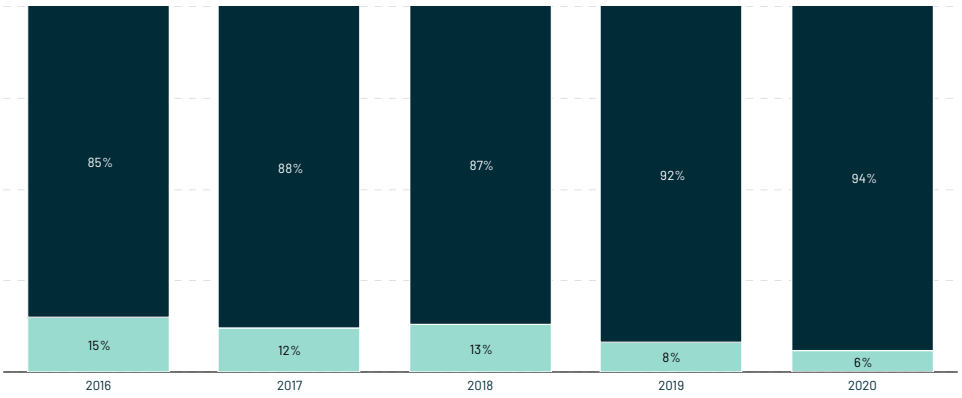
LEGEND

- Initial investment
- Follow-on investment

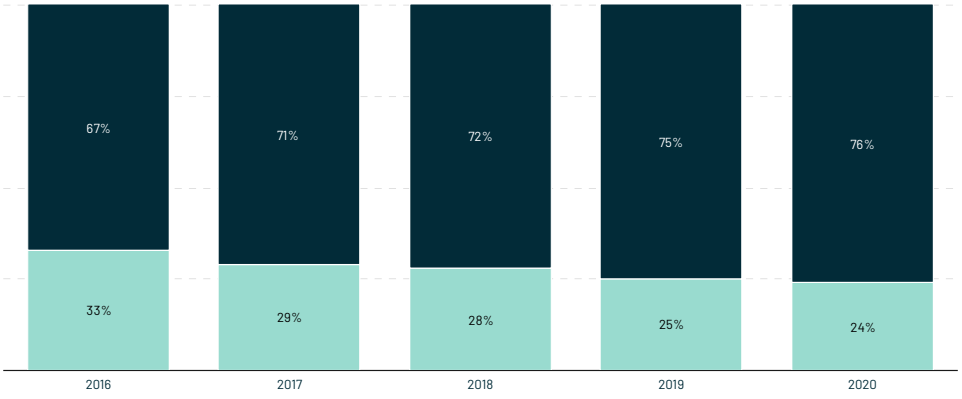
NOTE:

2020 data as of 31 October 2020.

Capital invested



deal count



SOURCE: PitchBook

- The inherent differences in approaches to portfolio construction and risk/return profiles of investors at different stages are reflected in the varying levels of sensitivity to entry ownership targets. Later-stage investors are, perhaps intuitively, much less likely to have stated ownership targets versus those investing at the earliest stages. Just 13% of Pre-Seed/Seed investors stated that they do not have specific ownership targets versus 33% of investors with a preferred stage of entry at Series C and beyond.

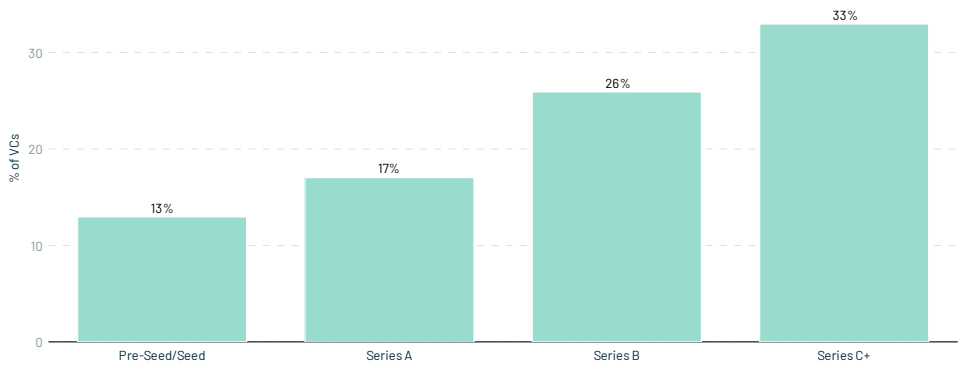
Since the start of the Covid-19 pandemic, has your fund revised ownership targets?

LEGEND

- We don't have specific ownership targets

NOTE:

VC respondents only.



SOURCE: The State of European Tech Survey

- Although most investors have not made any changes to their target since the start of the pandemic, Pre-Seed/Seed investors were more likely to push for more ownership than others.

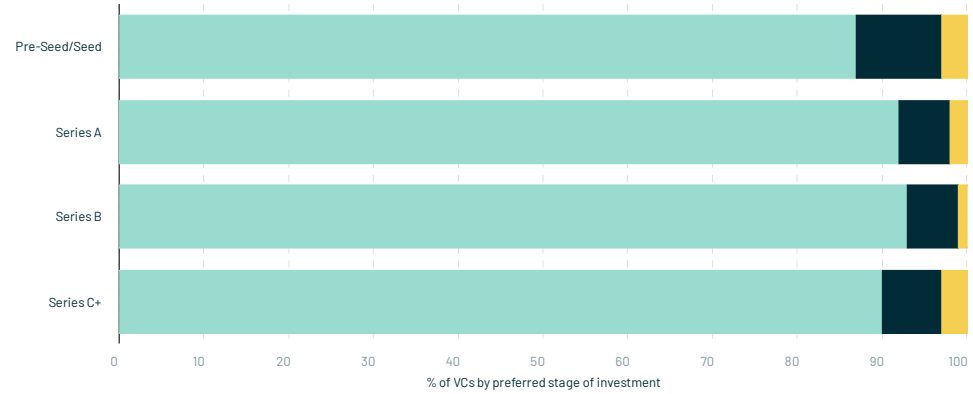
Since the start of the Covid-19 pandemic, has your fund revised ownership targets?

LEGEND

- Unchanged
- Up
- Down

NOTE:

VC respondents only. Excluding respondents who don't have ownership targets.



SOURCE: The State of European Tech Survey

- On the other hand, first-time fund managers have been more likely to lower their ownership requirements.

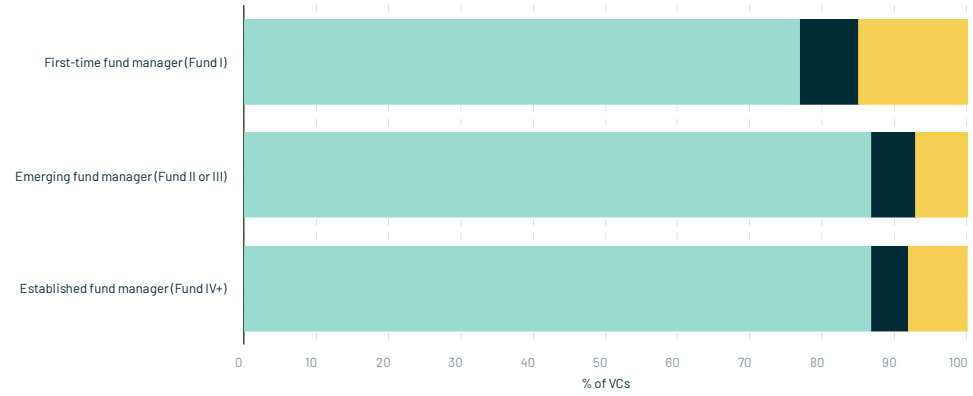
Since the start of the Covid-19 pandemic, has your fund revised the first cheque size?

LEGEND

- Unchanged
- Up
- Down

NOTE:

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

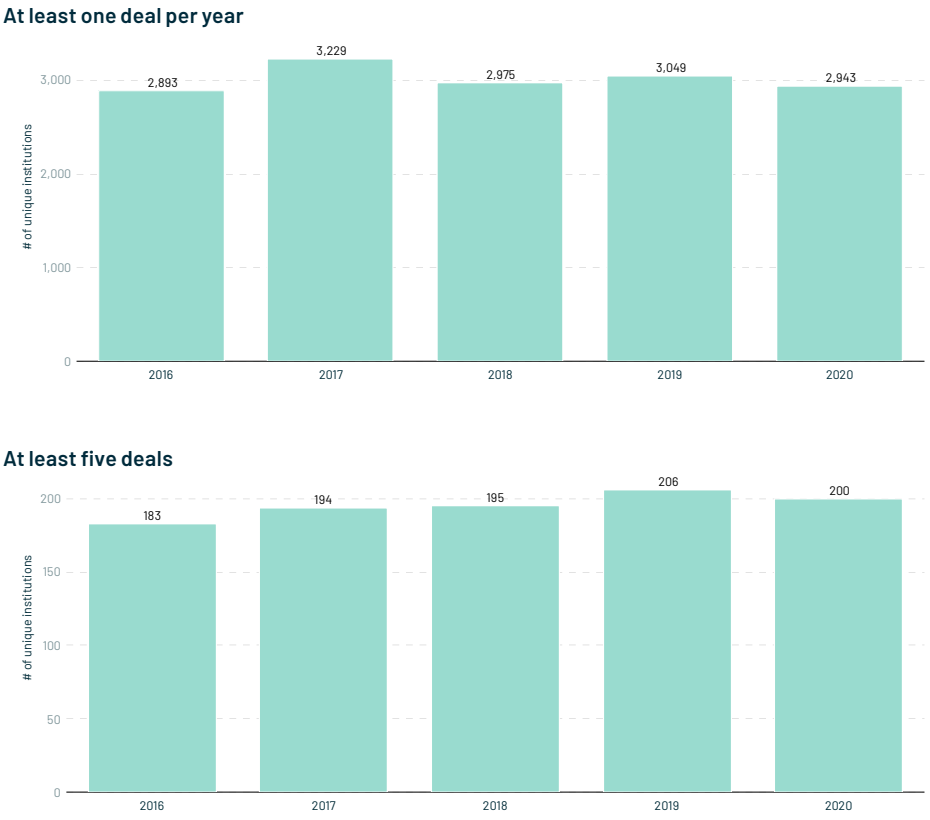


SOURCE: The State of European Tech Survey

Competition and Market Dynamics

- One driver of increased competition continues to be the rising number of active investors deploying capital into European tech. Europe benefits from a deep and active pool of about 3,000 investors making at least one investment per year. The pool of more active investors making at least five new investments per year has also grown to more than 200 unique institutions. The delta between the scale of the two investor cohorts based on level of activity is noteworthy. While there are many sources of capital that are placing a small number of bets, the number of funds investing at a reasonable scale on a consistent basis is far smaller.

Number of unique institutions that have participated in at least one and five investment deals in Europe per year



NOTE:

Number of unique investors (incl. investment funds, corporate investors & accelerators, but excl. angel investors) that have participated in at least one investment round per year. 2020 is annualised based on data to September 2020.

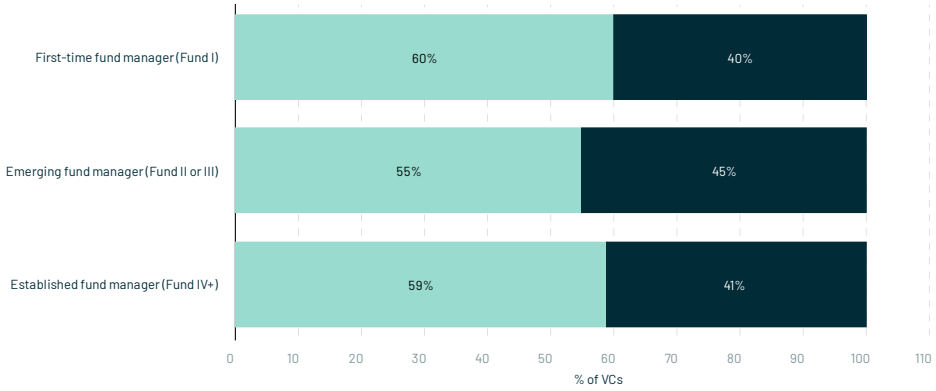
SOURCE: dealroom.co

- A small, but clear majority of fund managers from firms of all types (first-time, emerging, established) stated that the Covid-19 pandemic has altered the competitive landscape for new investment opportunities at their preferred stage of entry.

How has competition for investment opportunities at your stage of entry changed with the Covid-19 pandemic?

LEGEND

- Changed
- Unchanged



NOTE:

VC respondents only.

SOURCE: The State of European Tech Survey

It's fascinating to note that the pinch in terms of increased competition is more likely to have been felt by investor respondents from established fund managers. It is not possible to ascertain from the survey data, but it would be reasonable to infer that competition has heated up in certain parts of the market only, in other words around certain types of founders and companies.

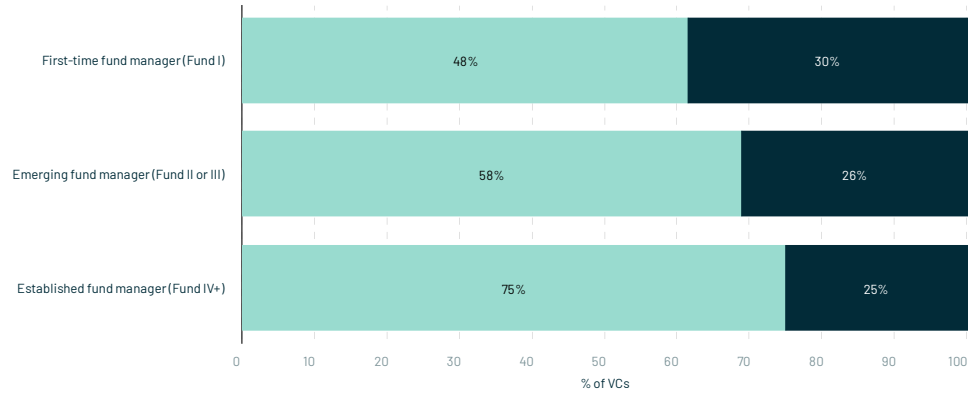
How has competition for investment opportunities at your stage of entry changed with the Covid-19 pandemic?

LEGEND

- More competitive
- Less competitive

NOTE:

VC respondents only.



SOURCE: The State of European Tech Survey

What is also very interesting to note is how much variance exists between respondents from different countries. Based on the survey responses, it would appear that an increase in competition has played out more significantly in the UK and Germany compared to other markets, such as Spain or the Netherlands.

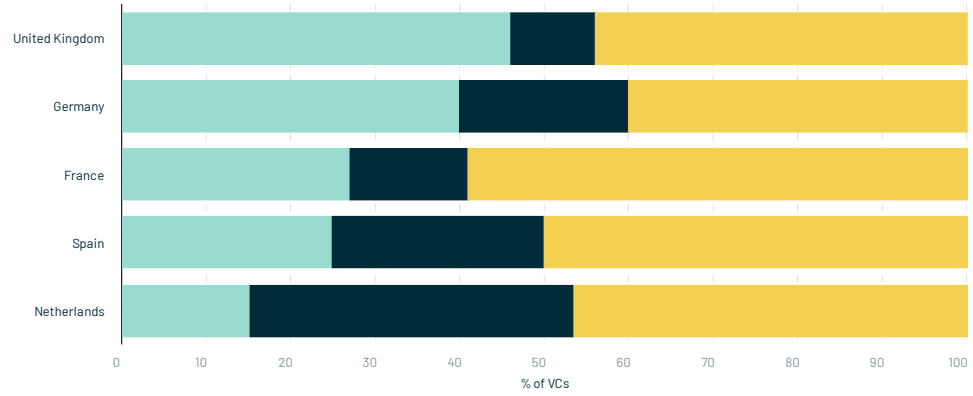
How has competition for investment opportunities at your stage of entry changed with the Covid-19 pandemic?

LEGEND

- Up
- Down
- Unchanged

NOTE:

VC respondents only.



SOURCE: The State of European Tech Survey

Slicing the data based on an investor's preferred stage of investment also yields interesting results. While a majority of investors from all cohorts based on stage of entry preference stated they had observed changes in the competition at their stage sweet spot, investors at the later-stages of Series C and beyond were materially more likely to have done so.

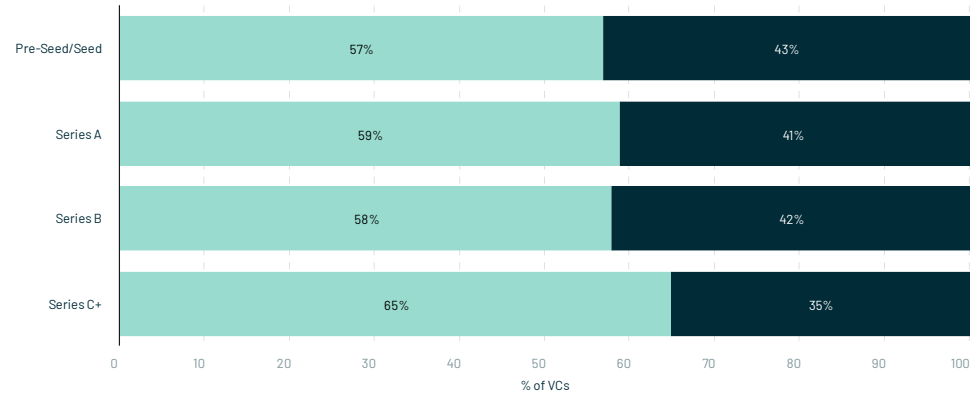
How has competition for investment opportunities at your stage of entry changed with the Covid-19 pandemic?

LEGEND

- Changed
- Unchanged

NOTE:

VC respondents only.



SOURCE: The State of European Tech Survey

And looking at those that saw a change in the competitive landscape at another level of detail reveals that the perceived change is most likely to be one of increased competition. That being said, it's still notable that a large number of investors stated a view that the competitive dynamics had become less competitive. It makes sense that stage, geography, company type and other factors all influence the level of competition.

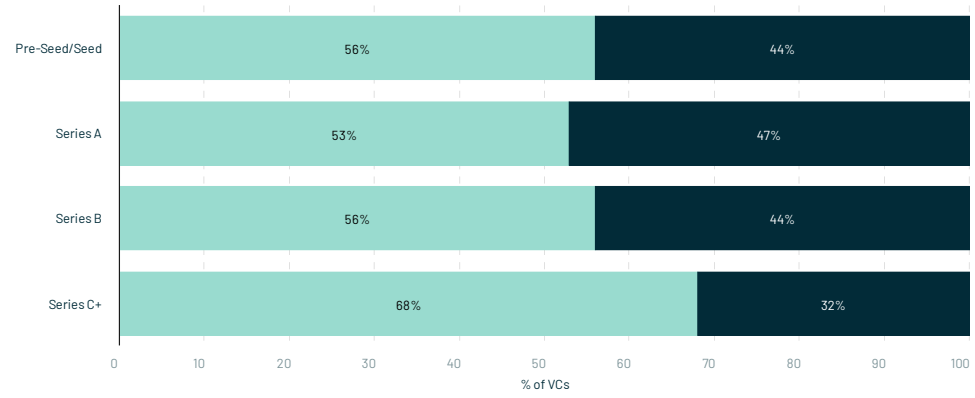
How has competition for investment opportunities at your stage of entry changed with the Covid-19 pandemic?

LEGEND

- More competitive
- Less competitive

NOTE:

VC respondents only.



SOURCE: The State of European Tech Survey

The European investor base has been growing in absolute terms across all stages of investment and round sizes over the past five years. But importantly, for a region that has lacked depth at the later stages of investment. Europe is now seeing the maturity of the ecosystem through a growing pool of investors capable of leading larger growth rounds.

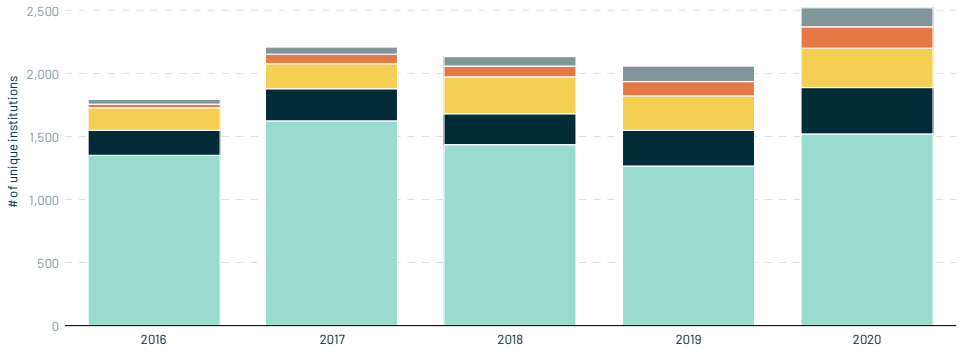
Number of unique institutions by round size and by year

LEGEND

- $0-$10m
- $10-$20m
- $20-$50m
- $50-$100m
- $100m+

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is annualised based on data up to September 2020.



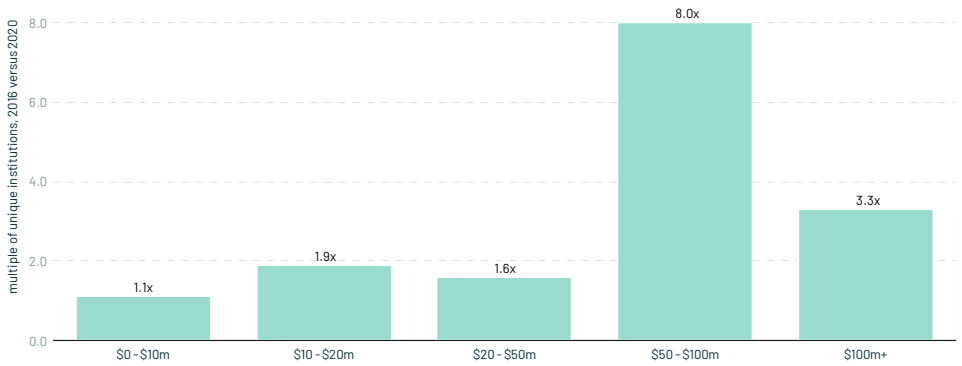
SOURCE: dealroom.co

Indeed, there has been an influx of investors to these later stages. Compared to 2016, there have been 3.3x as many investors active in rounds of $100M+ during 2020 and a remarkable 8x as many investors active in rounds of between $50-100M. This compares to an increase of 1.1x in the number of investors of rounds of less than $10M.

Number of unique institutions (multiple) by round size and by year, 2016 versus 2020

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, grants. Please also note the data excludes Israel. 2020 annualised based on data up to September 2020.



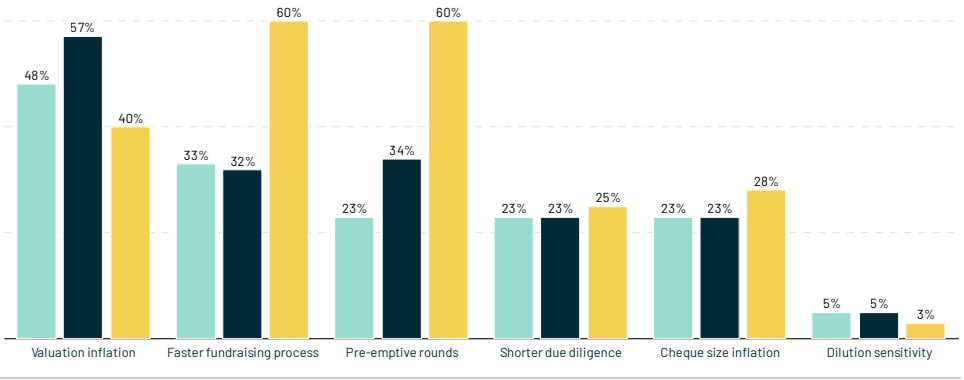
SOURCE: dealroom.co

- According to VC respondents that stated they had experienced an increase in competition, the main consequences stated by the largest number of fund managers has been valuation inflation. Looking specifically at respondents from established fund managers, their responses indicated that the main impact of increased competition has been a shortening of the fundraising processes and an increase in pre-emptive rounds in market, though these respondents also frequently cited valuation inflation too.

What do you think has been the main impact of increased competition on current market dynamics?

LEGEND

- First-time fund manager (Fund I)
- Emerging fund manager (Fund II or III)
- Established fund manager (Fund IV+)



NOTE:

VC Respondents only.

SOURCE: The State of European Tech Survey

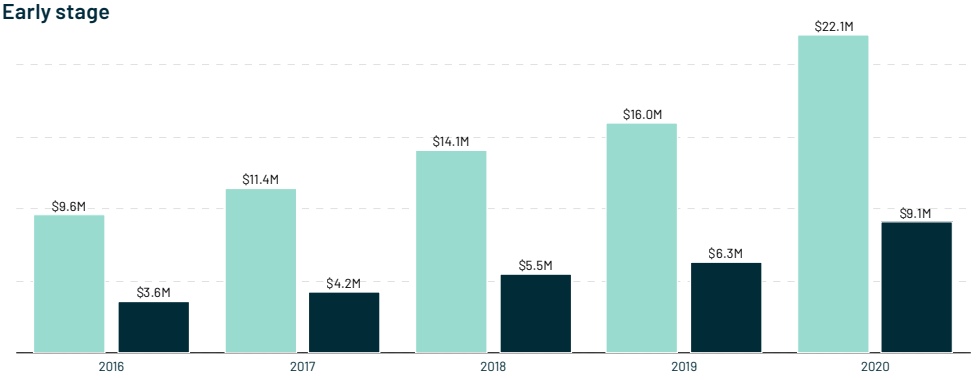
- The perceived increase in valuations is reflected in the actual data. According to data from Pitchbook, valuations have been increasing in Europe consistently over the past years across both early and later stages and now stand at record highs in 2020.

European pre-money valuation ($M) by stage and by year

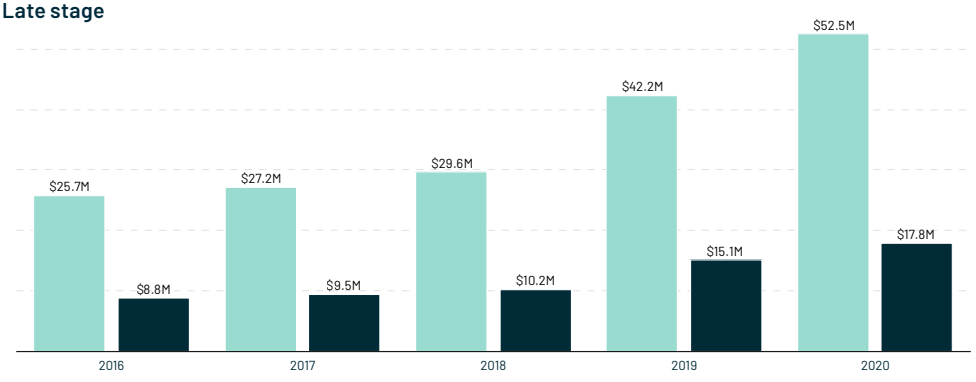
LEGEND

- 75th percentile
- Median

Early stage



Late stage



NOTE:

2020 data as of 31 October 2021. Data converted at EUR:USD of 1:1.16775, the rate on 31 October 2020.

SOURCE: PitchBook

Last year, the survey posed questions around the evolution of the underlying market dynamics and VCs overwhelmingly agreed with the rise in competition between local VCs as well as with top tier US VCs. This year, the survey returns to this question, but posed it to founders. The arrival of US investors on European shores has certainly not gone unnoticed; 57% of all founders agreed that US VCs seem to have been more active in Europe over the past 12 months.

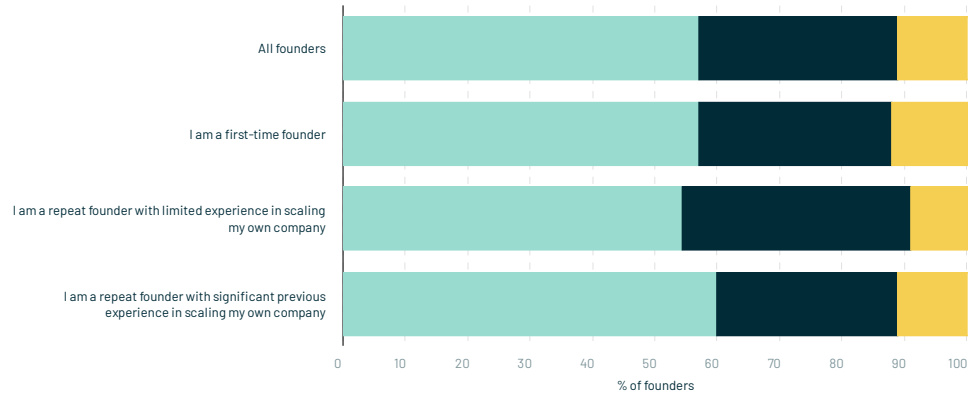
Thinking speci cally about the past 12 months, to what extent do you agree or disagree with the following statement: US VCs seem to be more active in Europe

LEGEND

- Agree
- Neither
- Disagree

NOTE:

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



SOURCE: The State of European Tech Survey

> **I've seen a complete 180 when it comes to [US investors'] attitude. As long as founders have a global mindset, they actively are looking to invest in Europe. Besides: on Zoom, nobody knows you're a European.**

Robert Gaal
Cooper
Co-Founder

Europeans are still too locally focused. Launching a company focused on just one European country is sure to make you vulnerable to your US competitor. This was as true for social networks a decade ago as it is for delivery or mobility startups today. I'd encourage all European startups to think globally from day one. I've raised money in the US in 2008 and in 2018, while being based in Europe. I've seen a complete 180 when it comes to [US investors'] attitude. As long as founders have a global mindset, they actively are looking to invest in Europe. Besides: on Zoom, nobody knows you're a European.

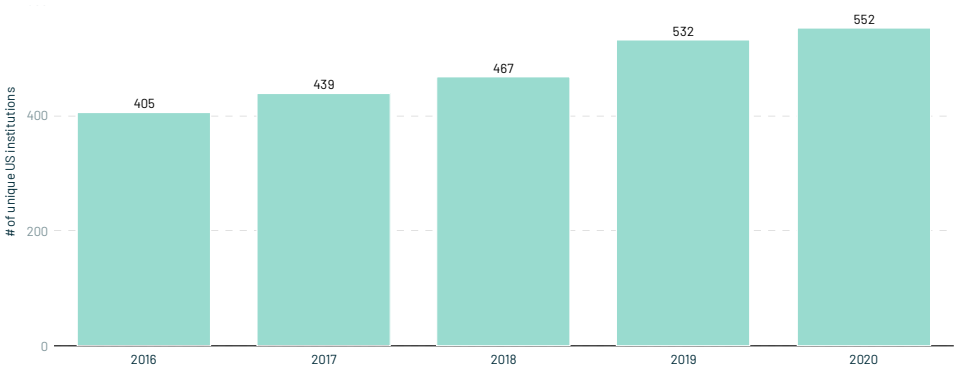
Slush 2019
Photo by: Julius Konttinen

- Again, this is supported by data. A record number of US institutions, more than 550, have participated in at least one investment round in Europe in 2020. This has increased by 36% since 2016.

Number of unique US institutions that have participated in at least one investment round in Europe per year

NOTE:

Number of unique investors (including investment funds, corporate investors and accelerators, but excluding angel investors) that have participated in at least one investment round per year. 2020 is annualised based on data to September 2020.



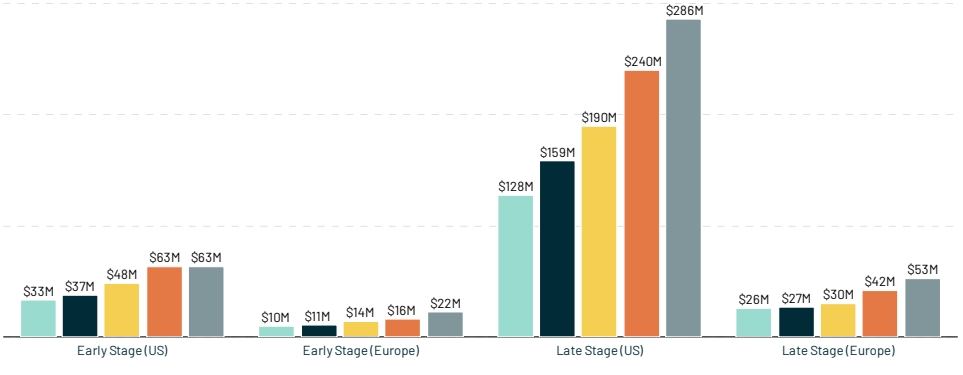
SOURCE: dealroom.co

- Price arbitrage is often stated as one reason that attracts US investors to Europe, though it is likely more a function of the quality of the founders and companies building category-leading positions from Europe that plays a more influential role in the flow of transatlantic capital. Nevertheless, it's interesting to observe that despite very material increases in valuations in European tech that there is still a significant delta versus the US, both in terms of median pre-money valuations at the early-stage, as well as at later stages.

Europe and US VC pre-money valuation ($M) by stage and by year, 75th percentile

LEGEND

- 2016
- 2017
- 2018
- 2019
- 2020



SOURCE: PitchBook

03.3

Venture Debt

Venture Debt Data Challenge

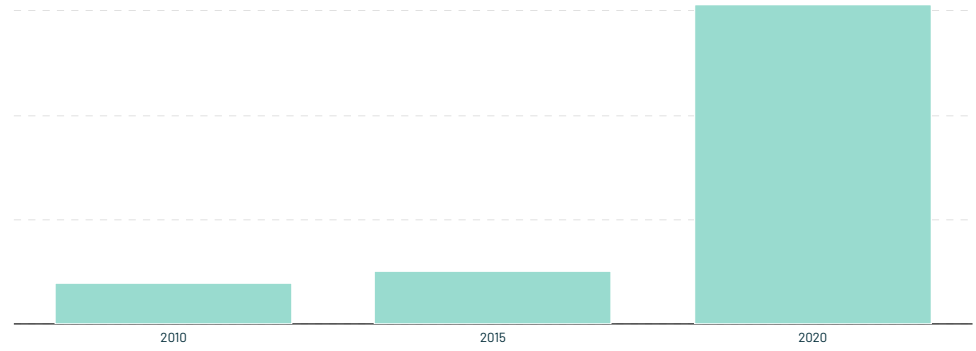
Innovation takes ingenuity and capital. Much attention has been given to the increase in equity available for companies in Europe. However, given the rise in discussions around Venture Debt and the lack of data around the topic, we decided to explore the role of debt in the European venture ecosystem.

Even in a time of abundant cash, debt can be an attractive financing option for venture-backed companies looking for alternatives to equity financing. Debt comes with the need for repayment but by blending debt and equity, companies can form their optimum financing solutions.

There is no comprehensive data on the European market for Venture Debt. Silicon Valley Bank prepared an estimate market size based on a range of data sources and a top-down analysis. Fundraising based on publicly available data was used to estimate annual run rate for new commitments over time. This was supplemented with EIB lending data in the Venture Debt space based on public announcements, as well as Silicon Valley Bank's own lending activities based on internal data. To account for other active participants, the data was grossed up by c.15%. The estimate for 2020 was compared to the European Investment Bank ('EIB') research completed in 2019 which indicated that 5% of the financing in Europe came from Venture Debt, further validating our market size estimate. The data for 2010 is based on the BVCA Rise of Venture Debt report from 2012.

- Data is scarce but over the last 10 years, SVB proprietary market data estimates venture debt activity in Europe has increased by 6-8x, suggesting a market estimate of $1.5B in 2020.

Estimated run rate of Venture Debt ($M) at 5 year intervals



NOTE:

Silicon Valley Bank proprietary market data estimates include only term debt from early-stage venture through to mezzanine for venture-backed technology companies.

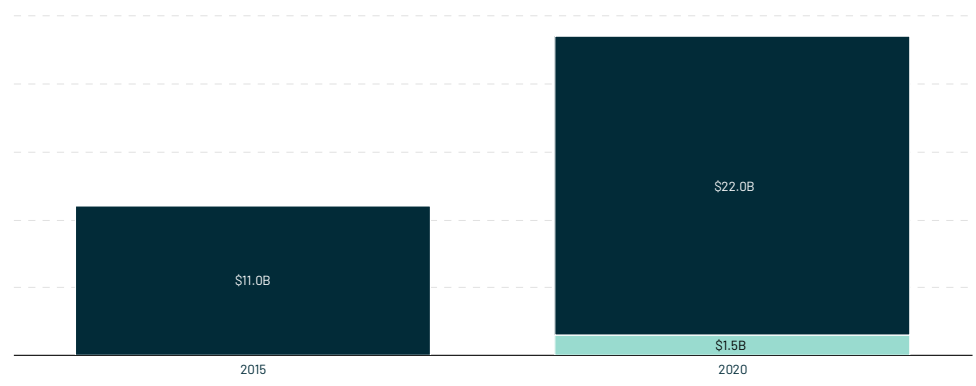
SOURCE: svb Silicon Valley Bank

- Although modest, the relative share of venture debt financing has also increased as a share of capital raised for rounds below $100M in Europe from 2% in 2015 to 6% in 2020. For comparison, in the US where the market is most mature, approximately 16% of all financing is venture debt. At current equity levels, this would suggest $4B capacity per annum.

Venture debt financing as % of venture financing in Europe for deals <$100M

LEGEND

- Venture debt financing
- Equity financing



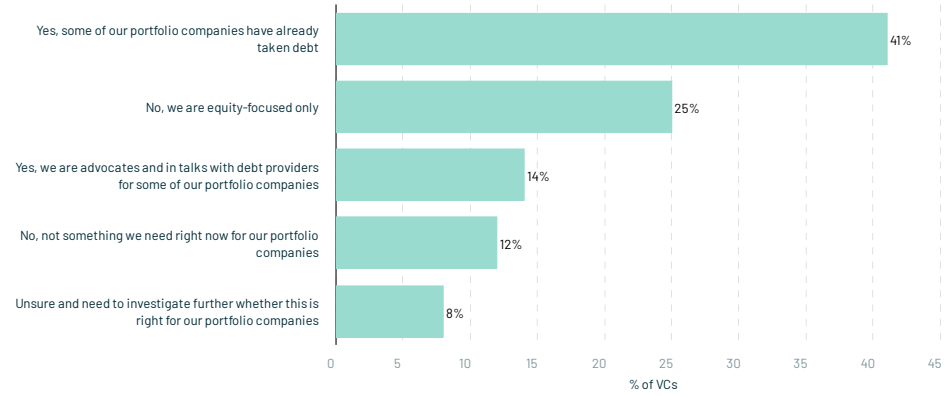
NOTE:

Silicon Valley Bank proprietary market data estimates include only term debt from early-stage venture through to mezzanine for venture-backed technology companies.

SOURCE: dealroom.co svb Silicon Valley Bank

- Within the investor community, there is a growing awareness of debt. Amongst VCs surveyed, 55% are either advocates for the use of debt or are invested in companies that have already taken on debt financing. This percentage doesn't vary based on the VCs' stage of focus.

Is debt part of your capital financing plans for your portfolio companies?



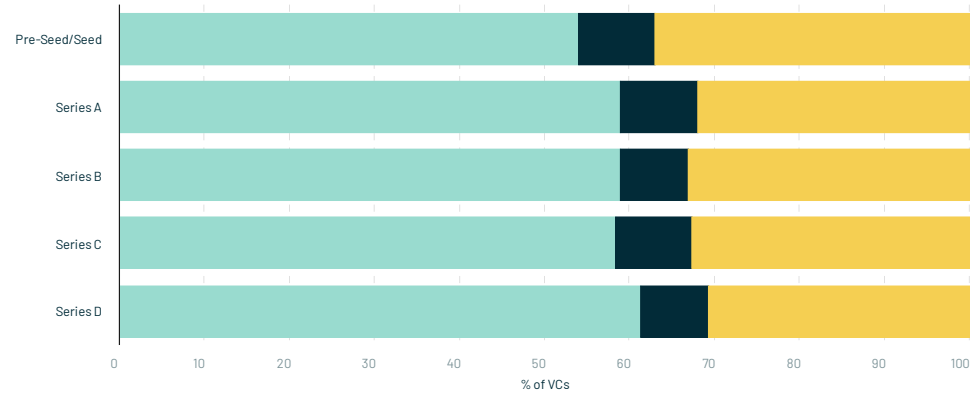
NOTE:

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

SOURCE: The State of European Tech Survey

- According to our survey, VCs who focus on later stage investments more often indicate debt as a part of their portfolio's capital financing plans.

Is debt part of your capital financing plans for your portfolio companies?



NOTE:

VC respondents only.

SOURCE: The State of European Tech Survey

> In our situation, we view venture debt as a cost-effective component of our capital structure. Venture debt can be a very flexible, non-dilutive, way to extend your cash runway and time between equity rounds, which is particularly valuable in periods of high growth, to allow you to maximize your valuation between rounds.

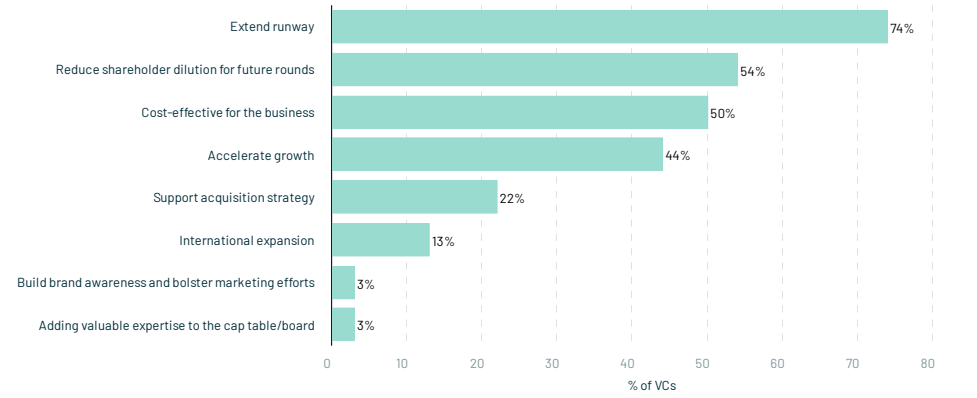
Ken MacAskill
Snyk
CFO

Venture debt is a loan most often secured at the same time or soon after an equity round – and is typically used to compliment equity and extend runway. In fact, 74% of VCs mentioned advising their portfolio companies to take debt for that specific use case. Reducing the costs of shareholder dilution for future rounds is the second most cited reason. It can also benefit start-ups in other ways by reducing the average cost of capital to fund operations when a company is scaling quickly or burning cash. It also provides flexibility to accelerate growth as opportunities arise over the life of the financing round.

Why would you advise your portfolio companies to take debt/venture debt?

NOTE:

VC respondents only. Numbers do not add to 100 as respondents could select unlimited options.



SOURCE: The State of European Tech Survey

Slush 2019
Photo by: Pasi Salminen

> Debt financing can operate as a helpful non-dilutive supplement to equity in fuelling growth. Beyond helping us accelerate our rapid growth, debt financing can also be beneficial in bridging a gap between larger equity financing events.

Peter Holten Mühlmann
Trustpilot
Co-Founder and CEO

VCs' & Founders' Familiarity with Venture Debt

- Although VCs are much more knowledgeable on the topic, only 19% of founders mention being familiar and fully understanding of the lending options available. Investors will gain experience across broader portfolio companies while founders will have more limited first-hand experience. Therefore, understanding of debt options is unsurprisingly better for repeat founders with significant experience scaling businesses, with 27% reporting being well-versed on the topic and 53% being familiar but requiring more research.

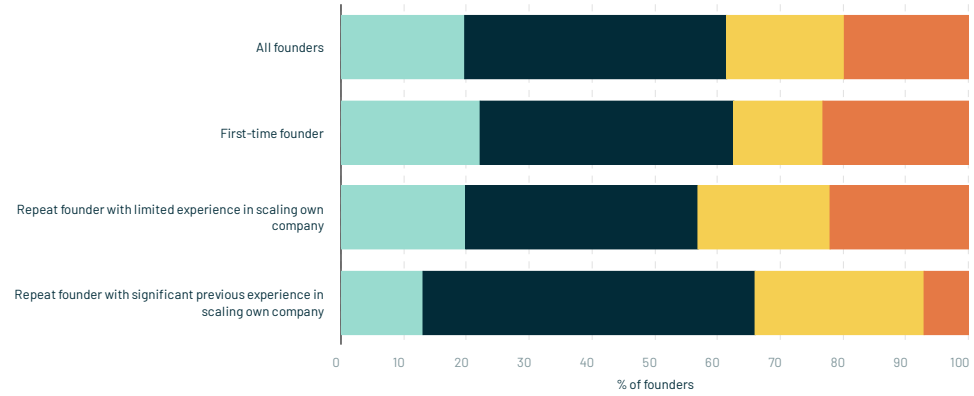
How familiar are you with the different debt solutions available for high growth businesses? (e.g. invoice financing, venture debt, growth lending, working capital, mezzanine)

LEGEND

- Aware but don't understand debt products
- Familiar but need to do more research on lending options
- Familiar and fully understand the lending options available in the market
- Not familiar

NOTE:

Founders respondents only.



SOURCE: The State of European Tech Survey

- Only a few founders (6%) are not familiar with venture debt enough to provide an opinion. The overall perception from founders towards borrowing capital is neutral, with 42% taking this stance. However, founders gain more positive sentiment with experience. 38% of repeat founders with significant experience selected "rather positive" and only 17% selected "rather negative," which is materially lower than for first-time founders.

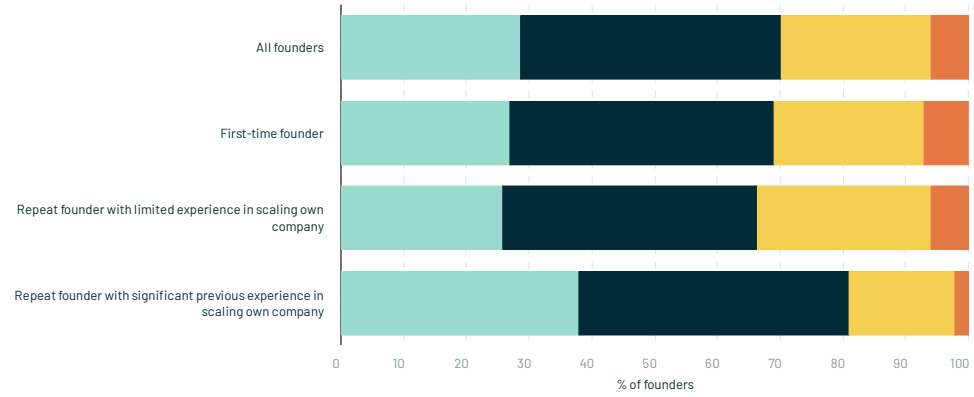
What is your overall perception of debt?

LEGEND

- Rather positive
- Neutral
- Rather negative
- Not sufficiently familiar with debt to comment

NOTE:

Founders respondents only. Numbers may not add up to 100 due to rounding.



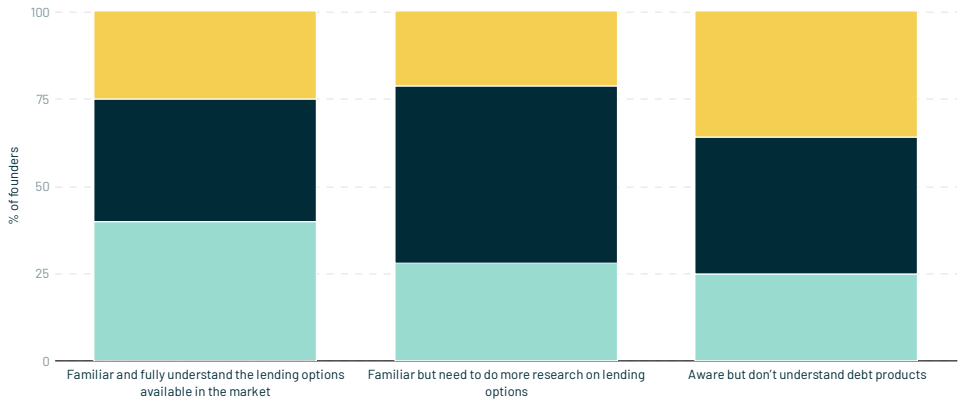
SOURCE: The State of European Tech Survey

- Founders who are most familiar with venture debt are significantly more likely to have a positive perception of it and the inverse is true as well. This points to a negative bias toward venture debt for those less informed on the topic.

Impact of familiarity on overall perception of debt

LEGEND

- Rather Positive
- Neutral
- Rather Negative



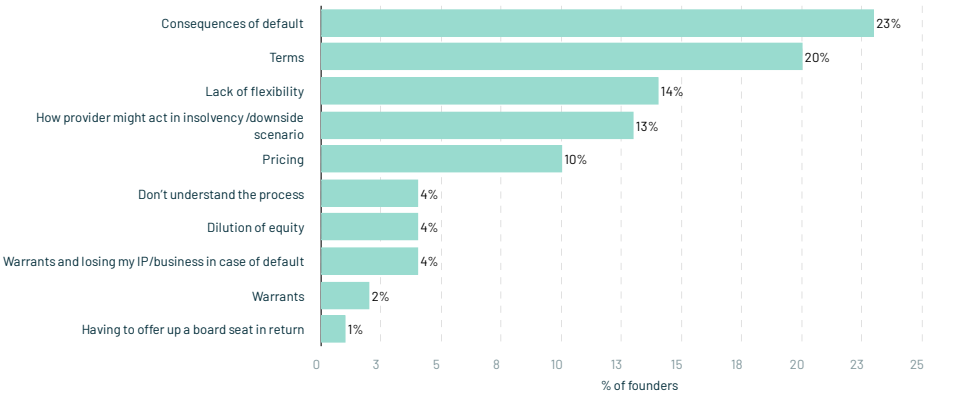
NOTE:

Founders respondents only, excluding those not sufficiently familiar with debt to comment.

SOURCE: The State of European Tech Survey

- For those with a more negative perception of venture debt, 38% selected either consequence of default and lender attitude in a downside scenario as the main causes for concern. In practice, venture debt is typically free from covenants but it may vary between debt providers. It is worth noting that with asset-light business models, value is greatest with the business as a going concern, and therefore lenders are motivated to work closely with investors and founders in a downside case.

Founders: Why is your overall perception of debt negative?



NOTE:

Founders respondents only. Subset of respondents who selected "rather negative" for their overall perception of debt.

SOURCE: The State of European Tech Survey

Sonya Iovieno
Silicon Valley Bank
Head of Venture and Growth Banking

Whichever debt financing option is most suitable for your company, timing is key. Earlier stage businesses will get the most attractive offers from lenders when they have just raised equity and therefore have cash and are less risky. As such, companies may want to explore debt finance when times are good, and they have a lot of cash runway as they will get better offers from lenders. Businesses should avoid waiting to approach lenders when cash is low or they are wanting a cash "bridge", as lenders may then decline or charge a higher price due to the increased risk profile.

Companies should also check each term lender's offer carefully and avoid restrictive items such as covenants set at a level the company is unlikely to achieve, or very high "success fees" payable at exit. Rather than comparing just headline interest rates, companies should compare all terms between competing debt providers to calculate an overall cost of capital which includes arrangement fees, early repayment fees, exit fees, non-utilisation fees etc.

Whichever debt structure you opt for, it's vital to take references on lenders from your Board or advisors and choose a lender who will add value through useful connections (not just finance) and will be supportive over the long term through good times and bad.

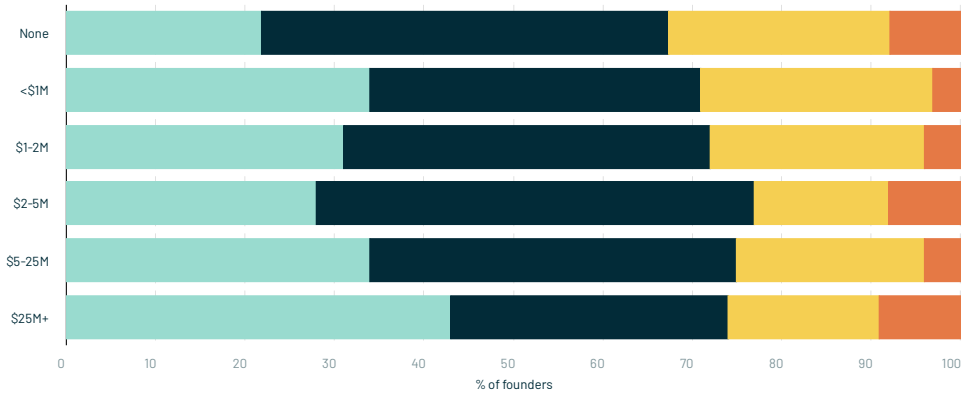
Founders' attitude towards venture debt becomes increasingly more positive as they scale their company in terms of capital raised and company size.

What is your overall perception of debt?

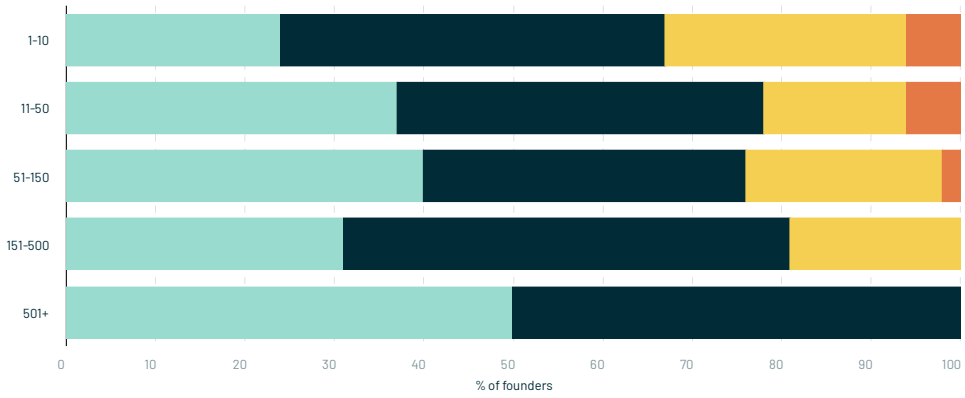
LEGEND

- Rather Positive
- Neutral
- Rather negative
- Not sufficiently familiar with debt to comment

BY CAPITAL RAISED



BY COMPANY SIZE



NOTE:

Founders respondents only. Numbers may not add up to 100 due to rounding.

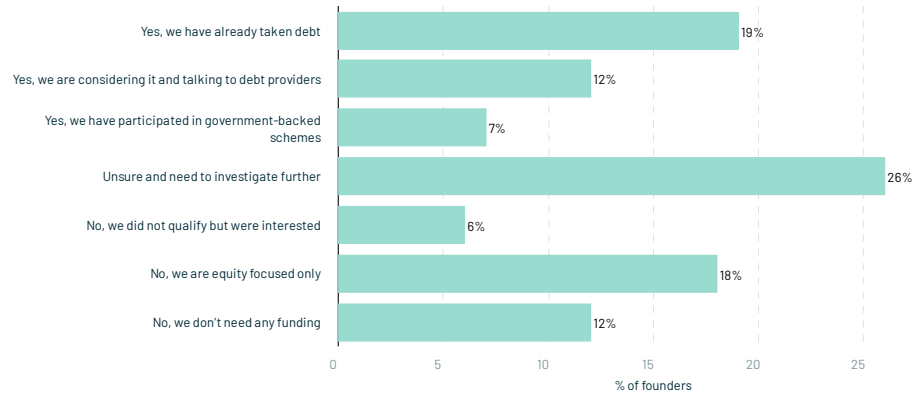
SOURCE: The State of European Tech Survey

Only 19% of founders surveyed have taken debt so far and over 44% mentioned either being unsure or only focusing on securing equity for growing their business.

Is debt part of your capital financing plans for business growth?

NOTE:

Founders respondents only.



SOURCE: The State of European Tech Survey

> **Through venture debt, Daye got to enjoy the best of both worlds - venture capital to fuel growth, and venture debt to enable us to continuously invest in R&D projects that will pay off in the long-term.**

Valentina Milanova
Daye
Founder

Venture debt has proven an essential tool for Daye as we brought the manufacturing of our pain-relieving tampons in house. Venture capital is rarely an appropriate source of funding for hardware, design engineering and production expenses. Through venture debt, Daye got to enjoy the best of both worlds - venture capital to fuel growth, and venture debt to enable us to continuously invest in R&D projects that will pay off in the long-term. We wouldn't have been able to deliver on our promise for genuine product differentiation if we didn't have venture debt at our disposal.

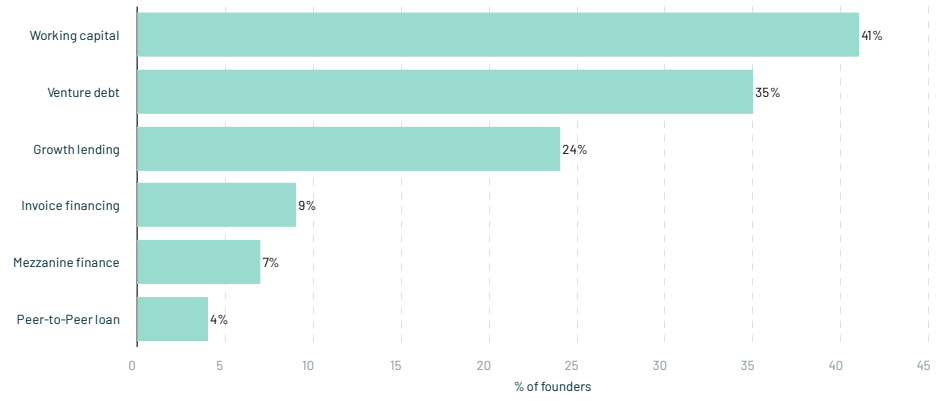
Debt Financing Solutions Cheat Sheet

As companies in Europe reach greater levels, founders and investors are gaining experience across a broad range of financing. Of those 160 founders who used debt in the past, 41% mentioned working capital, 35% venture debt and 24% growth lending.

What types of debt have you used in the past to fuel growth?

NOTE:

Based on the responses from 160 founders who used debt as part of their capital financing plans in the past.



SOURCE: The State of European Tech Survey

Debt Financing Indicative Structures

				
	Venture Debt	**Growth Loan**	**Working Capital & Credit Lines**	**Mezzanine**
Situation	• Series A & B stage • Institutional investors • High-growth potential	• Series B & C+ stage • Institutional investors • Proven economics	• All stages where a company has differences between cash outflows and inflows	• Late stage companies • Pre-IPO financing • Path to profitability
Typical use cases	• Extend runway by 3 - 9 months • Accelerate growth • Mitigate delays	• Extend runway • Accelerate growth • Finance acquisitions	• Free up equity for growth purposes • Fund working capital eg » Customer acquisition costs » Accounts receivable » Inventory financing » Warehouse facilities	• Runway to next round or profitability • Acquisition financing • Other corporate events
Type of facility	Term debt	Term debt	Revolving facility	Term debt
Sources of capital	• Specialist banks • Debt funds • Government-backed funds	• Specialist banks • Debt funds • Government-backed funds	• Specialist banks • Alternative lenders	• Specialist banks • Debt funds
Size	€1 – €10M representing 25 - 35% of the equity round	€5 – 20M	< €1M to €100M+	€10 – €50M+
Term	3 to 4 years	3 to 4 years	Up to 3 years with renewal	3 to 4 years
Repayment	Typically, 24 - 36 months after 6 - 12-month drawdown / interest-only period	30 - 36 months after 12 - 18-month interest-only period depending on milestones /covenants	Monthly interest with principal at maturity	Limited interest and amortisation with bullet repayment
Interest rates (Typical rates)	8 – 12% plus fees	7 – 10% plus fees	5 – 8% when drawn plus a lower non-utilised fee when not used, plus fees	Low-to-mid teens Internal Rate of Return (IRR)
Warrants or equity kicker	Yes	Depends on covenant structure	No	Yes
Covenants	Typically, none. Possible performance test for further tranches	None.	Yes.	Typically, none.
Security	Senior	Senior	Senior	Junior

SOURCE: svb Silicon Valley Bank

03.4

Angels

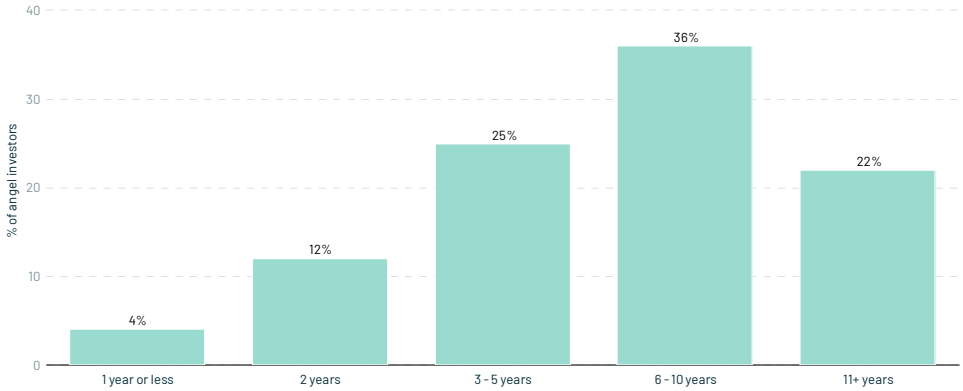
Angels Survey Respondents

There has been a growing interest in angel investing in Europe over the past few years. Last year we found the data was scarce and very few studies were conducted on the topic. As such, we created a set of questions specifically targeted to respondents who identified as angel investors in the survey and received close to 100 responses from all over Europe.

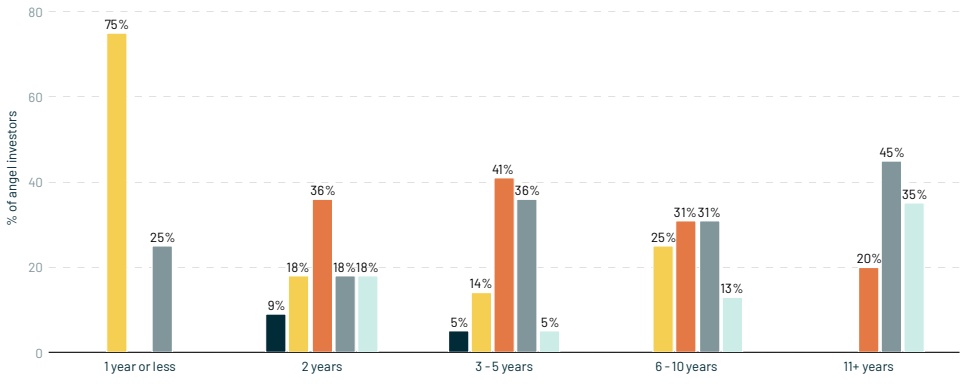
- 58% of angel investors who responded to the survey have been angel investing for over six years. Breaking this down by age group, it becomes clear that respondents belonging to older age groups are more experienced in angel investing. However, the European tech ecosystem has hinted on a shift in paradigm and on greater diversification across angel investor profiles with the continued rise of unicorns and the emergence of talent mafias.

How long have you been angel investing?

All respondents



By age group



LEGEND

- < 21 years old
- 31 - 40 years old
- 41 - 50 years old
- 51 - 60 years old
- 61+ years old
- Prefer not to say

NOTE:

Angel investor respondents only. Numbers may not add up to 100 due to rounding.

SOURCE: The State of European Tech Survey

As mentioned above, the European tech ecosystem is proving that both recycled tech talent and capital continue to nurture the ecosystem. Nearly 80% of angel respondents have worked at a tech start-up and or founded their own business and are now focusing on investing in and supporting early stage companies.

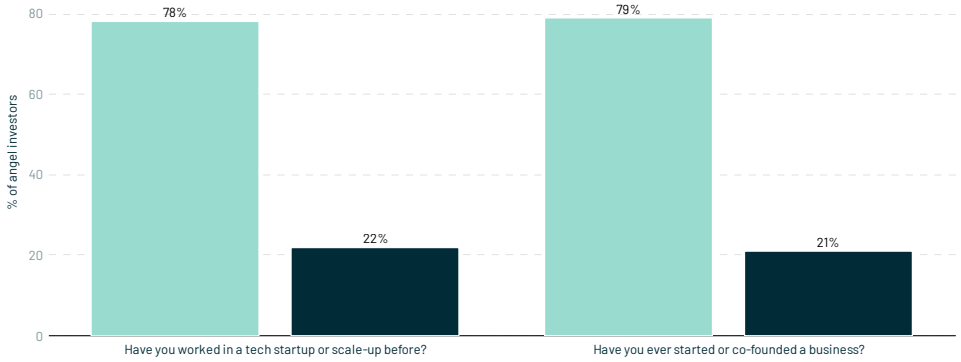
Have you worked in a tech start-up or scale-up or started / co-founded a business?

LEGEND

- Yes
- No

NOTE:

Angel respondents only.



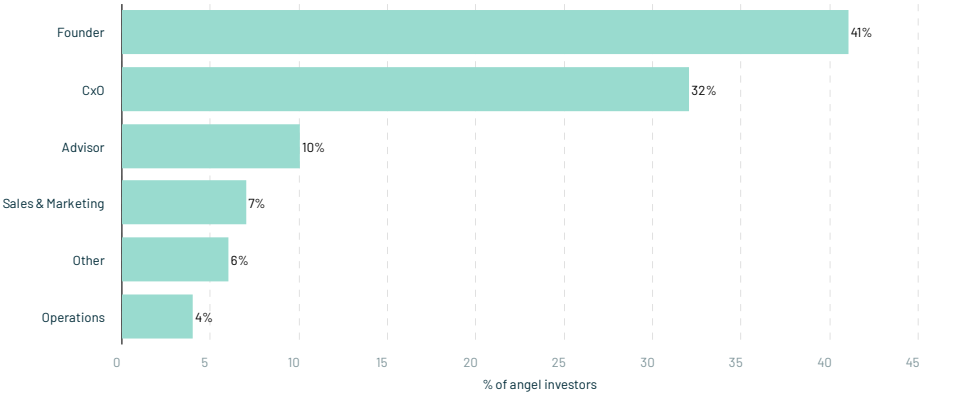
SOURCE: The State of European Tech Survey

Expectedly, the majority of angel investor respondents come from a tech background. Nearly 80% of them have had previous experience working at a tech start-up or scale-up mostly as founders, followed by senior leaders and operators in CxO positions. In terms of investing experience, a large number of the angel investor respondents have been a part of wider angel syndicate and, on average, have been investing for over six years.

What was your capacity in the tech start-up or scale-up?

NOTE:

Angel investor respondents only.



SOURCE: The State of European Tech Survey

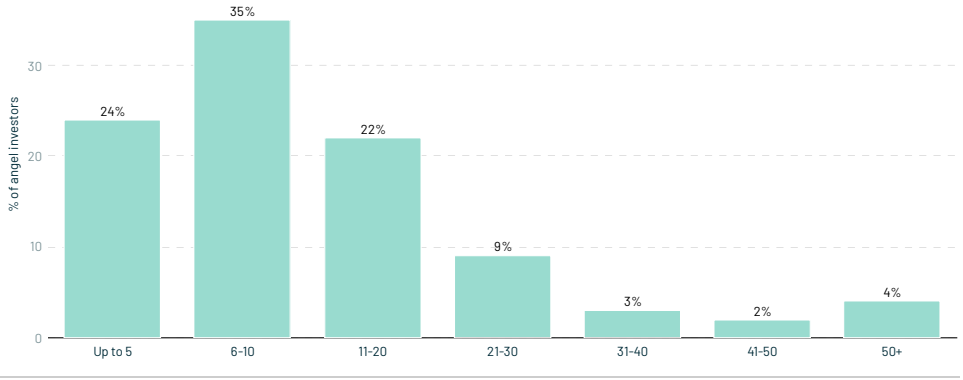
The next generation of tech leaders now has the opportunity to vote for the teams they believe can build the next global success story out of Europe.

Sonali De Rycker
Accel
Partner

Angel investing has been democratized by the rise of scout programs, with investments no longer just coming from a small pool of previously successful entrepreneurs. The next generation of tech leaders now has the opportunity to vote for the teams they believe can build the next global success story out of Europe. Scout programs are just another measure of Europe's maturing tech ecosystem, where it has become increasingly common to start a company rather than simply join one. People invest in people and, in a fragmented European market, those best-placed to spot talent early on are often former colleagues at tech companies - where many scout initiatives are now focused.

- Investment portfolio diversification varies significantly across angel investors. While 59% of angel investors respondents have made less than 10 investments to date, including nearly a quarter that have made fewer than five, around 4% have built portfolios with over 50 investments. This comes as no surprise; while some angels are more experienced and have been investing over longer periods of time, others are simply just starting out.

How many start-ups do you currently have in your portfolio?



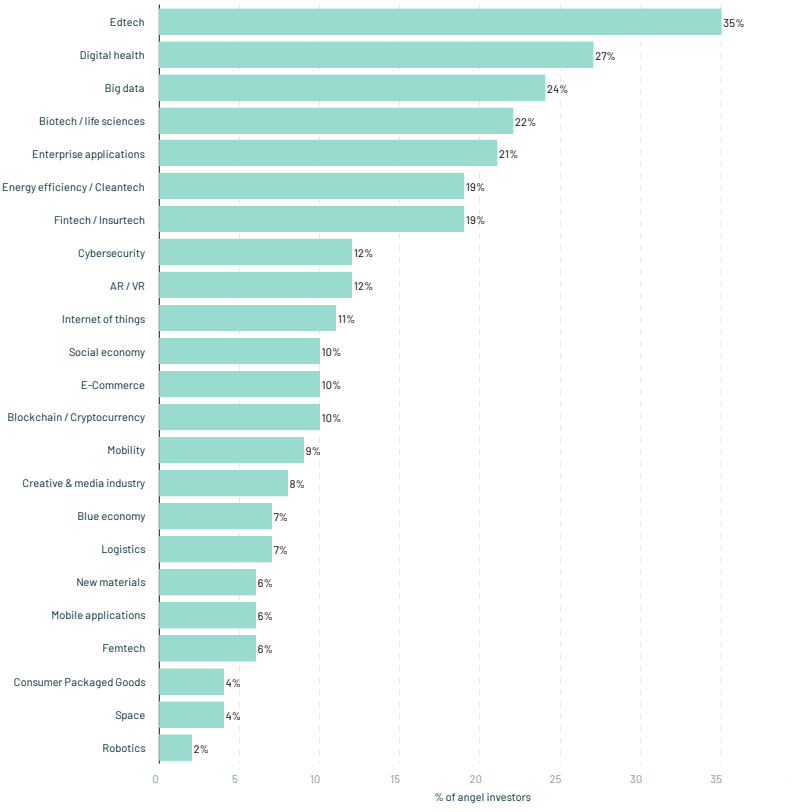
SOURCE: The State of European Tech Survey

NOTE:

Angel investor respondents only.

- Investment activity across angel investor respondents provides a forward-looking view and insight into upcoming trends defining the earliest stages of entrepreneurial activity. It's incredibly interesting to understand the categories that are most exciting to Europe's angel investor community, which could potentially define upcoming trends across the ecosystem. Interestingly, angel investor respondents prominently ranked sectors that closely correlate to current macro thematic challenges as ones they are most excited about such as edtech, digital health, biotech/life sciences and climate.

Which sectors are you most excited about?



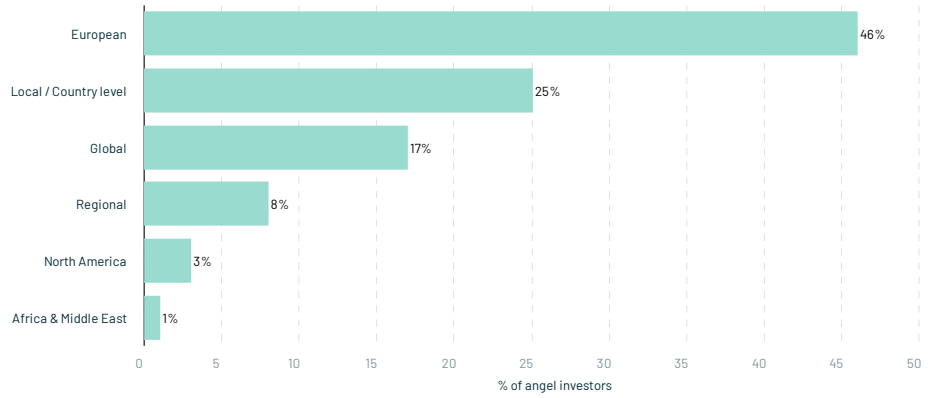
SOURCE: The State of European Tech Survey

NOTE:

Angel investor respondents only.

It would be safe to assume that European angel investment activity largely plays out in localised ways given the inherent importance and element of relationships at the earliest stages of investment. The survey responses drive a wedge through that assumption. Although nearly a quarter of respondents focus on local investments at the national level, the largest share of angels, nearly half (46%) focus on European-wide investments, while a further 17% focus globally, suggesting that even at the earliest stages, capital flows across European hubs are more interconnected than many might think.

What is your geographical focus for investments?



NOTE:
Angel investor respondents only.

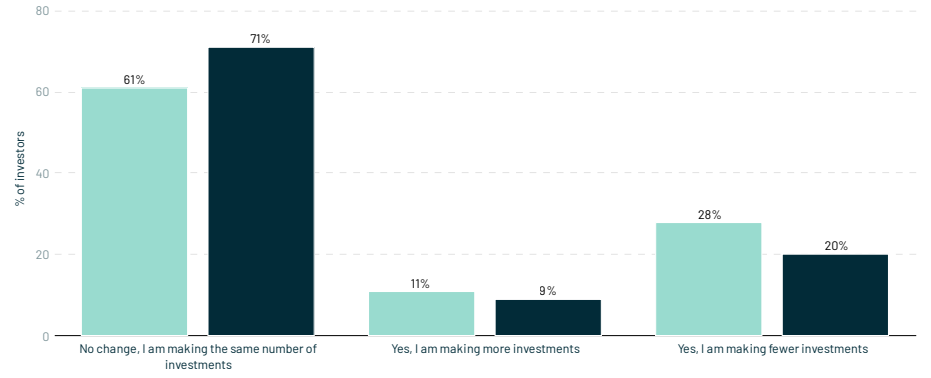
SOURCE: The State of European Tech Survey

The majority of angel investor respondents (61%) have remained consistent in their deployment strategy despite the Covid-19 pandemic, which is broadly aligned with the sentiment shared by VCs. Though angels more frequently cited a slow down in the pace of investments compared to VC respondents, they also more frequently cited in an increase in investment speed.

Since the start of Covid-19, have you revised your deployment strategy?

LEGEND
- Share of angel investors
- Share of VC investors

Deployment pace



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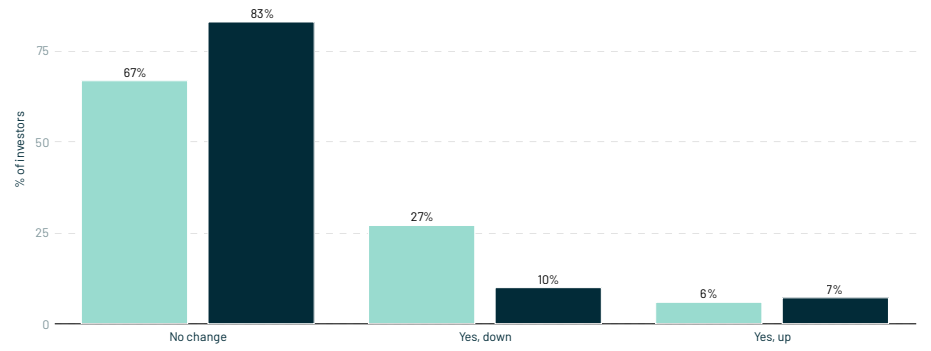
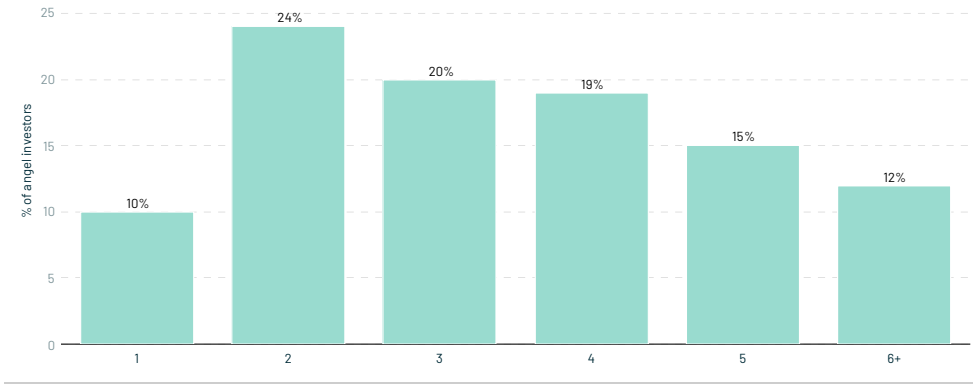


NOTE:
Angel investor and VC respondents only.

SOURCE: The State of European Tech Survey

At what pace are angels deploying capital? This varies across respondents. Almost a third (27%) are very active and make more than five investments per year on average, while another third (34%) make between 1-2 investments.

How many new investments do you typically do in a year?



SOURCE: The State of European Tech Survey

NOTE:

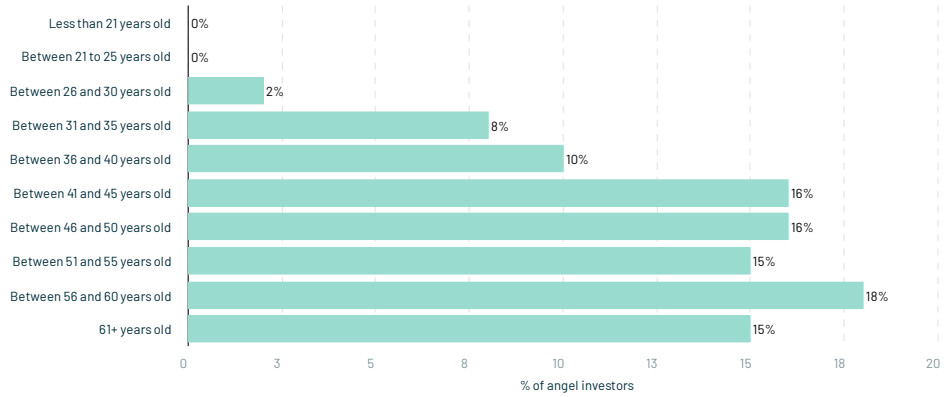
Angel investor respondents only.

State of European Tech 2020 report launch

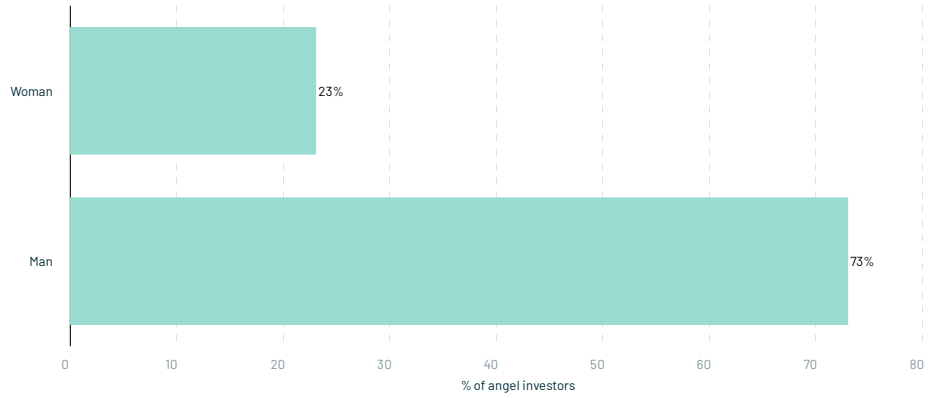
The survey provides insight into the demographics of European angel investors on a self-reported basis. To no surprise, there was a lack of diversity and representation across demographic groups. The share of angels who self-identified as Black, Multi-Ethnic, Asian or Hispanic/Latinx represented 15% of the angel respondents, 23% identified as women and 63% are aged 46 and older. Some existing trends have the potential to change the status quo and have meaningful impact on angel investor demographics. One example is the launch of AngelList's Rolling Venture Funds in the US earlier this year, which has been made possible by a regulatory change by the SEC and the tech infrastructure provided by AngelList. This structure makes it easier for individuals to leverage their reach and experience to raise funds. It also has the potential to enable greater diversity across GPs by opening up access to different LP capital pools. 70 of these rolling funds have been set up in the US by active investors. Their possible arrival in Europe should be encouraged and welcomed.

Angel survey respondents by age group, gender and by ethnicity

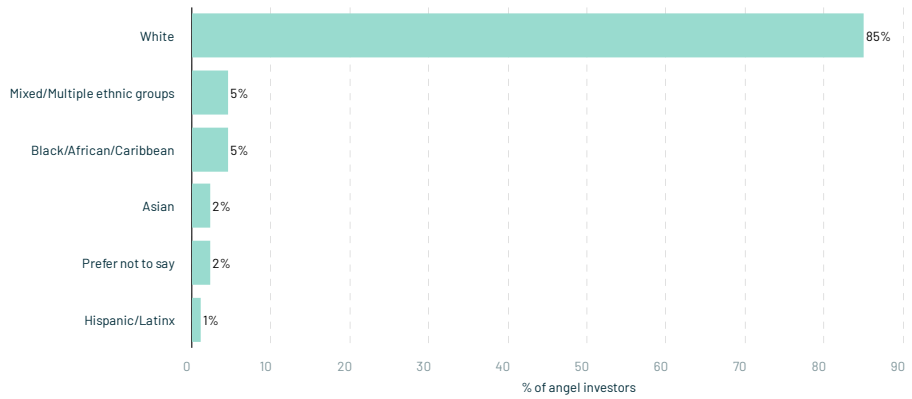
By age group



By gender



By ethnicity

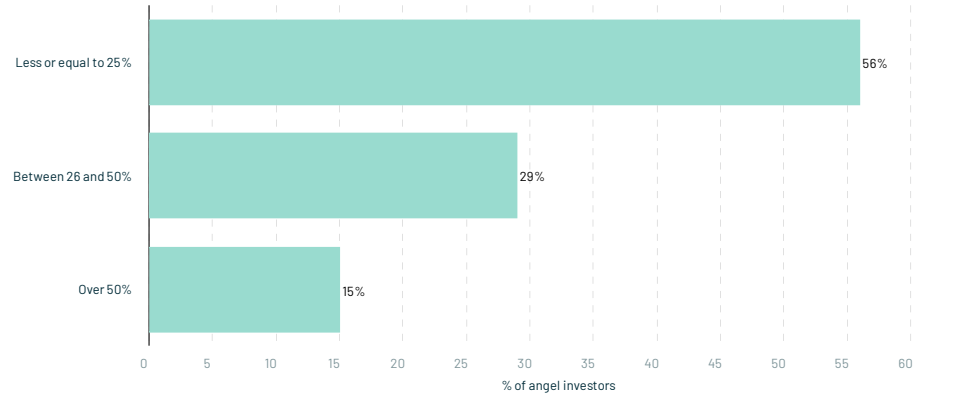


NOTE:
Angel investor respondents only.

SOURCE: The State of European Tech Survey

- Respondents also shared insight into the level of diversity within their angel investment portfolios. It's interesting to look at founder diversity within angel investor portfolios especially given these early stage companies are at the top of the investment funnel and consequently provide visibility on upcoming talent and deal flow for subsequent institutional investment rounds.

What percentage of your portfolio companies have at least one founder from an underrepresented background in the founding team?



NOTE:

Angel investor respondents only. Underrepresented across gender, ethnicity, disability, socioeconomic status.

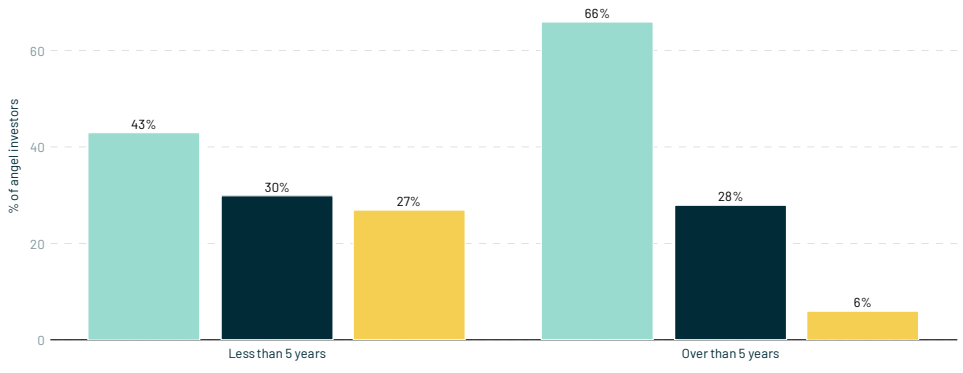
SOURCE: The State of European Tech Survey

- The newer generation of angel investors, as represented by those that have started to angel invest within the last five years, appear to be investing in a more diverse set of founders. This provides some insight - though not causal evidence - that the pool of founders at the angel investment stage has more recently started to diversify with greater numbers of underrepresented founders.

Share of underrepresented founders by angel experience

LEGEND

- Less or equal to 25%
- Between 26 and 50%
- Over 50%



NOTE:

Angel investor respondents only.

SOURCE: The State of European Tech Survey

- The most established angel investors with the largest portfolios also appear to have invested in a less diverse portfolio of founders.

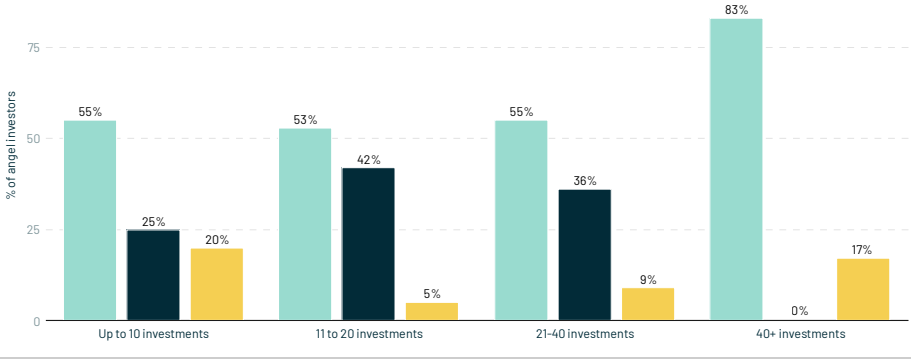
Share of underrepresented founders by portfolio size

LEGEND

- Less or equal to 25%
- Between 26 and 50%
- 50%+

NOTE:

Angel investor respondents only.



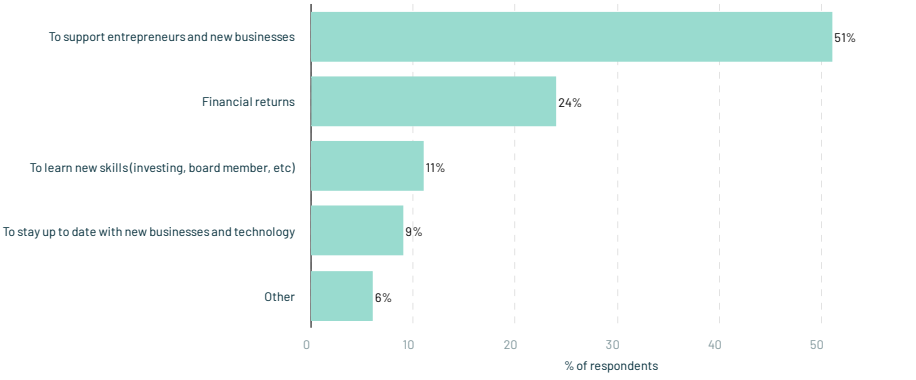
SOURCE: The State of European Tech Survey

- Supporting entrepreneurs and new businesses along with financial returns are the top two motivations for angel investing by our survey respondents. This insight is interesting in the context of the main motivations shared by angel investors for why they are investing in start-ups. For those angels that are former operators, the main motivation is to give back by supporting entrepreneurs and new businesses. Their capital is important, but their operating experience and networks can be even more accretive for the founders they back. It's important that underrepresented founders are able to access this.

What is your main motivation for investing in start-ups?

NOTE:

Angel investor respondents only.



SOURCE: The State of European Tech Survey

- As we highlighted in last year's report, a large share of angel investment activity is not "visible," which makes it hard to track capital flows across Europe in the earliest stage of funding. Still, Dealroom's data supports our survey findings. It is also a helpful proxy for the type of founding teams getting capital and although this only puts the finger on gender imbalances, it is a stark reminder that diversity is an issue at every stage of the stack.

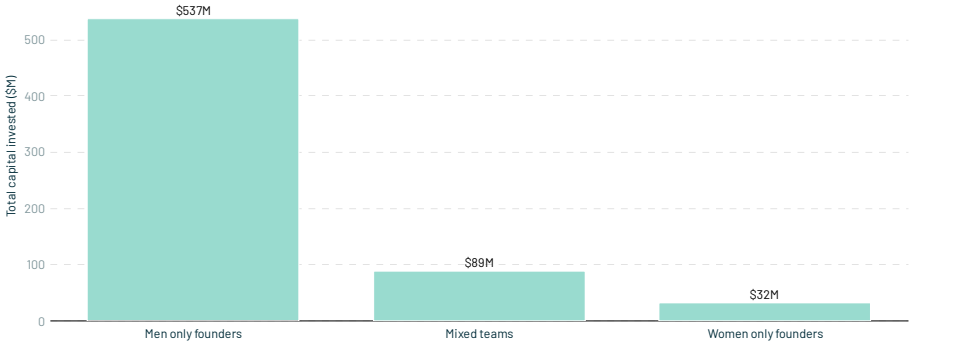
Cumulative capital invested ($M) by angel investors by founding team gender, 2016-2020

LEGEND

- Capital invested ($M)

NOTE:

Data as of 30 September 2020.



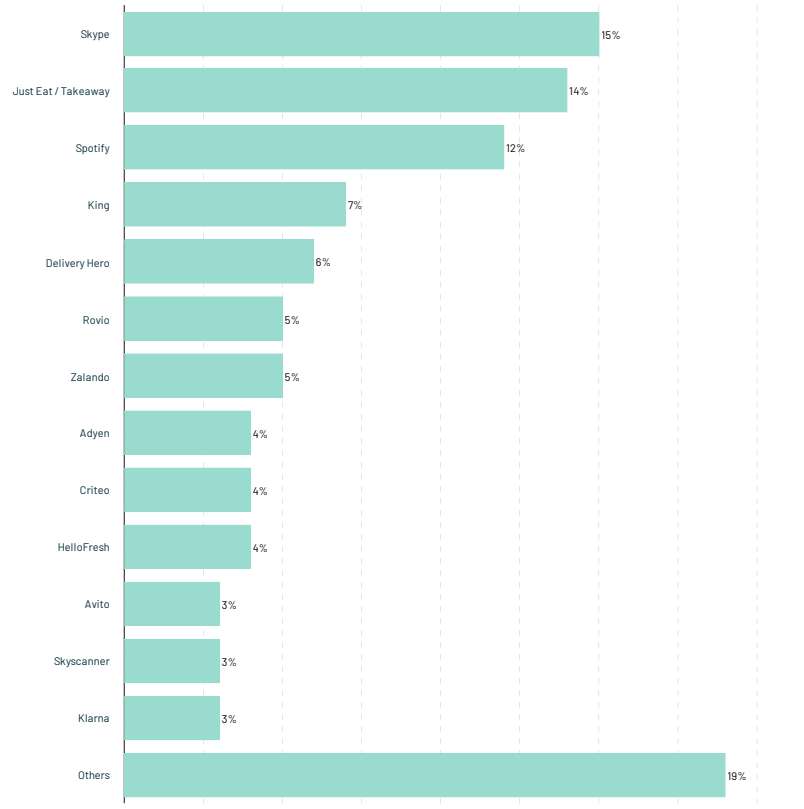
SOURCE: dealroom.co

Talent Recycling

We gathered a list of over 100 ex-operators from $B+ European companies that had become investors, either through angel or institutional investing. This is not an exhaustive list and is entirely based on manual scraping of publicly available sources, but is a large enough sample to represent the type of investors emerging from the first generation of successful scale-ups.

- 13 companies count more than three angels actively investing in the European ecosystem and a further 16 have two or less angel alumni. Still it is remarkable to see that Skype, Spotify and Just Eat / Takeaway account for over 40% of the sample cohort.

Share of ex-operator angels by alumni company



NOTE:

Numbers don't add up to 100, as some had experience in more than one company.

SOURCE: atomico

At my last count there were more than 20 start-ups founded by TransferWise alumni, there are probably many more today. This mini ecosystem is supported with hires, advisory, connections and in many cases angel funding from other ex TransferWisers.

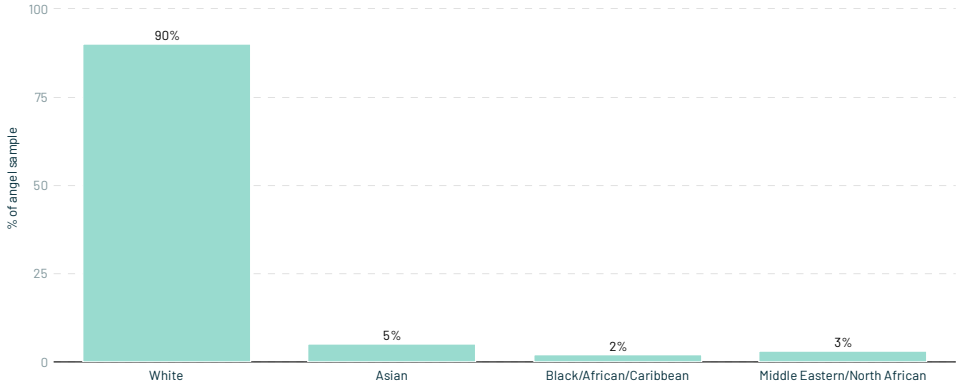
An entrepreneurial mindset is a non-negotiable part of life at TransferWise, we encourage it and we hire for it. Everybody in the business has incredibly hard problems to solve, now just as much as in the earliest days, and an entrepreneurial spirit is essential in overcoming those challenges. At my last count there were more than 20 start-ups founded by TransferWise alumni, there are probably many more today. This mini ecosystem is supported with hires, advisory, connections and in many cases angel funding from other ex TransferWisers. That network is hard to replicate, and incredibly valuable. This very special environment is making more people feel supported to take the leap and solve other hard problems in the world once their time at TransferWise is up.

Taavet Hinrikus
TransferWise
Co-Founder
and CEO

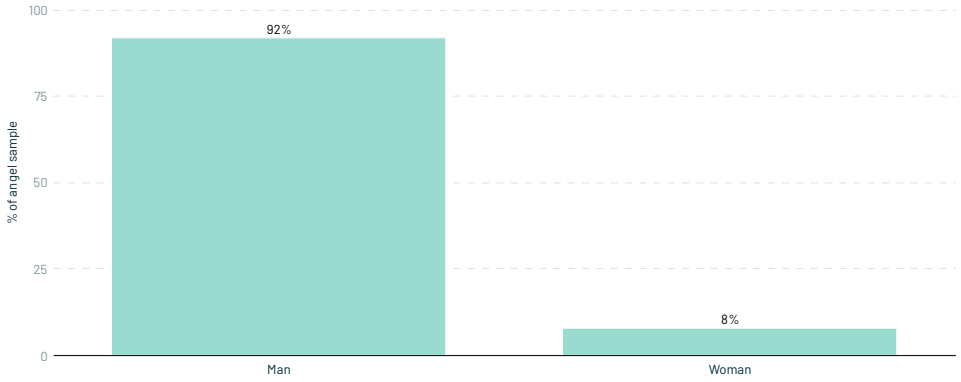
- Similar to our survey respondents, there is a lack of diversity amongst ex-operators. There were only 10% of underrepresented ethnicities and 8% of women in the sample.

Share of ex-operator angels by ethnicity and by gender

By ethnicity



By gender



NOTE:

Angel investor respondents only.

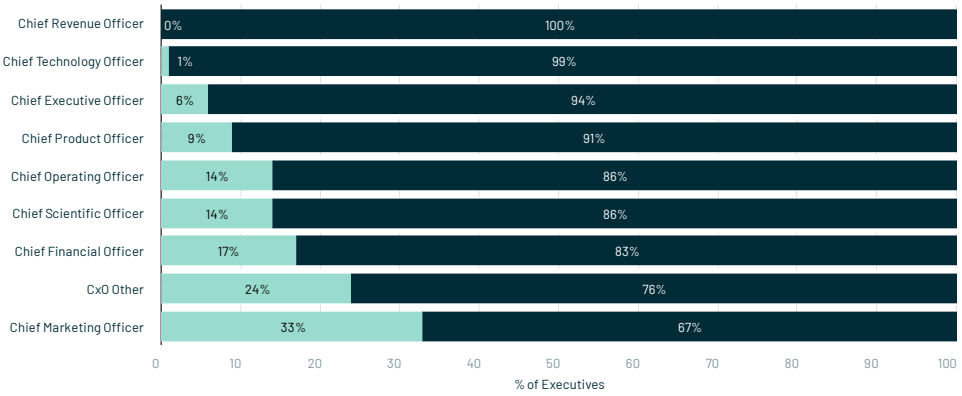
SOURCE: The State of European Tech Survey

- This is not entirely surprising in turn when looking at the gender composition by C-level title in companies that have raised Series A or Series B. Women represent less than 20% of senior management in these companies.

Gender composition by C-level title

LEGEND

- Women
- Men



NOTE:

Based on a sample of founders and executives in CxO positions at 348 European VC-backed tech companies that raised a Series A or B round between 1 October 2019 and 30 September 2020 with more than $10M in total funding.

SOURCE: Craft, dealroom.co, Engage Inclusivity

This is not a trend that is changing either. For the past three years, the share of CTOs has been at stagnating at a mere 1% and this is not by lack of talent in the ecosystem. The system needs fixing at every layer and as much as investors have work to do on rebalancing capital allocation, the founders of tomorrow also need guidance and support on assembling a more diverse team.

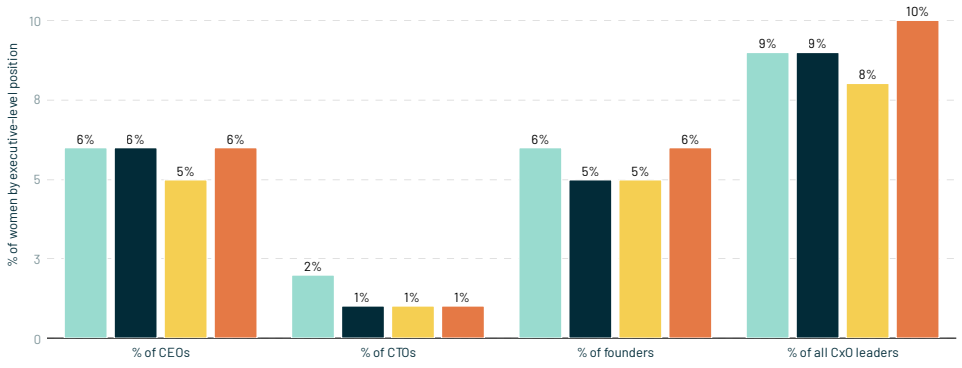
Share of women (%) by executive-level positions of selected European Series A and B venture-backed companies

LEGEND

- 2017
- 2018
- 2019
- 2020

NOTE:

Based on a sample of founders & executives in CxO positions at European VC-backed tech companies that raised a Series A or B round with more than $10M in total funding in that respective year (Q3 FY). 2020 includes 348 companies.



SOURCE: Craft dealroom.co Engage Inclusivity

Breaking the cycle

Widening access to capital to a more diverse group of individuals should accelerate the rebalancing of the founder makeup at the later stages. The Atomico angel programme was started in 2018 on this premise and with now two angel cohorts of 23 active individuals and close to 90 investments made, there is a sufficient sample size to put this hypothesis to the test. Given the rise of more angel and scout programs around Europe, it is perhaps a good time to share some of our key findings.

Atomico Angel Program Cohort 2

Andy Davis
United Kingdom

Sarah Drinkwater
United Kingdom

Robert Gaal
The Netherlands

Cédric Giorgi
France

Gulnaz Khusainova
Denmark

Harry McLaverty
United Kingdom

Deepali Nangia
United Kingdom

Maud Pasturaud
France

Marcus Ross
Germany

Christine Spiten
Norway

Danica Krajic
Sweden

Tine Thygesen
Denmark

Katja Toropainen
Finland

Karina Univer
Estonia

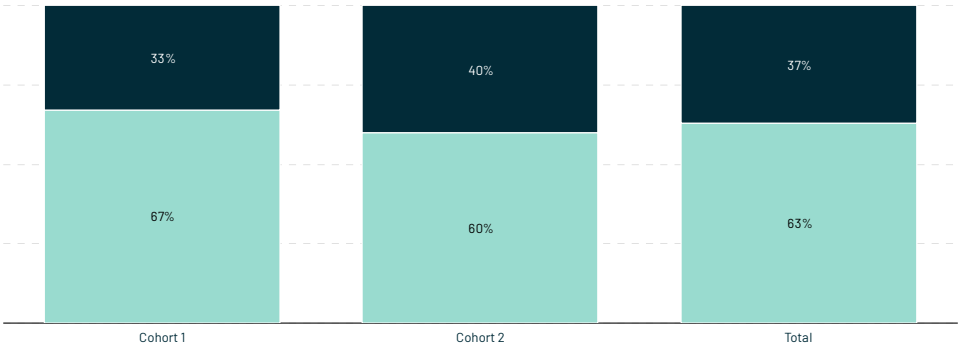
Ville Vesterinen
Finland

- Over 60% of angels in the first two cohorts were women and over 20% from an underrepresented ethnicity. We will be materially improving on the ethnic makeup of our next cohort.

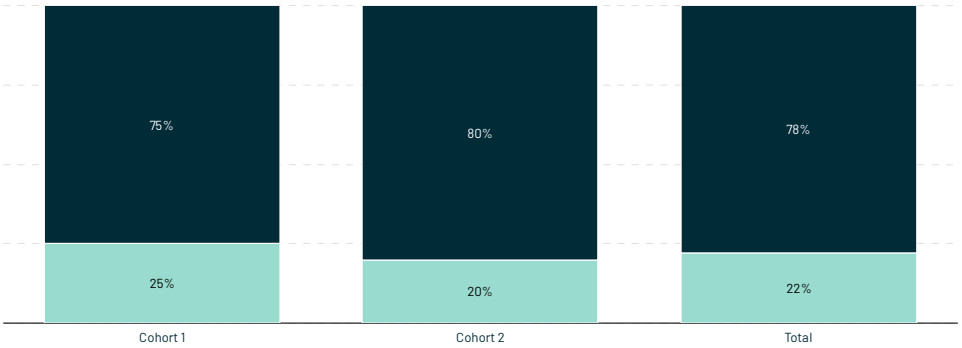
Atomico Angel Programme cohorts breakdown by gender and by ethnicity

LEGEND
- Women
- Men

By gender



by ethnicity



SOURCE: atomico

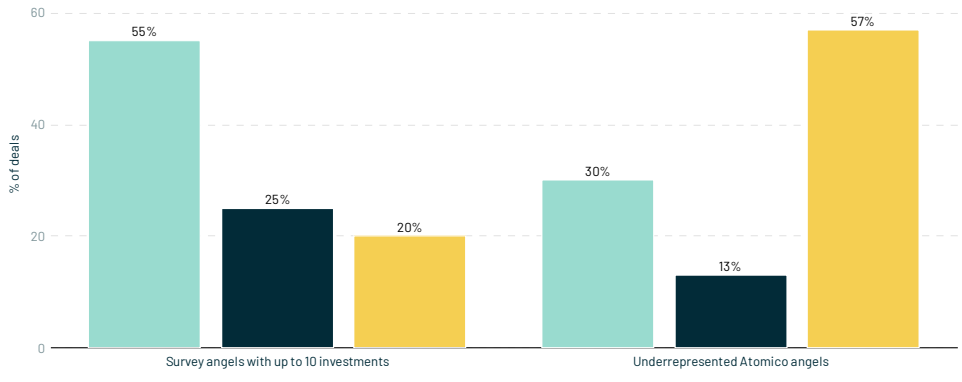
- Comparing angel investors who have made up to 10 investments with angel investors in the Atomico program, we can see the stark difference in the makeup of the founders they back.

Share of underrepresented founders in portfolio of survey respondents versus Atomico Angels

LEGEND
- Less or equal to 25%
- Between 26 and 50%
- Over 50%

NOTE:

Underrepresented in the context of Atomico angels is defined as Women founders and founders from underrepresented ethnicity.



SOURCE: The State of European Tech Survey atomico

Drilling down on the portfolio diversity makeup of Atomico angels, there are some interesting differences. Given the large proportion of women angels on the program, there is a much larger representation of women founders in the angels portfolio, with over 35% of angels stating 50%+ of companies in their portfolio has at least a women founder. Although the share of angels with a number of investments involving at least one founder from an underrepresented ethnicity is much lower at 13%, it is likely to change with more underrepresented ethnicity in future cohorts. Indeed, the six angels who are themselves from underrepresented ethnicity collectively led 20 investments, of which 55% were backing founders from underrepresented ethnicity.

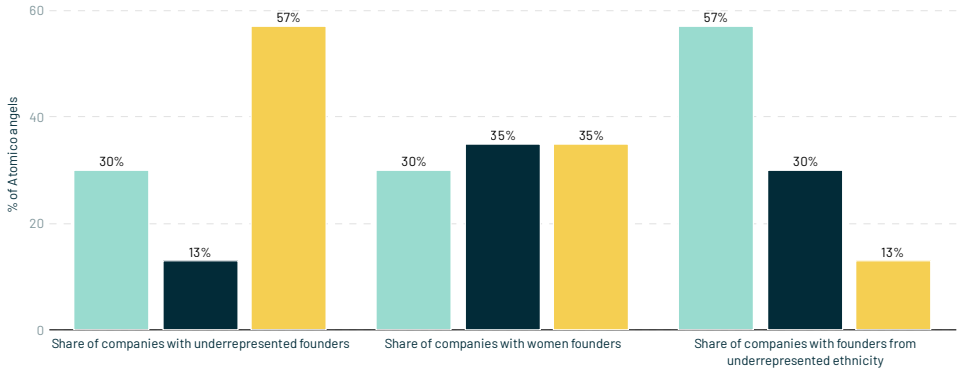
Share of angels based on share of companies in portfolio by team diversity makeup

LEGEND

- Less or equal to 25%
- Between 26 and 50%
- Over 50%

NOTE:

Based on Atomico angels from cohort one and two investments to date.



SOURCE: atomico

Creating a stronger network of angels is a way to build a stronger European start-up ecosystem... But one of the key obstacles to creating such a network is accessibility.

Gulnaz Khusainova
Easysize
Founder

I think creating a stronger network of angels is a way to build a stronger European start-up ecosystem. Angel investors usually bring more market expertise and personal experience and passion to the start-ups they invest in, which is so valuable in the early days.

But one of the key obstacles to creating such a network is accessibility. Angel investing is still something that only very few people are doing and are able to do. And there aren't many resources to support them or attract new ones.

There is this notion that to be an angel investor, one has to be able to invest big checks. In some countries that is still the case due to laws that are tailored more towards professional investors.

While we're waiting for legislation to catch up, it has been great to see that crowd-investing platforms, like Funderbeam, are becoming more popular. Another example is the launch of an angel syndicate by Unconventional Ventures.

04 Value Creation

Who said Europe couldn't build tech giants?

2020 saw 18 new 1B+ companies, Klarna and UiPath become $10B+ companies, and Adyen and Spotify pass $50B valuations. The ecosystem is now systematically recycling experienced talent to build new generations of companies. And if exit and M&A numbers are still far behind the US, there are hopeful signs that this is changing.

04.1
Seed to $1B+

Methodology

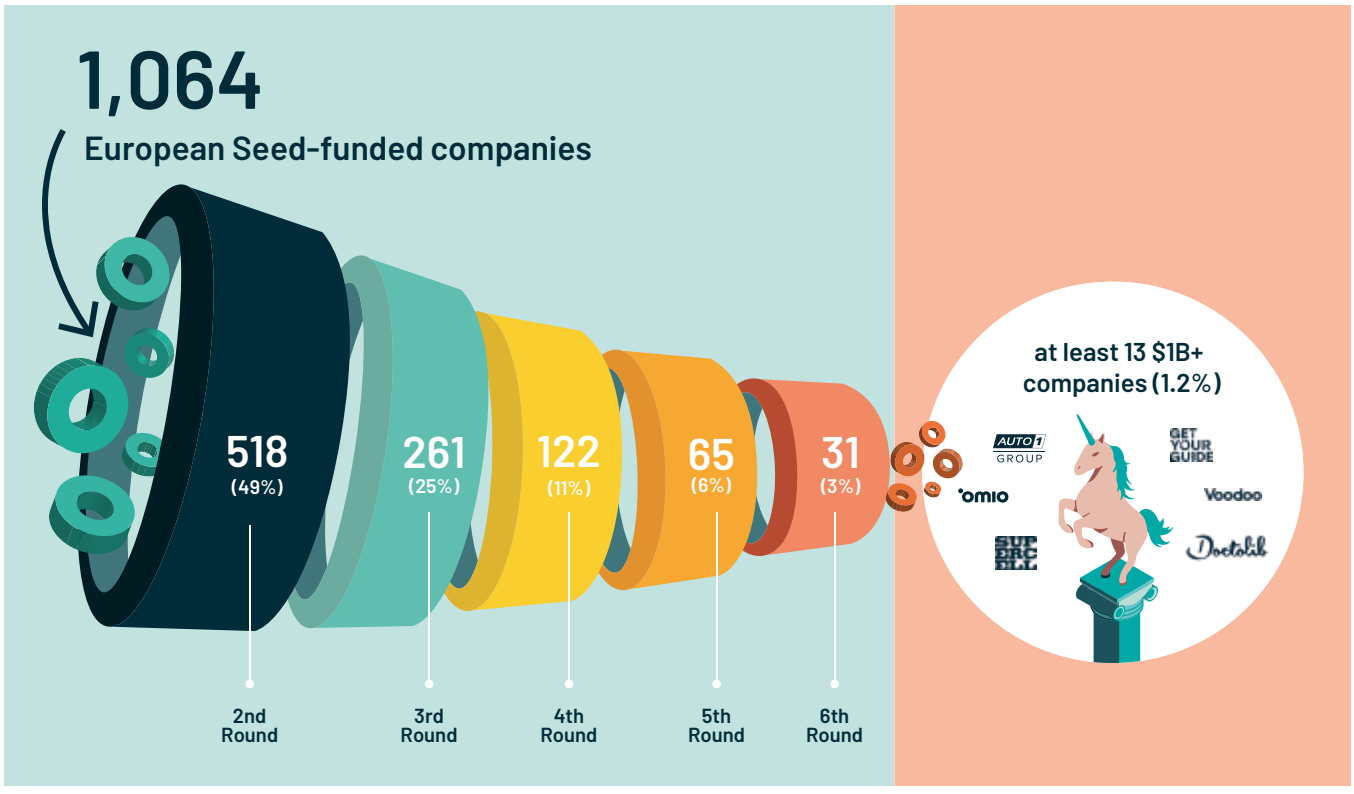
Together with our partner Dealroom, we set out to find out what proportion of Seed-funded startups make it to a $1B+ valuation in Europe. This was inspired by an excellent analysis for the US market shared by CB Insights.

Our first step was to create a clean dataset; this involved creating filters that may exclude certain companies. These filters were used to exclude: crowdfunding rounds, rounds with no investor, and rounds involving companies without a founding date. This left a clean, standardised cohort of 1,064 companies that raised a qualifying Seed round between 2010 and 2013. The lifecycle of these companies has been tracked until November 2020.

The dataset quantifies their fundraising journey, path to exit and, ultimately, shows whether the companies reached a $1B+ valuation. We can see what rounds the companies raised, how much they raised and how long it took them along each step of the journey. For those companies that exited, we can explore when those exits happened and, when disclosed, at what valuation. The data also distinguishes companies that fail to raise further rounds of funding or make it to an exit. These companies are either out of business or have become self-sustaining companies. A key limitation of this analysis is the inability to specifically separate those that are out of business with those that are self-sustaining.

Dealroom's analysis for Europe is presented alongside the US data from CB Insights for illustrative benchmarking purposes. It should be noted that there may be minor differences in the underlying methodology, although we do not believe these would materially distort the findings.

Journey of a European VC-backed tech startup



SOURCE: dealroom.co

Let's get straight to the punchline. Dealroom's analysis found that a Seed-funded company building from Europe has the same probability of scaling to a $1B+ valuation as the average Seed-funded company building from the US. According to the funnel analysis, 13 of the 1,064 companies in the starting cohort have gone on to achieve a $1B+ valuation, equivalent to 1.2%. In other words, a company raising a Seed round of funding in Europe has about a 1-in-a-100 shot of becoming a unicorn.

BECOMING A UNICORN

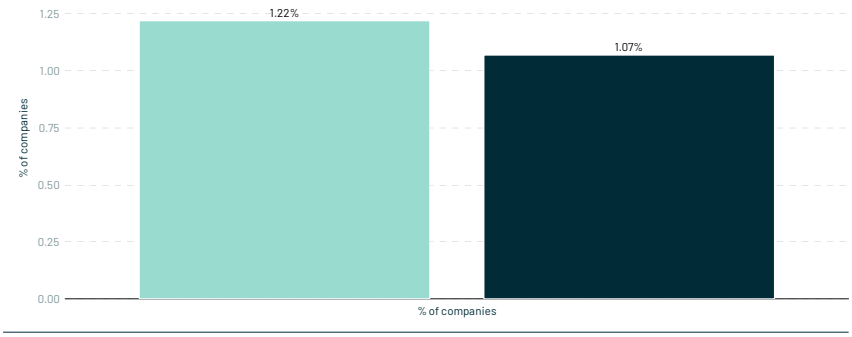
1 in 100

companies raising a Seed round have a shot of becoming a unicorn

Share of companies in initial cohort that reached a $1B+ valuation or higher, by region

LEGEND

- Europe
- United States



SOURCE: dealroom.co CBINSIGHTS

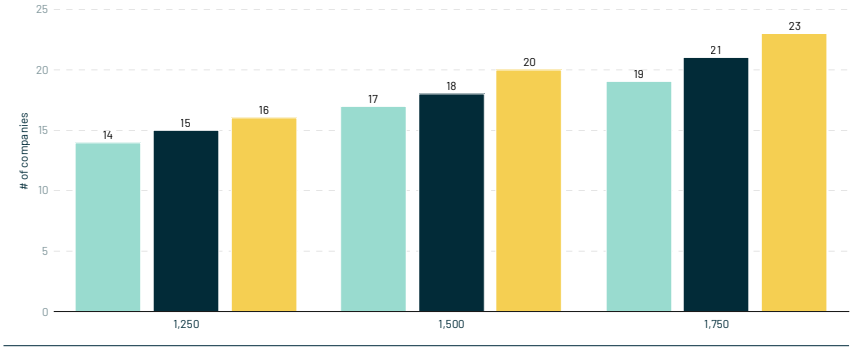
Selected European $1B+ Companies

This cohort included breakout companies such as Supercell, TransferWise, Auto1 Group, GetYourGuide, Doctolib, HelloFresh and others that all scaled to a $1B+ valuation. As the cohort continues to mature, the actual number of $1B+ companies will likely continue to grow.

- The unicorn conversion rate is a helpful measure to project the expected number of new $1B+ companies being started across Europe each year, using the total number of companies that raise a first round of funding in Europe in a given year as the denominator. Based on the current volume of around 1,500 first rounds of funding per year in Europe, it's reasonable to expect Europe to produce 20+ $1B+ companies per year, every year.

Projected number of $1B+ potential companies started per year in Europe by conversion rate and by volume of first rounds

LEGEND
- 1.10%
- 1.20%
- 1.30%

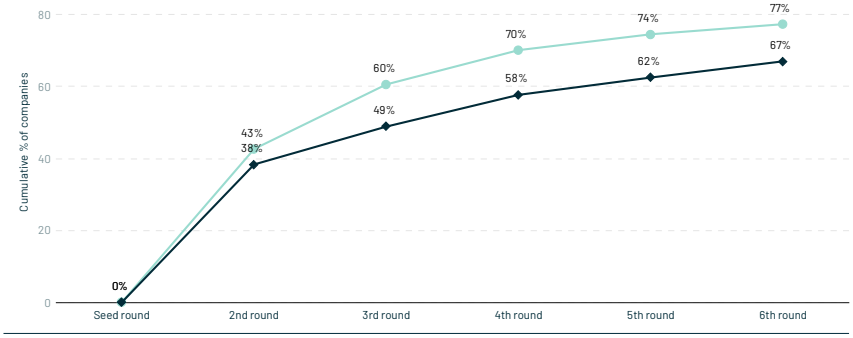


SOURCE: dealroom.co

- The reality is, however, that most companies do not make it to becoming a unicorn. In fact, 43% of companies do not make it past the first round of funding. Eventually, 77% of companies end up out of business or self-sustaining, i.e. not raising any further rounds of funding and also not finding a path to exit either via M&A or IPO.

Cumulative share of companies (%) that do not raise again after each specified round of funding, by region

LEGEND
- Europe
- United States

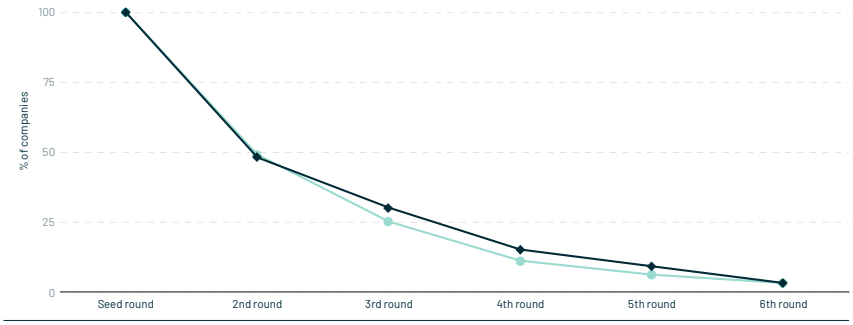


SOURCE: dealroom.co CBINSIGHTS

- The probability of making it through to later and later rounds of funding drops precipitously following the Seed Funding round. While 49% of the starting cohort succeed in raising a second round of funding, only 3% of companies progress through to a sixth round of funding. The drop-off rate by round is broadly similar across Europe and the US, though there are intriguing differences for companies raising their third and fourth rounds of funding, which are raised by fewer companies in the European cohort than in the US cohort. This adds more fuel to the fire that there is a funding gap at the post-Series A, in-between phase of growth around the Series B and Series C stage.

Share of companies (%) that raise each subsequent round of funding, by region

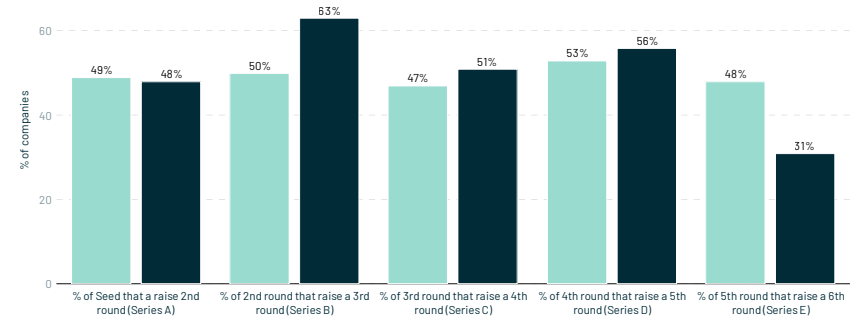
LEGEND
- Europe
- United States



SOURCE: dealroom.co CBINSIGHTS

These interesting differences in the relative probability of raising a subsequent round of funding are more easily represented by looking at the share of companies at each stage that goes on to raise the next sequential round. The most significant divergence is for companies seeking to raise a third round of funding (Series B), though it is also clear that the probability of successfully raising a fourth (Series C) or fifth (Series D) round of funding is also somewhat lower in Europe versus the US. Interestingly, if companies do succeed in making it through these later growth stages, the probability of then raising a sixth round is very high. It is important not to overreach in analysing the data, but one theoretical argument could be that Europe's strongest companies survive the funding gap at Series B/C and that, when they emerge, they are then able to tap into more readily available pools of capital at the Growth Equity stage (Series D+) where the funding market is more liquid.

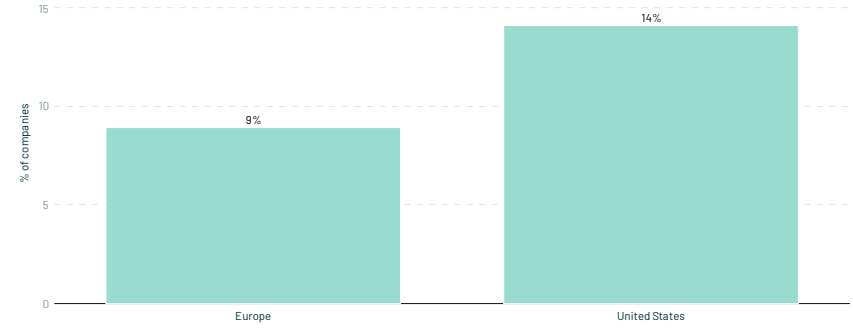
Share of companies (%) that raised the specified round that went on to raise a subsequent round, by region



SOURCE: dealroom.co CBINSIGHTS

It's often said that European companies sell out earlier, but the cohort analysis would suggest this isn't the case. In fact, US companies are actually more than 50% more likely to exit after a first round of funding. This should not be seen as a negative; in fact, it could be interpreted as evidence of both a willingness to "fail faster", and a healthy exit environment. Arguably, Europe stands to benefit from more liquid and earlier recycling of talent and capital. In fact, it could be argued that Europe's challenge is not that European tech companies exit too early, but that they don't exit early enough.

Share of companies (%) that exit after the first round of funding by region



SOURCE: dealroom.co CBINSIGHTS

EARLY EXIT

50%

US companies are actually 50% more likely to exit after a first round of funding than European ones

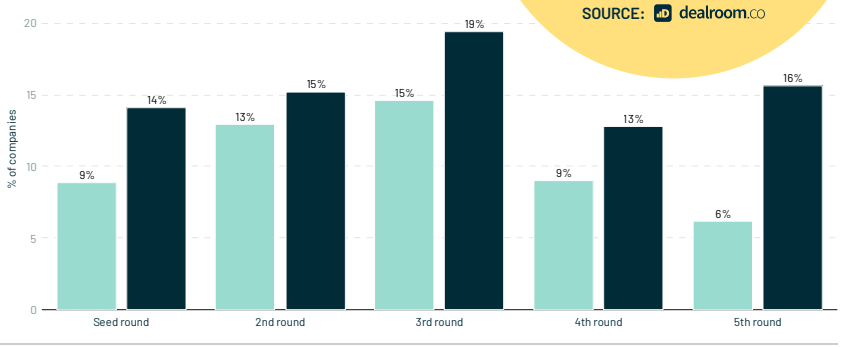
SOURCE: dealroom.co

- The probability of an exit after each round of funding is lower for the European cohort at every step of the journey compared to the US cohort.

Share of companies (%) that exit after the specified round without raising again by region

LEGEND

- Europe
- United States



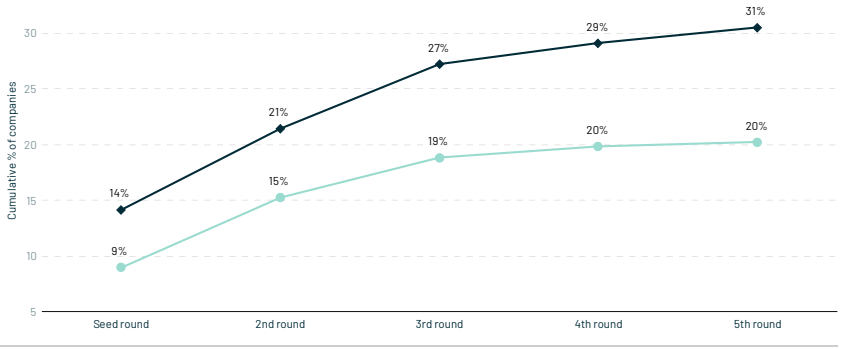
SOURCE: dealroom.co CBINSIGHTS

- Looking at the cumulative development of the share of companies within each cohort that exit after each successive funding round shows how the delta in terms of exit likelihood starts with a meaningfully large gap from the outset and grows increasingly larger over time.

Cumulative % of companies that have exited after each specified round, by region

LEGEND

- Europe
- United States

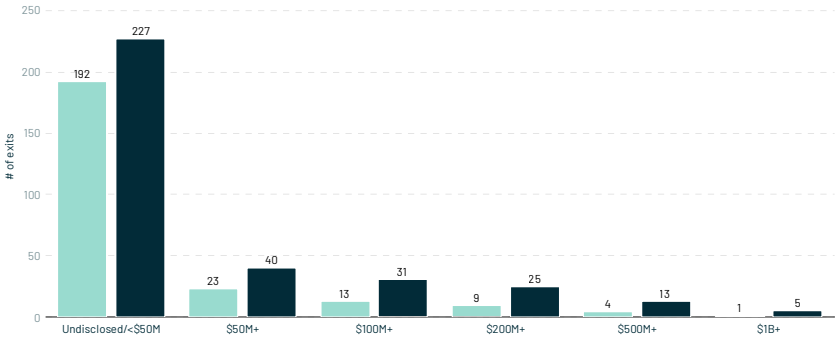


SOURCE: dealroom.co CBINSIGHTS

While exit valuations are undisclosed most of the time, it's interesting to look at the relative volume of exits at different exit value thresholds. The European cohort includes one exit of $1B+, four over $500M, and 13 at $100M or more. Unsurprisingly, the vast majority of exits are small in scale and it's a reasonable assumption that the vast majority of exits with undisclosed valuations are also on the smallest end of the exit range (i.e. less than $50M). Nonetheless, exits of any size are crucial to the ecosystem given the role that they play in driving liquidity to enable the systematic recycling of experienced talent and capital to help build and fund new generations of companies. Several companies in this cohort that exited meaningfully, but perhaps not with giant outcomes, such as Quandoo ($219M), Wunderlist (<$200M) and La Nevera Roja (~$100M) have gone on to have an outsized impact on their local ecosystems through their alumni network, leading to new generations of startups (e.g. Pitch, Superlist) or VCs (e.g. Cherry Ventures, Samaipata Ventures).

Number of exits by exit value and by region

LEGEND
- Europe
- United States

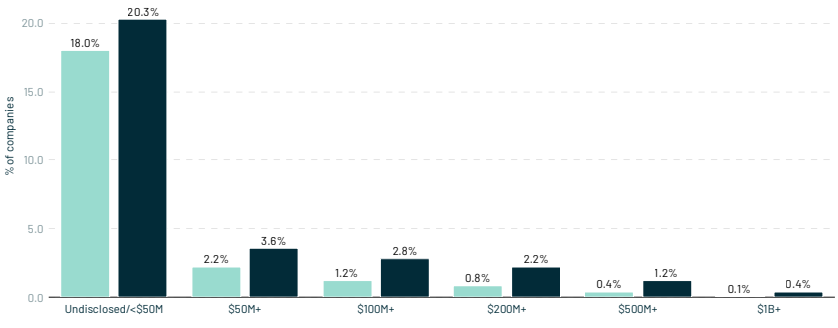


SOURCE: dealroom.co CBINSIGHTS

Looking at the distribution of exits by exit value as a percentage of the initial starting cohort further demonstrates that the US market is more liquid at every scale of exit, whether for large $1B+ exits or for smaller exits in the sub-$50M range.

Share of companies (%) that exited at different exit values, by region

LEGEND
- Europe
- United States

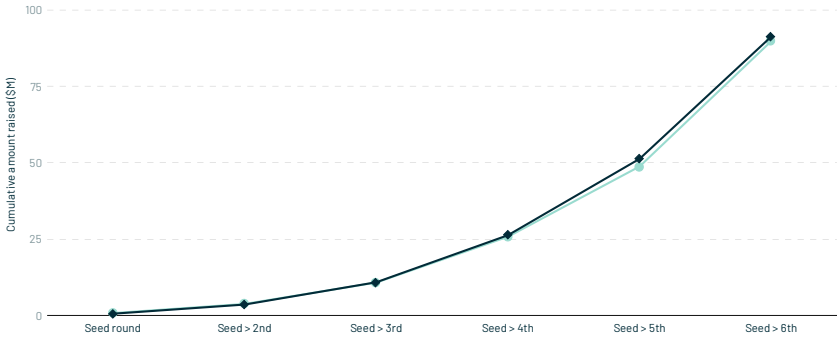


SOURCE: dealroom.co CBINSIGHTS

- The cohort analysis also allows us to compare the funding journey of the average company. The median amount raised across six rounds with the cohort is $90M, very similar to the funding journey of the median US company.

Cumulative amount raised ($M) (based on median) by companies after raising each subsequent round of funding by region

LEGEND
- Europe
- United States

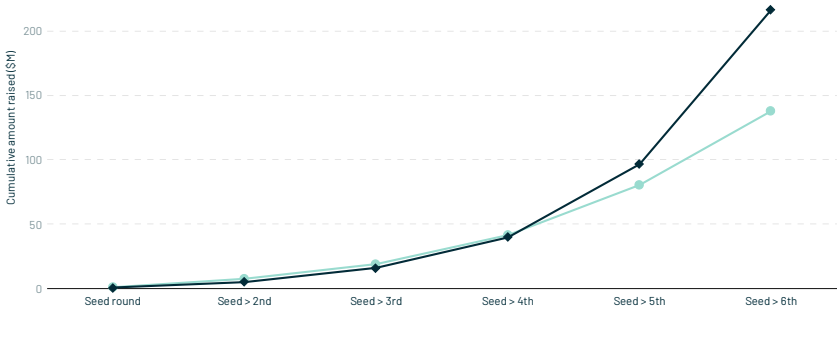


SOURCE: dealroom.co CBINSIGHTS

- Taking the mean, however, shows a big difference. The mean funding raised across six rounds increases to $137M in the European cohort, compared to $216M for the US cohort. This implies that a smaller number of companies raise significantly larger amounts that distort the average. One possible explanation for this could be that US founders and investors double down much more aggressively as they scale and emerge as potential category winners, thereby succeeding in raising significantly greater sums of capital.

Cumulative amount raised ($M) (based on mean) by companies after raising each subsequent round of funding by region

LEGEND
- Europe
- United States

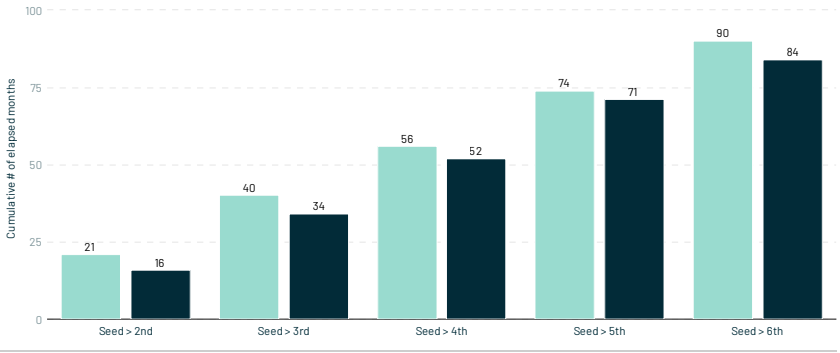


SOURCE: dealroom.co CBINSIGHTS

- The development of the cohort over time is also interesting. The median company took 90 months (7.5 years) to raise six rounds of funding from initial founding. The trajectory is very similar to that of the median US company, except that US companies tend to raise their first and second funding rounds much faster. There are a few possible explanations. Could it be that US companies are much faster to execute? Or could it be that US investors are happier to invest earlier? Or, perhaps most likely, is it because more companies exit the funnel faster in the US - and therefore do not drag down the average time taken to raise the next round?

Cumulative number of elapsed months (based on median) between each subsequent round of funding by region

LEGEND
- Europe
- United States



SOURCE: dealroom.co CBINSIGHTS

04.2
$1B+ Companies

- The number of European tech companies scaling to a $1B+ valuation continues to grow at an impressive speed. Europe saw the creation of 18 new $1B+ tech companies in 2020, including its 200th overall, and now has 208 in total.

$1B+ COMPANIES

208

tech companies scaled to $1B+ in Europe

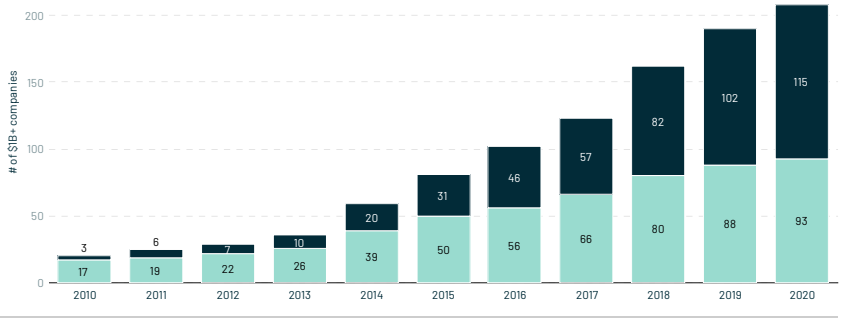
Number of VC-backed and non-VC-backed $1B+ European tech companies per year (cumulative)

LEGEND

- # of non-VC-backed companies
- # of VC-backed companies

NOTE:

Based on data up to 15 November 2020.



SOURCE: dealroom.co

- An important discussion in European tech in 2020 has been the role of alternative sources of funding for startups. Looking at companies started in Europe since 2010 that have reached a $1B+ valuation, venture capital is now the funding journey of choice for the vast majority. But it is also true that many companies still reach that scale without taking a single dollar of venture capital. In fact, it is likely that there is a sample bias in this dataset as these companies are typically growing outside of the "mainstream" tech industry and remain "hidden giants". This is explored in further details in the article on "Private Equity".

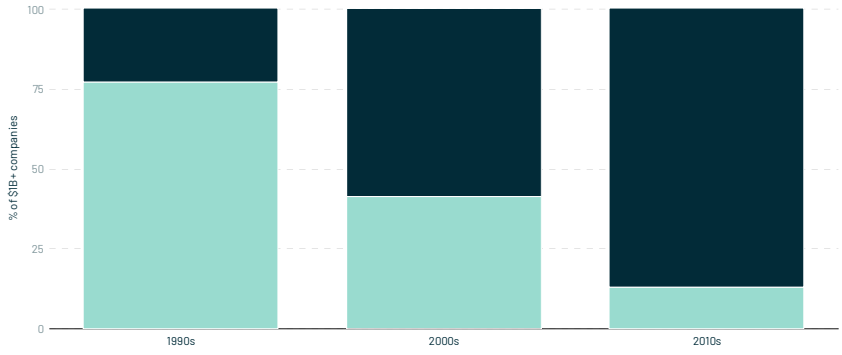
Share of VC-backed and non-VC-backed $1B+ European tech companies (%) per founding year decade

LEGEND

- # of non-VC-backed companies
- # of VC-backed companies

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. Based on data up to 15 November 2020.



SOURCE: dealroom.co

> Allegro. Visma. Sinch. Infobip. Idealista. Freepik. Silae. Adevinta. I can keep going. There are two common threads that run along these [non VC-backed] companies – they are incredible businesses and they are underreported.
>
> On one end, they show us that building and scaling a software company is doable without VC money. We've gotten ridiculously good at celebrating press releases but tech is not just TechCrunch. On the other end, these companies usually lack what makes VC-backed tech companies great for European tech.
>
> Going back to Allegro: their IPO was an incredible success story but it won't recycle capital or talent into the Polish or European tech ecosystem in any way whatsoever. The IPO was great for the C-suite and lenders, but not for employees to go on and start or fund new companies.
>
> Both worlds have a lot to learn from each other – but what gives me a dose of optimism is that they are getting increasingly closer, with the Pipedrive / Vista Equity Partners long-term partnership being the perfect example.

Gonz Sanchez
Seedtable
Founder

Shortly after the publication of the 2019 edition of this report, Vinted became Europe's 100th VC-backed company to reach the billion-dollar mark. Since Vinted, a further 15 new companies have reached $1B+ valuations - including 13 in 2020 - amounting to 115 VC-backed $1B+ tech companies in Europe.

VC-BACKED $1B+

115

tech companies in Europe

Number of new and total $1B+ VC-backed European tech companies per year

LEGEND

- Existing
- New in Year

NOTE:

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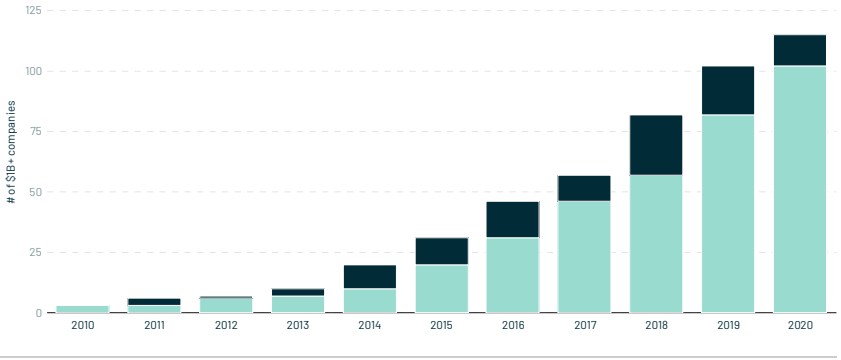


SOURCE: dealroom.co

VC-backed European tech companies reaching a $1B+ valuation in 2020

The 2020 cohort of $1B+ companies consists of an impressive set of 13 VC-backed companies, ranging from electric VTOL jets (Lilium) to an online car marketplace (Cazoo) to a virtual event software company (Hopin). These 13 companies have an aggregate value of nearly $25B.

Transportation
London,
United Kingdom

Transportation
Tallinn, Estonia

Marketplace
London,
United Kingdom

Enterprise Software
Paris, France

Enterprise Software
London,
United Kingdom

Transportation
Munich, Germany

Enterprise Software
Amsterdam,
Netherlands

Marketplace
Paris, France

Fintech
Amsterdam,
Netherlands

Enterprise Software
Tallinn, Estonia

Security
London,
United Kingdom

Enterprise Software
Lisbon, Portugal

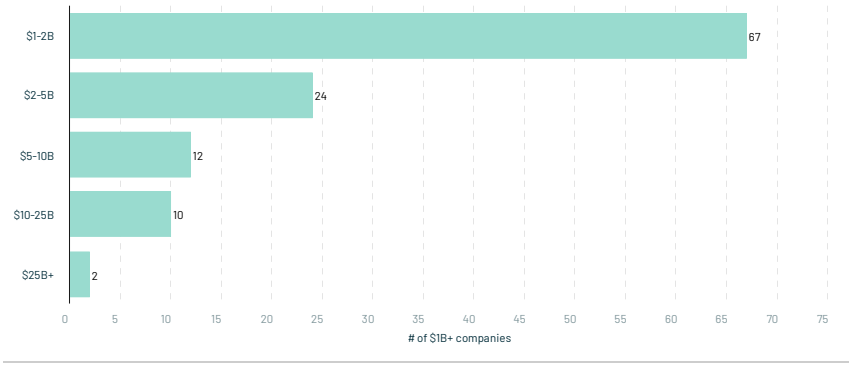
Enterprise Software
Dublin, Ireland

Europe's VC-backed tech companies continue to scale to ever greater levels. Adyen and Spotify have both reached $50B+ valuations, having grown significantly in the public markets in 2020. Behind those two giants of European tech, there are a further 10 VC-backed companies that have now scaled beyond the $10B mark.

Number of $1B+ VC-backed European tech companies by valuation group

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. Based on data up to 15 November 2020.



SOURCE: dealroom.co

A sizeable portfolio of European startup giants now stand ready to capture the IPO landscape and meet pent up demand.

Ed Lukins
Orrick
Partner, Capital Markets

Whilst Europe has originated more than a third of the world's startups, it accounts for disproportionally smaller count of unicorns globally. This gap is in many ways attributable to a previously limited supply of large, late-stage risk capital pools. Fortunately, this is changing rapidly. Driven by the growth in recent years of European funds writing bigger checks at larger valuations and an influx of U.S. and Asia-based funds looking for quality and value – the stable of European unicorns is growing - with an additional 14 in 2019 and 18 in 2020. A sizeable portfolio of European startup giants now stand ready to capture the IPO landscape and meet pent up demand.

Additionally, the SPAC or Special Purpose Acquisition Company, an exit of choice right now in the U.S., is beginning to find its way across the Atlantic. These are not novel structures, but the latest batch is backed by top-rate financial institutions and serial investors seeking highly sought-after targets. Orrick has helped navigate companies through a string of these deals and we expect to see SPACs become a driver of European exit planning. As a result, we're optimistic that next year's IPO metrics will tell a quite different story.

Another first for European tech was the christening of two decacorns, i.e. private VC-backed tech companies with a valuation of more than $10B. Sweden's Klarna and Romania's UiPath both hit this milestone during 2020, making them the first and second most valuable private, VC-backed European tech companies.

MOST VALUABLE FINTECH

$11B

making Klarna the most valuable private European fintech company

Top 10 VC-backed $1B+ private European tech companies

NOTE:

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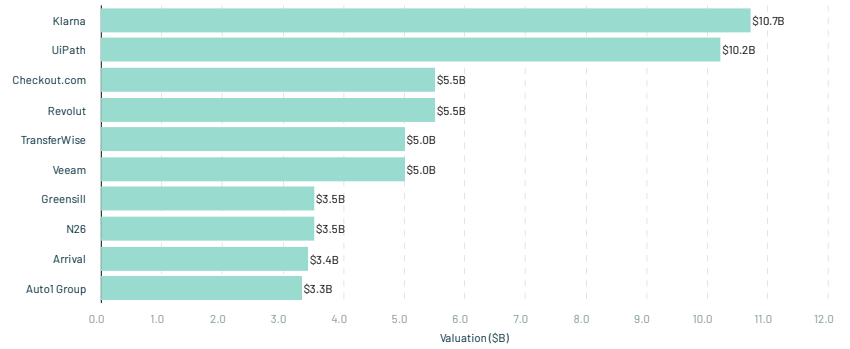


SOURCE: dealroom.co

Fastest companies to scale to $1B+ valuation by months from founding

Skype held the title of Europe's fastest ever VC-backed company to hit a billion-dollar valuation for 15 years. This record was broken twice in just a few months in 2020. First, Cazoo hit a billion-dollar valuation in June, 18 months after being founded. Hopin then broke this record in November 2020, having scaled to a $2.1B valuation in 17 months.

hopin

17 months
months to reach $1B+ valuation in 2020

CAZOO

18 months
months to reach $1B+ valuation in 2020

Skype

29 months
months to reach $1B+ valuation in 2005

GRAPHCORE

31 months
months to reach $1B+ valuation in 2018

northvolt

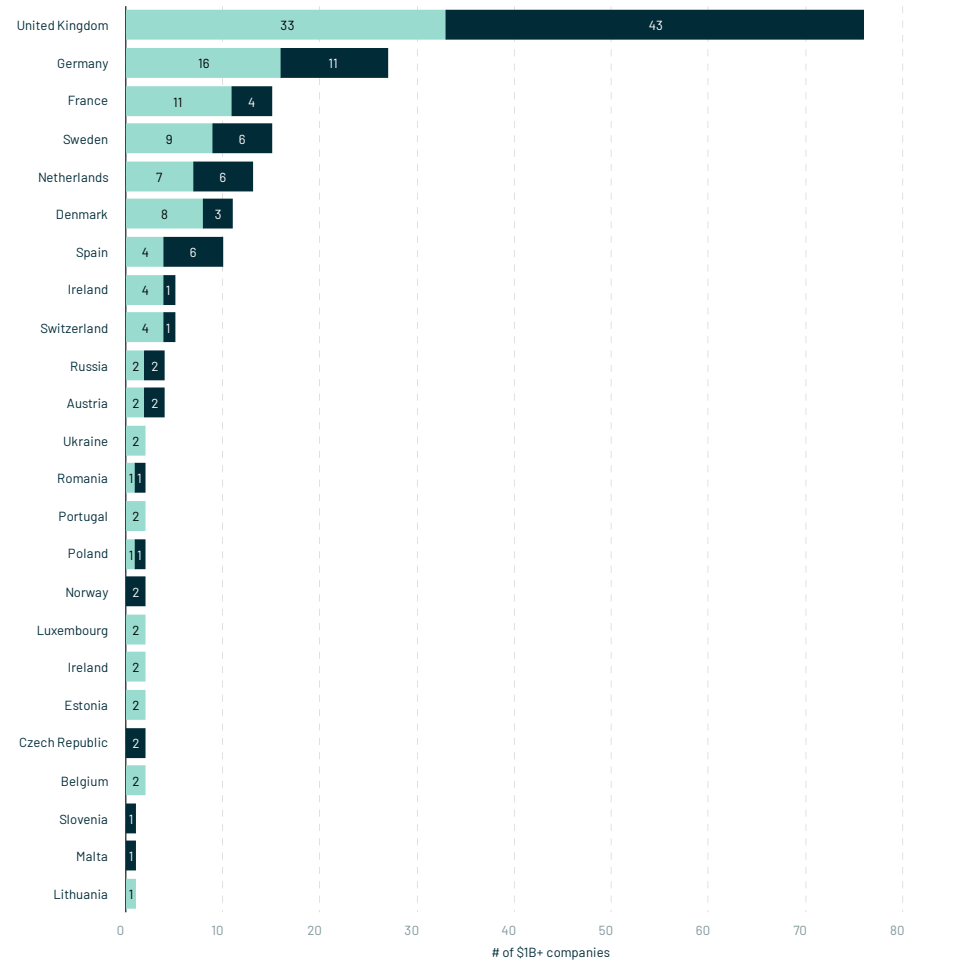
32 months
months to reach $1B+ valuation in 2019

Europe has now seen $1B+ tech companies emerge from 24 countries all around the region. It's a remarkable validation of the belief that great companies can come from anywhere.

Number of $1B+ European tech companies by country of origin and backing status

LEGEND

- # of VC-backed companies
- # of non-VC-backed companies



NOTE:

Based on data up to 15 November 2020.

SOURCE: dealroom.co

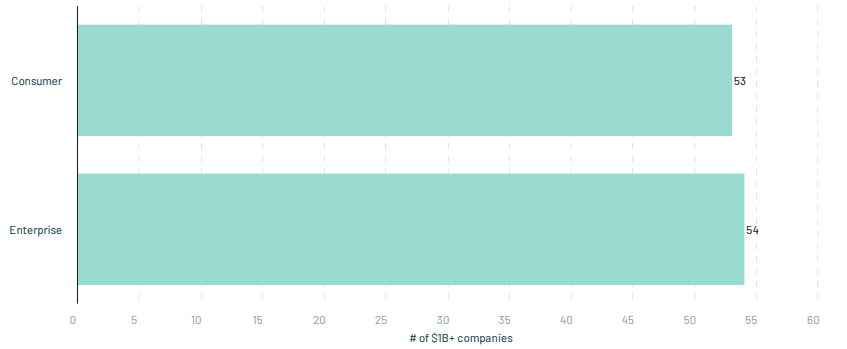
Several Dutch startups are now unicorns or getting closer to it, which makes The Netherlands a more obvious choice for worldwide talent to start or grow their career.

Robert Gaal
Cooper
Co-Founder

Several Dutch startups are now unicorns or getting closer to it, which makes the Netherlands a more obvious choice for worldwide talent to start or grow their career. But homegrown startups and more US tech companies have called Amsterdam home in the last few years. This also puts a career in tech on the map for talent from traditional educational backgrounds, agencies, or corporates. For founders, there is a serious lack of capital from investors with operational experience. Most capital is also being invested beyond the seed stage. More established founders and operators have to start writing checks. (And by checks, I just mean wire transfers. What are we, Neanderthals?)

Europe first built a reputation in consumer, but the rise of European SaaS has helped to transform the region's role in the global enterprise software market. In a year of so many milestones, 2020 also marks the year that the number of VC-backed $1B+ enterprise-focused European tech companies finally caught up with consumer. The count, as of report publication, stands at 53-54 with Pipedrive breaking the tie.

Number of $1B+ VC-backed European tech companies, enterprise versus consumer



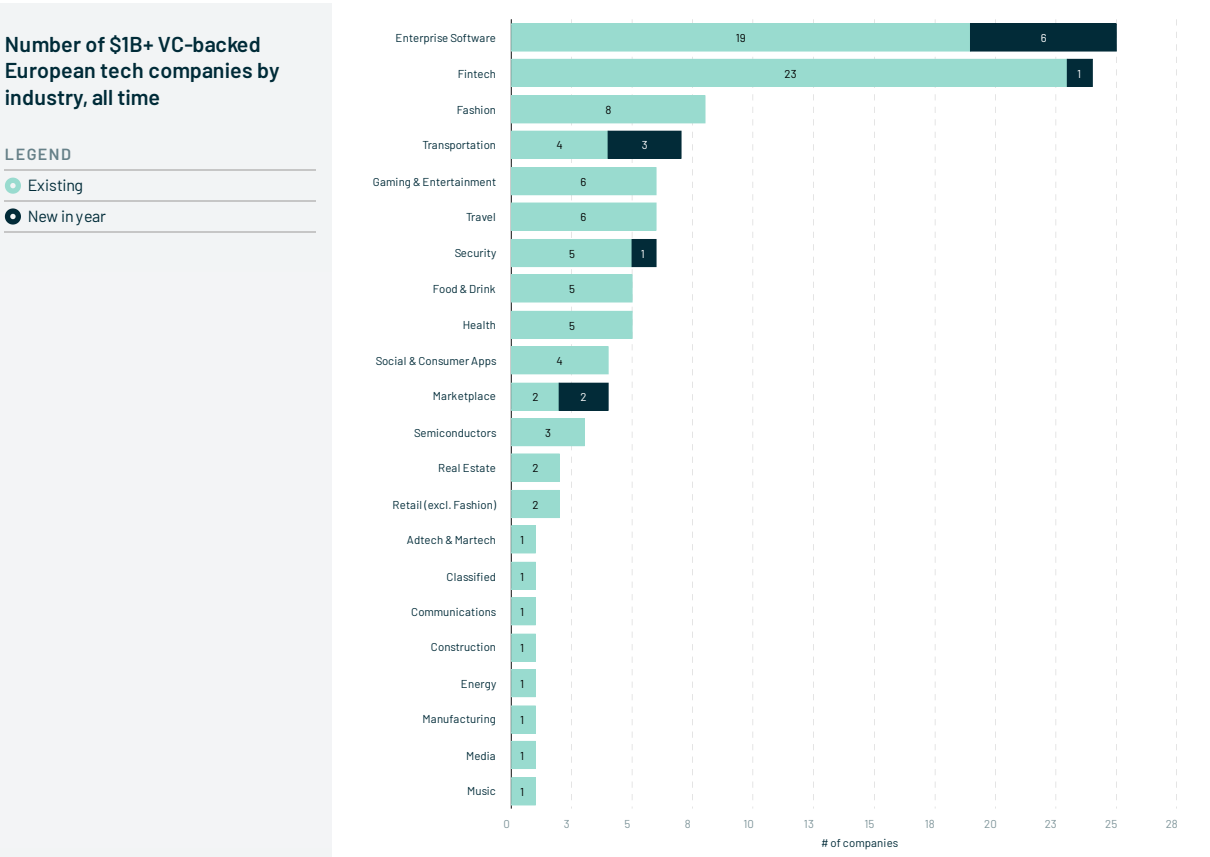
NOTE:

Based on data up to 15 November 2020.

SOURCE: atomico

The rise of SaaS in Europe is exemplified by the number of new SaaS unicorns minted in 2020. Six new billion-dollar SaaS companies emerged this year, beyond any other industry and placing Enterprise Software at the top of the list for the first time. These included companies such as Dataiku, MessageBird, Pipedrive and Snyk.

Number of $1B+ VC-backed European tech companies by industry, all time



NOTE:

Based on data up to 15 November 2020.

SOURCE: dealroom.co

> We grew MessageBird to a €100 million business, with no outside funding or investors whatsoever, until 2017 when we secured our first VC financing. Since then, MessageBird's team has been focused on building a world where we can talk to businesses the way we talk to our friends, through all the same channels like WhatsApp and SMS. We've achieved incredible results, but we still have a long way to go. This year, we were able to raise additional capital through private markets, and people ask me when we're going to IPO. We are operating at the highest level of financial integrity, run as an IPO company, but we will ring the bell when it makes sense.

Robert Vis
MessageBird
Founder

- 53 VC-backed European tech companies founded during the last decade (2010s) have scaled to $1B+ valuation. As is to be expected, those companies overwhelmingly remain in the private markets. More than half of the companies founded in the 90s, 2000s or 2010s have already either made their transition to the public markets or have been acquired.

COMPANIES FOUNDED IN LAST DECADE

83%

of $1B+ VC-backed tech companies founded in the 2010s are still private

Share of $1B+ VC-backed European tech companies (%) by ownership status and founding year decade

LEGEND

- Private
- Public
- Acquired

NOTE:

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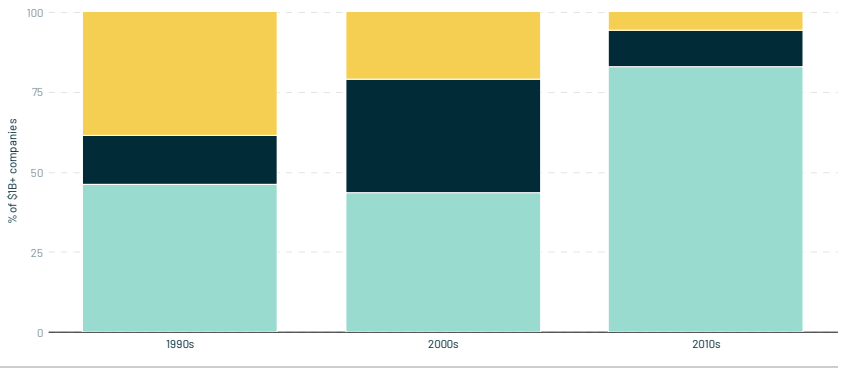


SOURCE: dealroom.co

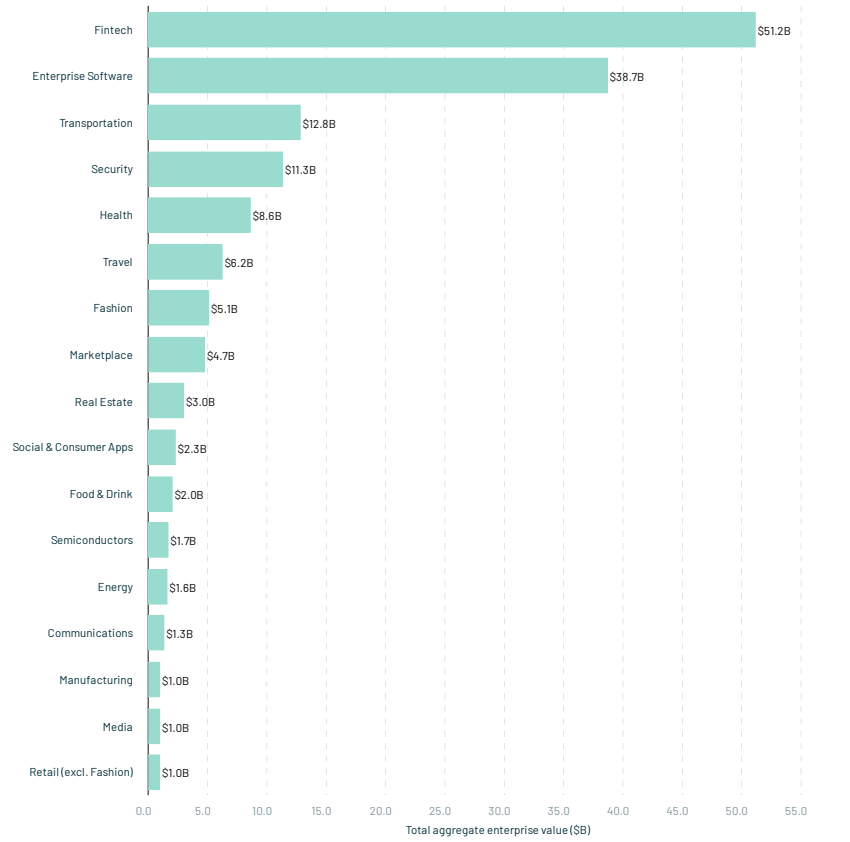
> **Liquidity is a key concern for VC investors globally as companies remain private longer and growth capital is increasingly available for companies willing to scale and preserve their independence.**

Xavier Coirbay
Sofina Group
Executive Committee

That being said, Europe-based venture firms should be able to improve exit prospects over time. M&A is the most frequent exit route for VC backed companies. In a low interest rates and low growth environment where technology is key for every business, strategic acquirers are likely to be active in the coming years and attractive VC-backed companies from Europe could be on their shopping list. The best companies will also expand internationally and have access to capital from global investors. They could eventually qualify for IPOs in Europe or in the US. The development of more active secondary markets is another possibility. Whatever happens, if the European ecosystem keeps producing an increasing density of emerging companies with sustainable business models and enduring growth prospects, I trust liquidity opportunities will follow. It is still early days compared to the US and we need to be patient.

Europe has a healthy pipeline of companies preparing to go public, with many of the region's privately-held $1B+ tech companies having signalled their intent to IPO in 2021. The pipeline today now exceeds $150B based on the combined enterprise value. Europe's private fintech companies alone now account for $50B in combined enterprise value. It's much less a question of whether these companies will list, but of when and where. Will they go public in Europe or head to the US?

Total aggregate value ($B) of private VC-backed $1B+ European tech companies by industry



NOTE:

Based on data up to 15 November 2020.

SOURCE: dealroom.co

The rise of this growing cohort of European unicorns on the ecosystem has had a dramatic impact on the total value of the European tech ecosystem. The total estimated enterprise value of European tech companies founded after 2000 in the public and private markets has ballooned to almost $1 trillion ($961B), up 5x from $191B in 2016. The vast majority of this value remains in the private markets today ($573B), which have seen the creation of more than $400B in enterprise value since 2016.

ECOSYSTEM VALUE

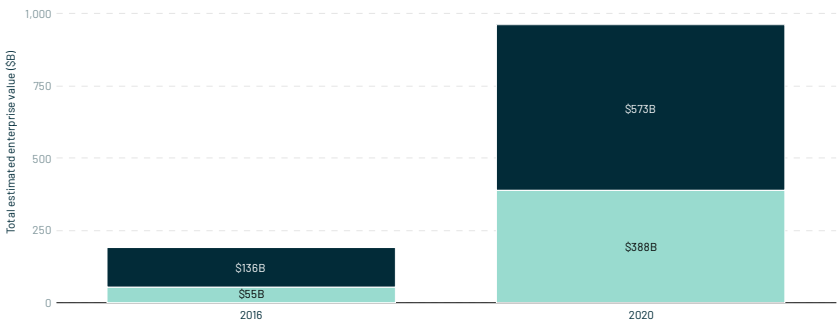
5x

increase in the size of the ecosystem value since 2016

Total estimated enterprise value ($B) of European tech companies founded after 2000, in private and public markets

LEGEND

- Public
- Private



NOTE:

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SOURCE: dealroom.co

Europe's startup ecosystem has developed significantly over the past decade, with unprecedented growth in funding, jobs, and valuations. But there are nonetheless still challenges ahead such as a lack of exit opportunities, including IPOs or M&A.

Young Sohn
Samsung Electronics
President and Chief
Strategy Officer

This is mainly because top platform companies are missing in the European ecosystem and because there is a different historical experience with investing in the public stock market.

Another challenge is fragmentation. Europe is not a single, unified market; it is an aggregation of 27 markets in the EU, and 51 markets across the continent, each with its own language, entrepreneurial culture, ecosystem, regulation, and sometimes even currency. While this of course is one of the factors that makes the market so vibrant, Europe is much more complex compared to the US when it comes to scaling a company as it involves operating across multiple geographies.

Finally, diversity and inclusivity are sizable challenges, but that is something that all geographies face! On the whole, the European startup scene is emerging from the shadows of Silicon Valley, successfully developing globally-known innovations and businesses for consumers and enterprises alike. This is inspiring a new generation of founders and entrepreneurs and fuelling this growth in years to come.

The aggregate value of private European tech companies has grown to more than $570B, including dozens of companies that have scaled to $1B+ valuations and are still private. These companies represent the pipeline of future IPO candidates. An important consideration that will influence the decisions of these companies on if and where to list is their expectation of how their value proposition and business model will be understood by public market investors. To that end, we have mapped the distribution of public European tech companies by category with the distribution of private $1B+ European tech companies with a view to identifying if the public companies have depth of expertise, or if there may be gaps.

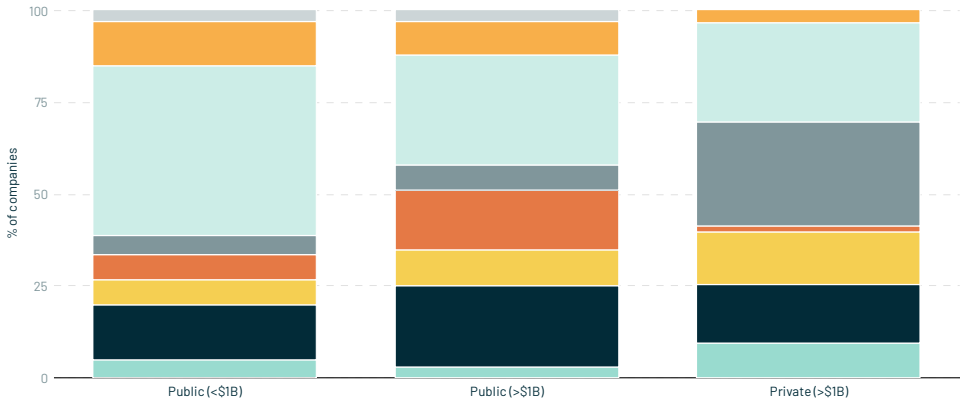
Share of European public tech for companies <$1B, >$1B versus private companies >$1B

LEGEND

- Tech Hardware
- Online Commerce
- Consumer Internet
- Semiconductors
- Fintech
- Enterprise Software
- Games & Interactive Entertainment
- Internet Advertising & Direct Marketing
- Others

NOTE:

Numbers may not add up to 100 due to rounding. S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



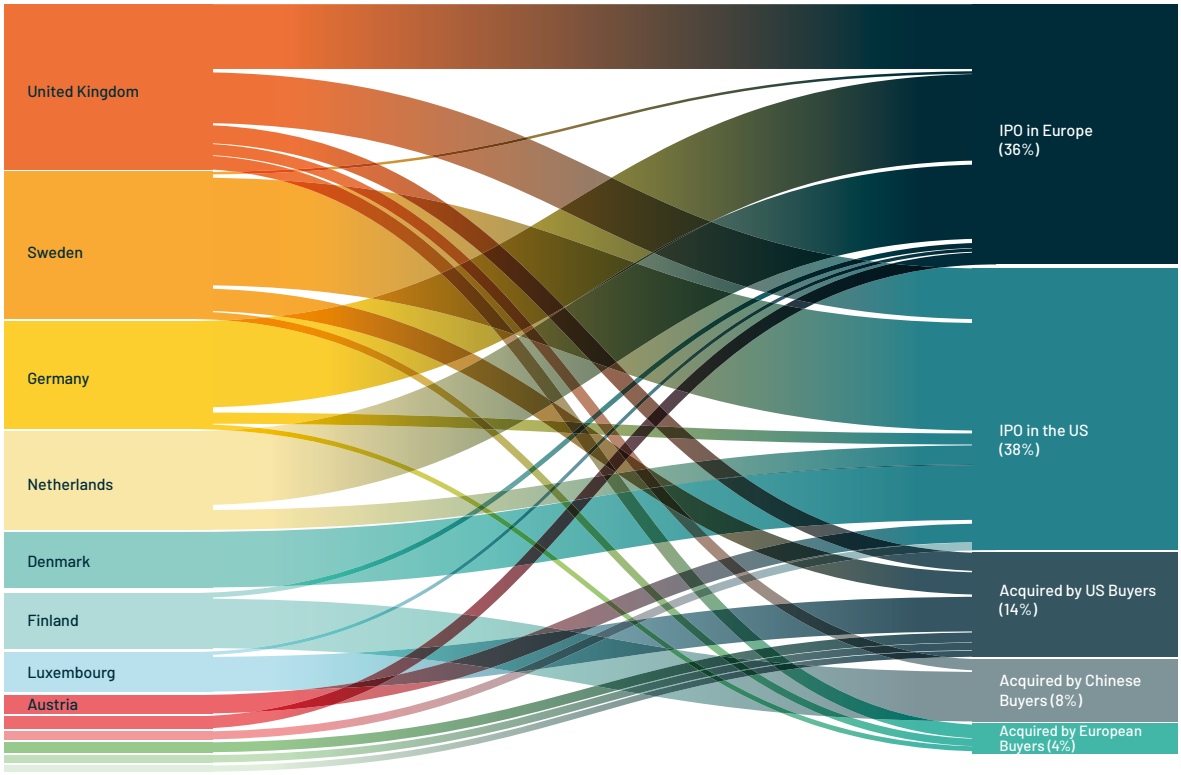
SOURCE: S&P Global atomico Horsley Bridge Partners

An important question for the European ecosystem is what happens to the value created by its leading tech companies. Do they stay independent and transition into the public markets? And, if so, where do they choose to list? Do they end up being acquired? If so, by whom?

These questions matter as they help to understand where and by whom future value created by these companies will be captured. To try to answer this, and working in partnership with Horsley Bridge, this analysis sets out the exit route of every VC-backed European company that has exited at a billion-dollar valuation or higher covering more than 50 companies.

The majority of value has transitioned to the public markets with the IPO exit route accounting for 74% of exit value. Importantly, from the perspective of retaining value in Europe, the US accounts for the largest share of exit value at a combined 52% of the total across both IPOs that listed in the US and acquisitions by US buyers.

VC-backed $1B+ European tech companies value flow by HQ country and by exit route



SOURCE: S&P Global atomico Horsley Bridge Partners

NOTE: S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

People used to wonder if Europe could create $10 billion companies. Now the question is: what will be the first $100 billion company?

The past few years have been really exciting for European tech. People used to wonder if Europe could create $10 billion companies. Now the question is: what will be the first $100 billion company? We're seeing more and more world-class tech companies being formed across the region, by ambitious founders who want to win on a global scale. That's why Sequoia is doubling down in Europe and building our local team, to meet these founders as early as possible and be a stronger partner for our portfolio companies on the ground.

The rich pool of technical talent means Europe isn't just catching up, it's leading the way, particularly across sectors like enterprise software, deep tech and fintech. At Sequoia, we're excited to grow our presence in the region, privileged to have received such a warm welcome from the ecosystem and looking forward to partnering with many more market leaders with roots in Europe.

Luciana Lixandru
Sequoia Capital
Partner

04.3

Public Markets

The public markets are home to the world's largest and most mature technology companies that have been built over several generations of companies and technology cycles, over many decades.

As a result, they offer important insights to understand the historical rise of technology around the world and, importantly, Europe's position relative to other major countries and regions.

- The total value of global tech companies has soared to nearly $20T ($19.8T), as measured by market capitalisation. The global technology order is dominated by the US ($12.8T), though China's momentous rise in tech means it has produced public tech companies that are now valued in excess of $3.3T. Asia has several other tech powerhouses too, including Taiwan, Korea and Japan that are all home to public tech companies valued at more than $0.5T. There are three European countries that make the Top 10 with the Netherlands ($0.5T), Germany ($0.3T) and the UK ($0.1T).

GLOBAL TECH VALUE

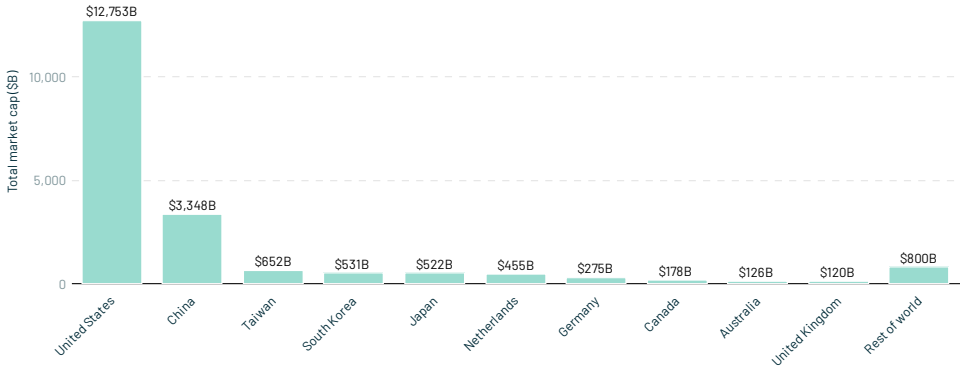
$20T

total market capitalisation for global tech companies

Total market cap ($B) of global public tech companies for top 10 country by company HQ

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

- Put differently, a total of 96% of all value created in the public markets by global tech companies is concentrated in just 10 countries. The US alone accounts for just under two-thirds of the $19.6T of global tech market cap (65%), while China accounts for a further 17%. There are no other countries that exceed a 5% share and just seven countries globally can claim more than a 1% of global tech market cap in the public markets.

TECH VALUE CONCENTRATION

96%

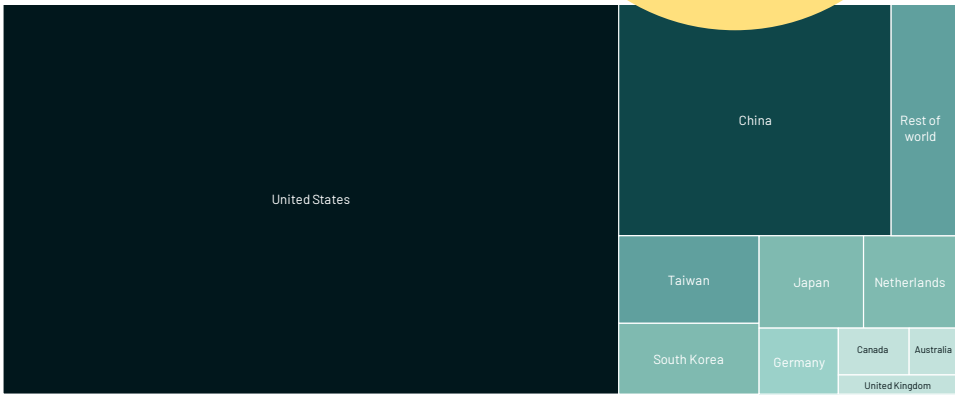
of the total market capitalisation of global tech companies is concentrated in just 10 countries

SOURCE: atomico

Share of total market cap (%) of global public tech companies of top 10 country by company HQ

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

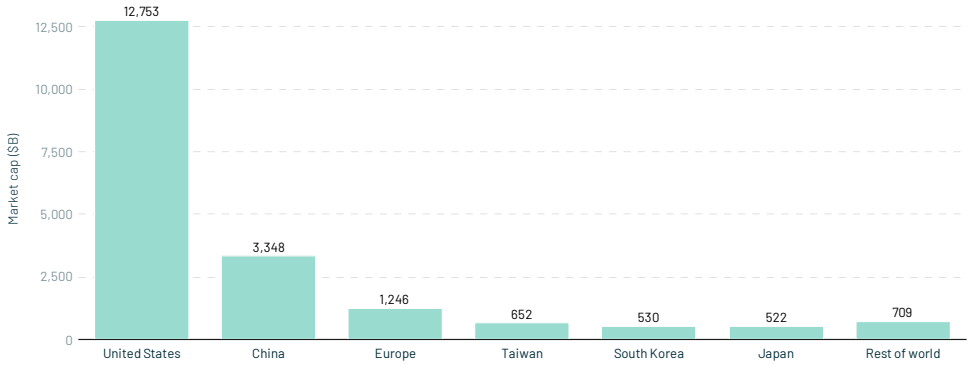


SOURCE: London Stock Exchange S&P Global

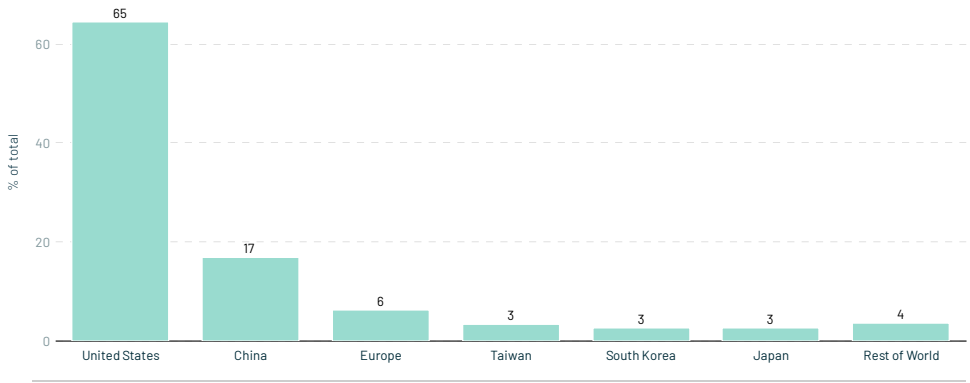
Europe's tech ecosystem is, of course, comprised of many separate countries, but it does operate with a large degree of interconnectivity between its human and financial capital markets. Taken together, the total value of public European tech companies exceeds $1.2T, placing Europe at a distant third place behind the US and China with a share equivalent to 6.3% of total global tech market cap.

Total market cap ($B) of global public tech companies by selected major regions

Market cap ($B)



% of total



SOURCE: London Stock Exchange S&P Global

NOTE:

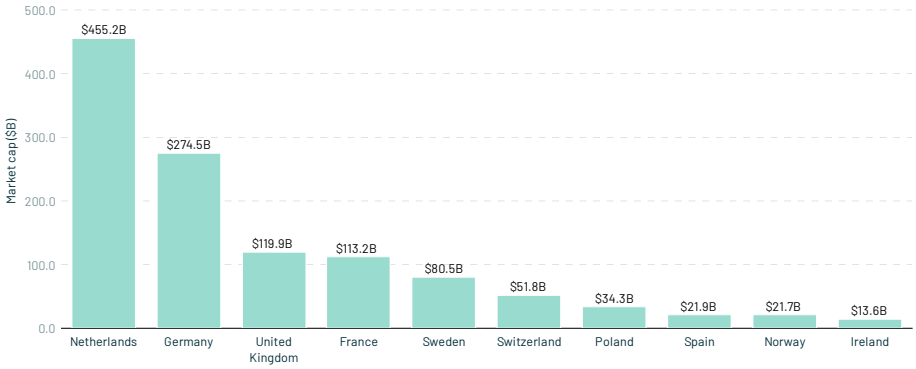
S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

State of European Tech 2020 report launch

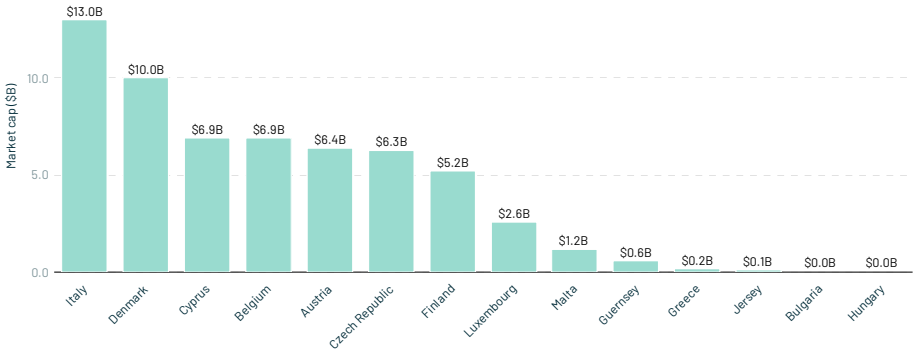
- The Netherlands tops the list of European countries when ranked by the total market cap of public tech companies based on the location of their company headquarters. This is driven by a small number of very large companies, including Prosus, ASML and Adyen. Germany ranks second driven by the scale of companies such as SAP, Infineon, Zalando and Delivery Hero. The top 5 is rounded out by the UK, France and Sweden.

Total public tech market cap ($B) by country of company HQ

Top 10 countries



Other countries



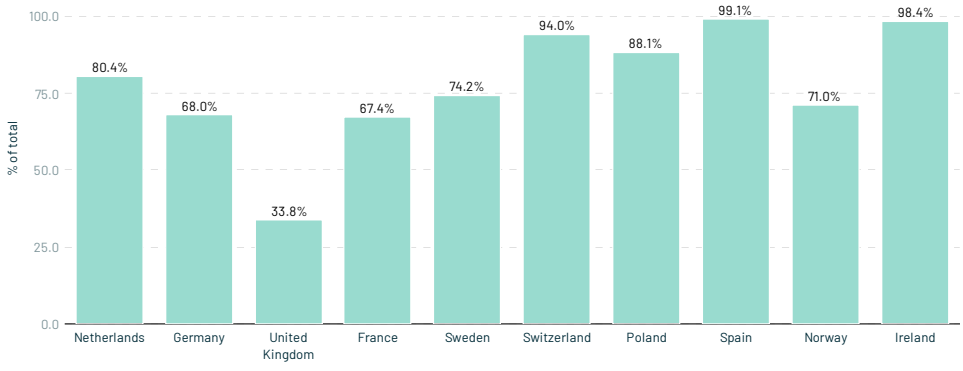
NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

SOURCE: London Stock Exchange S&P Global

- The scale of public market is typically driven in each country by a small number of large tech companies. In the Netherlands, for example, 80.4% of the total market cap of public Dutch companies is accounted for by the top three companies with a Netherlands HQ. The UK has the most distributed public tech market cap. The top three public UK tech companies account for only 33.8% of total market cap, significantly lower than than other country.

Share of market cap held by top 3 largest public tech companies per country based on location of company HQ



NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

SOURCE: London Stock Exchange S&P Global

PUBLIC MARKETS:
LAGGING INDICATOR

44%

of global tech market cap is concentrated in companies founded in the 1980s or even earlier

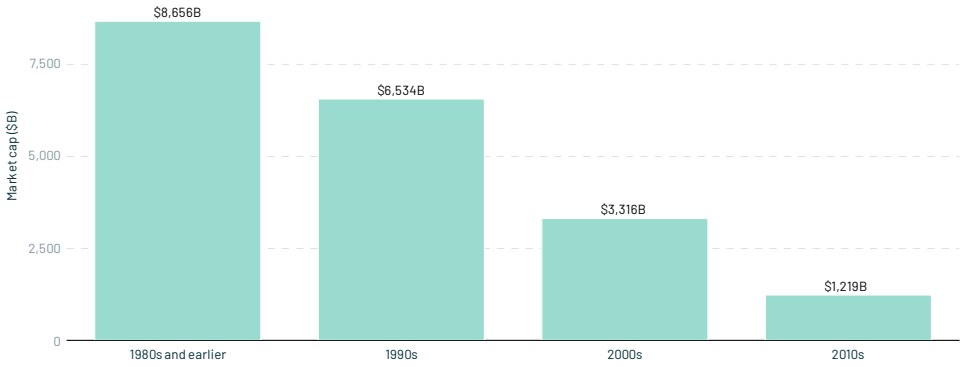
SOURCE: atomico

In some ways, the public markets reflect the historical development of technology, as well as the potential to build enduring companies that scale ever larger over decades. In fact, it is noteworthy that the largest share of global tech market cap is concentrated in companies founded in the 1980s or even earlier, equivalent to 43.8% of total market cap. The public markets are therefore a lagging indicator when considered in the context of the health of the early-stage technology private markets; 76.9% of total global tech market cap today has been created by companies founded in the pre-dotcom bubble era. By contrast, companies founded in the past 10 years unsurprisingly represent just 6.2% of global tech market cap, though those companies have already generated an astonishing $1.2T of value in the public markets.

Total market cap ($B) created by global public tech companies by company founding decade

NOTE:

This does not include $34.9B of total market cap representing companies that had an unclassified founding year, equating to <0.2% of total market cap. S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

In assessing the health of the European tech ecosystem today, it is important to take this time dimension into account when analysing different indicators. One way to switch from a lagging indicator to one that has the potential to serve as a leading indicator of direction of travel is to analyse Europe's share of global public tech market cap using cohorts of companies categorised by their year of founding. If Europe is indeed making forward progress in tech, its share of global public tech market cap should be increasing. The data, sliced in this way, tells a fascinating story. The US is the dominant player across every cohort but has also experienced a clear decline in market share over time. China's rise is also clear to see, but its might as a tech powerhouse dates back as far as the 1990s, much earlier than most might imagine. The European story is most interesting of all. Europe lost its way in tech after the 1980s and seemingly endured a lost decade in the 1990s. But Europe has been fighting back and more recent cohorts show that Europe keeps rising on the global stage.

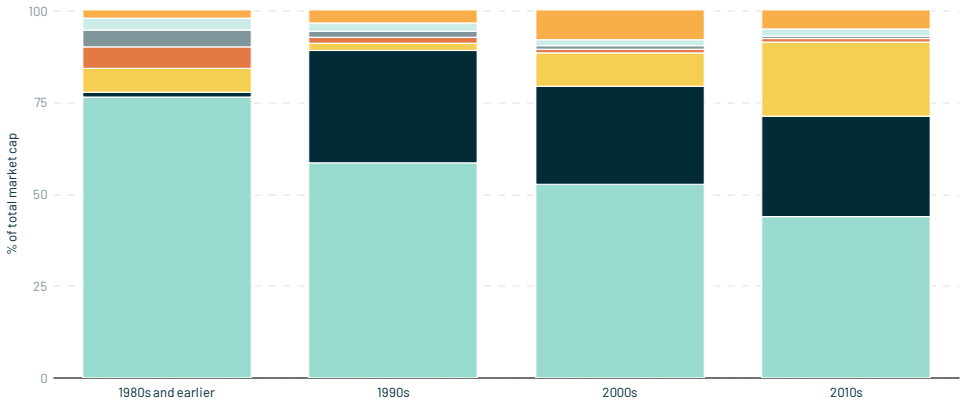
Share of total market cap (%) created by global public tech companies by company founding decade by selected major regions

LEGEND

- United States
- China
- Europe
- Taiwan
- South Korea
- Japan
- Rest of World

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



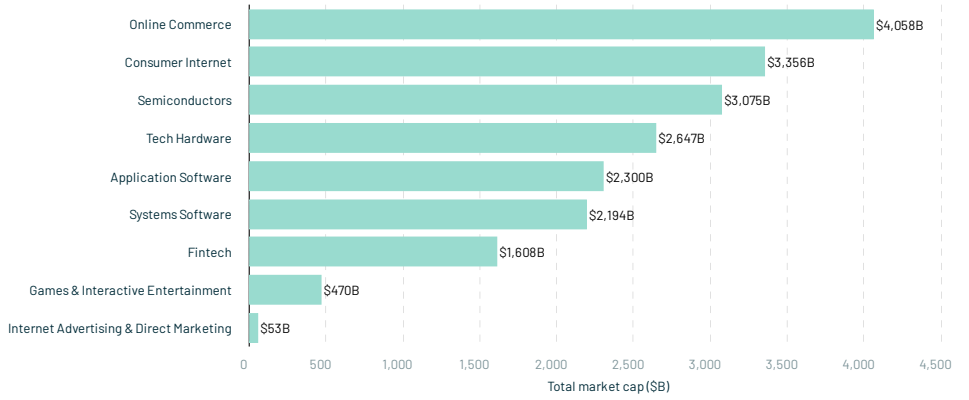
SOURCE: London Stock Exchange S&P Global

To further understand Europe's relative position, it is interesting to examine the scale of tech in more granular categories. The largest single category by global market cap is Online Commerce, having generated companies valued at more than $4T in the public markets. This is followed by Consumer Internet Services ($3.4T), Semiconductors ($3.1T), Tech Hardware ($2.6T) and Application Software ($2.3T).

Total market cap ($B) created by global public tech companies by category

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

The regional share of global market cap of public tech companies in these different categories varies quite significantly. The US is the clear leader in every category other than Games & Interactive Entertainment and Internet Advertising & Direct Marketing. China's share is strongest in categories that are shielded from international competition, including Online Commerce and Consumer Internet.

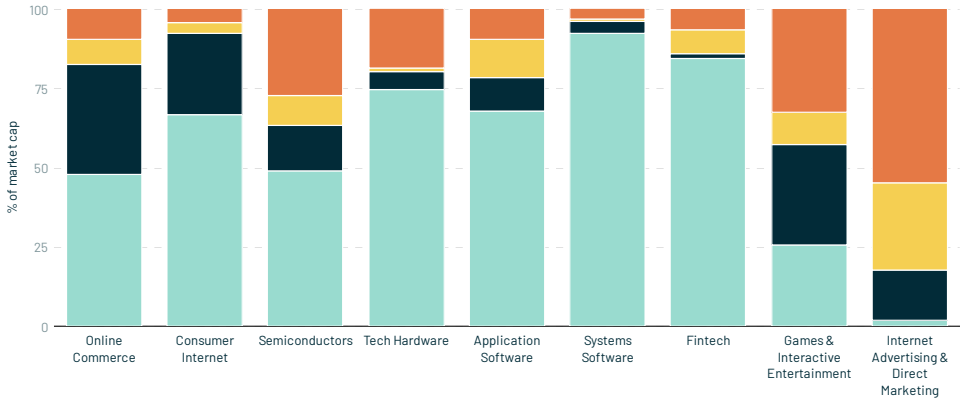
Share of market cap (%) created by global public tech companies by category and selected regions

LEGEND

- United States
- China
- Europe
- Rest of World

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

- Looking at Europe's share of major tech categories more closely, it is interesting to compare this to the relative size of the category (as a share of total global public tech market cap). Europe's market share in important categories such as Consumer Internet, Tech Hardware and Systems Software is very small. In other large categories, such as Online Commerce and Semiconductors, however, European companies account for a significantly higher share.

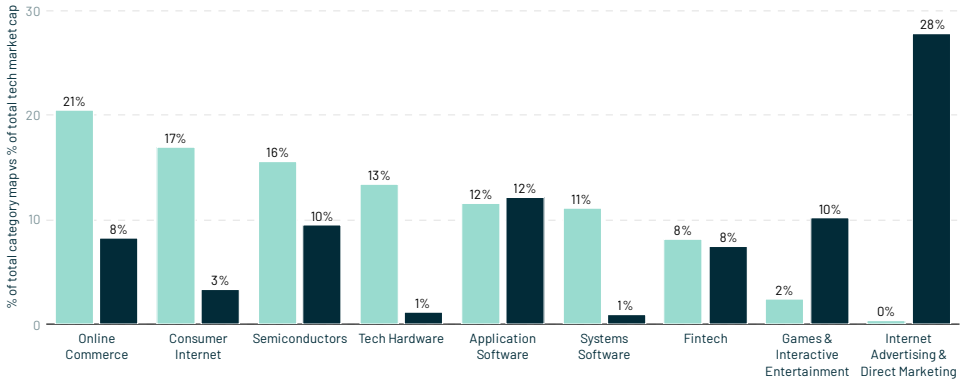
Europe share of total category market cap (%) versus category share (%) of total tech market cap

LEGEND

- Category as % of total tech market cap
- Europe as % of total category market cap

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

- It is important, however, not to only look in the rear-view mirror given the lagging nature of public tech market cap in aggregate. As such, it is again helpful to examine the evolution of European market share across cohorts of companies by founding year. This allows interesting trends to emerge, such as Europe's increasing share of value generated by companies in the public markets in Online Commerce and Consumer Internet. It also shows Europe's decline in the Application Software category. Europe was late into Cloud / SaaS, though Europe's new generation of $1B+ private cloud companies should help to boost Europe's market share when they transition into the public markets.

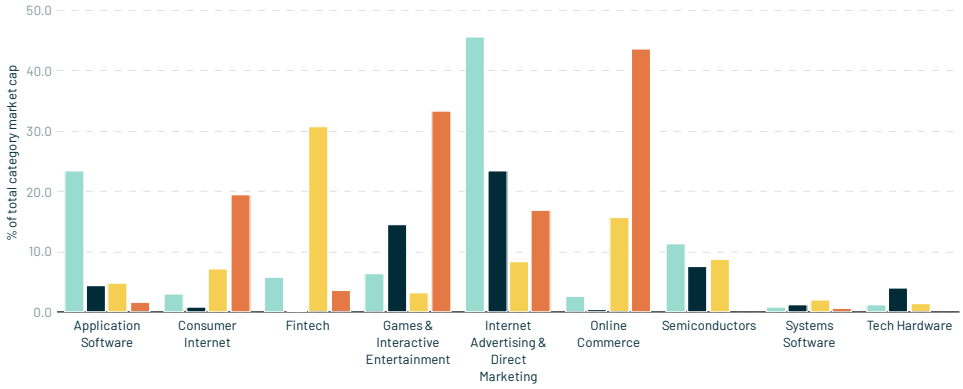
Europe share of total category market cap by founding decade for selected categories

LEGEND

- 1980s & earlier
- 1990s
- 2000s
- 2010s

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

It is not surprising that the US and China are home to the world's largest technology giants. The US now have four tech companies valued in excess of $1T, while China's two largest companies are worth a combined $1.5T, significantly more than the total value of all European public tech companies. Europe's largest public technology company (Prosus, $163B) would not even make the top 10 list for the US, where the entry ticket is $214B. Europe is, however, producing ever larger tech companies and its top 10 are now valued at more than $700B in aggregate.

Top 10 largest public tech companies by market cap ($B) and region

Europe

	Company	Market cap ($B)	Category	VC-backed
1	Prosus	163	Online Commerce	No
2	ASML	152	Semiconductors	No
3	SAP	127	Application Software	No
4	Adyen	51	Fintech	Yes
5	Spotify	45	Consumer Internet	Yes
6	Dassault Systèmes	45	Application Software	No
7	NXP Semiconductors	38	Semiconductors	No
8	Infineon Technologies	36	Semiconductors	No
9	STMicroelectronics	27	Semiconductors	No
10	Zalando	24	Online Commerce	Yes

United States

	Company	Market cap ($B)	Category	VC-backed
1	Apple	1,851	Tech Hardware	Yes
2	Microsoft	1,531	Systems Software	Yes
3	Amazon	1,523	Online Commerce	Yes
4	Alphabet	1,095	Consumer Internet	Yes
5	Facebook	749	Consumer Internet	Yes
6	Visa	386	Fintech	No
7	NVIDIA	310	Semiconductors	Yes
8	Mastercard	288	Fintech	No
9	PayPal	218	Fintech	Yes
10	Adobe	214	Application Software	Yes

China

	Company	Market cap ($B)	Category	VC-backed
1	Alibaba	824	Online Commerce	Yes
2	Tencent	725	Consumer Internet	Yes
3	Meituan	219	Online Commerce	Yes
4	JD.com	127	Online Commerce	Yes
5	Pinduoduo	108	Online Commerce	Yes
6	Xiaomi	68	Tech Hardware	Yes
7	NetEase	60	Games & Interactive Entertainment	Yes
8	Baidu	45	Consumer Internet	Yes
9	LONGi Green Energy Technology	43	Semiconductors	Yes
10	Will Semiconductor	26	Semiconductors	No

NOTE:

S&P Capital IQ Platform data as of date 31 October 2020.

SOURCE: London Stock Exchange, S&P Global

The top 10 largest public tech companies in the US, China and Europe also highlight an interesting point about the relative maturity of local venture capital ecosystems. 80% of the largest US tech companies were backed by venture capitalists in their early days and 90% of China's largest public tech companies were also VC-backed. In Europe, just three of the largest public tech companies were funded by VCs, though this actually represents huge progress. The arrival of Adyen, Spotify and Zalando into the Top 10 most valuable European tech companies is an important indicator that Europe's venture capital ecosystem is maturing and generating outcomes of extraordinary scale. This is important because as recently as 2017, there was not a single VC-backed tech company amongst Europe's largest companies. Going forward, this is only set to increase.

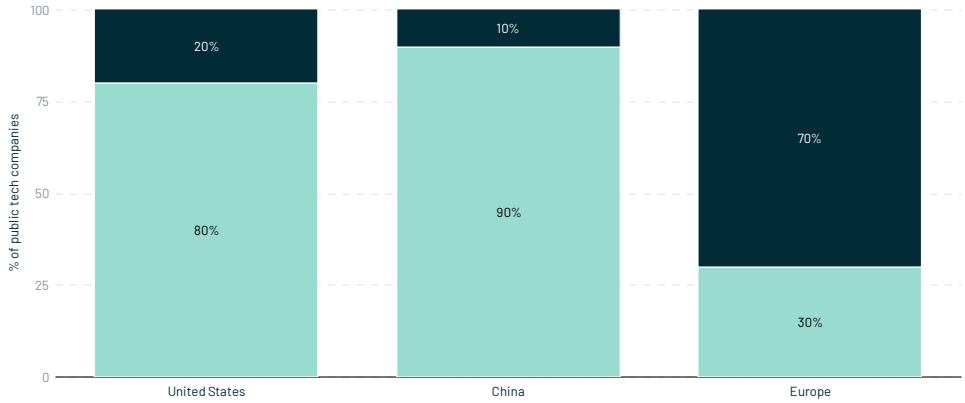
Share of top 10 largest public tech companies by region

LEGEND

- VC-backed
- Non-VC-backed

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

$1B+ PUBLIC TECH COMPANIES

795

public tech companies are now valued at $1B+

SOURCE: London Stock Exchange

The scale of the tech industry is evident when looking at the sheer number of public tech companies that have generated huge value. It is, of course, remarkable that there are now four $1T+ tech companies, another three companies at >$500B and 22 valued at over $100B. But from the perspective of an early-stage founder or investor, it is perhaps even more astonishing to know that there are 795 public tech companies valued at $1B or more. The possibilities to create huge outcomes with tech are massive.

Total number of public tech companies and total market cap by market cap group

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

	Number of companies
$1T+	4
$500B-$1T	3
$100-500B	22
$50-100B	20
$25-50B	38
$10-25B	111
$5-10B	123
$1-5B	474
<$1B	3,274

SOURCE: London Stock Exchange S&P Global

It is also fascinating to note that the power law distribution of value creation is evident in the public markets, just as it is in the private markets. The top 1% of most valuable global public tech companies account for a combined share of total market cap of 68.9% ($13.5T), while the top 10% of companies account for 93.9% of total value created ($18.4T).

POWER LAW

1%

of most valuable global public tech companies account for 69% of total market cap value

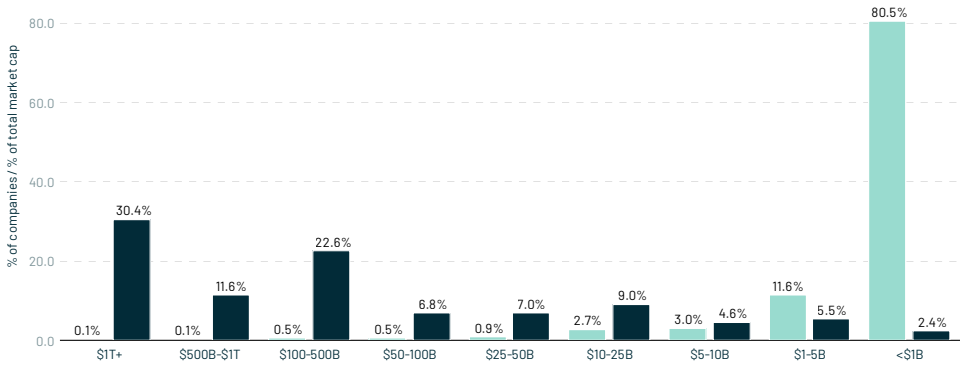
Share of total public tech companies versus share of total market cap by market cap group

LEGEND

- Share of companies (%)
- Share of total market cap (%)

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

Europe does not yet have any companies to match the scale of the largest US and Chinese tech giants, but it now has three companies valued at more than $100B (Prosus, ASML and SAP), Adyen in the $50-100B category and a further 18 companies valued at more than $10B, including VC-backed companies, such as Spotify, Zalando, Delivery Hero and Just Eat Takeaway.

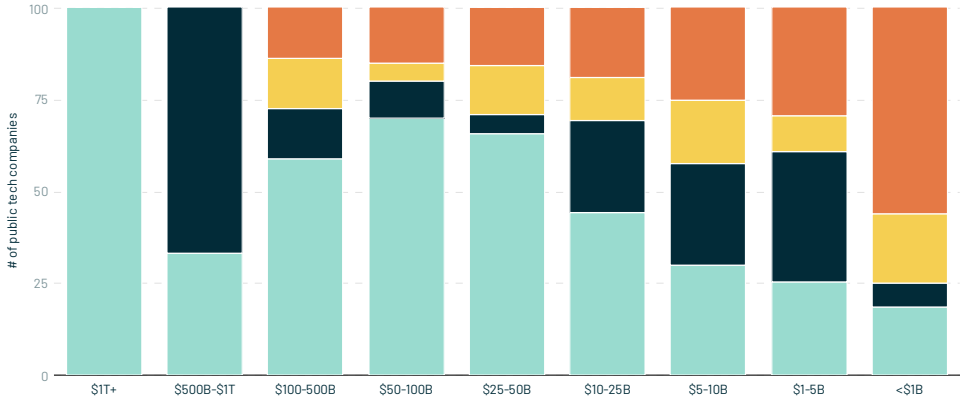
Total number of public tech companies by market cap group by selected regions

LEGEND

- United States
- China
- Europe
- Rest of World

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

An important discussion in European tech has centred around the choice of exchange for companies making the transition into the public markets. The prevailing narrative is that European tech companies have eschewed listing at home in order to go public in the US on one of the two main exchanges, the NASDAQ or the NYSE. In that context, it is interesting to examine the top 10 exchanges by total market cap based on the primary listing venue of European tech companies. The NASDAQ and NYSE do indeed feature prominently with both making the top 10 exchanges of choice based on the combined market cap of European tech companies that have listed on different exchanges.

Top 10 exchanges by total European tech public market cap based on primary listing venue of European tech companies

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

	Exchange	Market cap ($B)	% of total
1	Euronext Amsterdam (ENXTAM)	393	32
2	XETRA Trading Platform (XTRA)	279	22
3	Euronext Paris (ENXTPA)	139	11
4	London Stock Exchange (LSE)	118	10
5	Nasdaq Global Select (NasdaqGS)	78	6
6	New York Stock Exchange (NYSE)	58	5
7	Warsaw Stock Exchange (WSE)	34	3
8	OMX Nordic Exchange Stockholm (OM)	32	3
9	SIX Swiss Exchange (SWX)	29	2
10	Bolsas y Mercados Espanoles (BME)	22	2
11	Other	62	5

SOURCE: London Stock Exchange S&P Global

The NASDAQ and NYSE together account for a combined 11.1% of total market cap of public European tech companies, but it is clear that European tech companies have, historically, overwhelmingly chosen to list in Europe. 94.4% of public European tech companies are listed on European exchanges and those companies account for a combined 87% of total market cap.

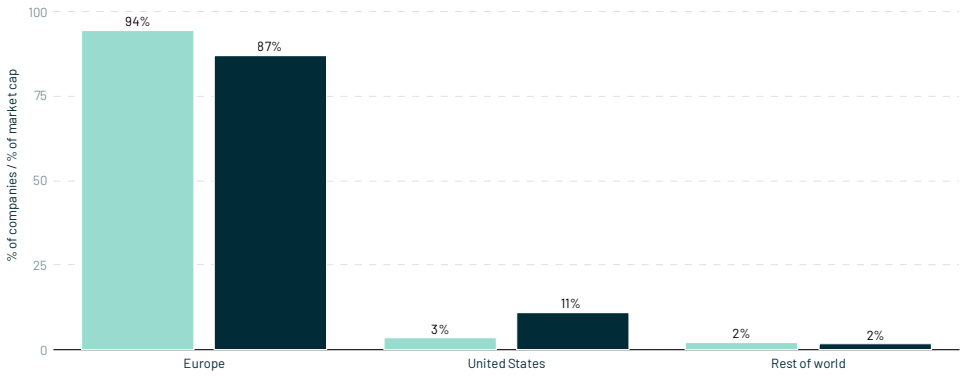
Share of total public European tech market cap (%) and share of total public European tech companies, by region of exchange of primary listing venue

LEGEND

- Share of companies (%)
- Share of market cap (%)

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

There is, however, a good reason that the issue of 'leakage' of value from Europe onto US exchanges is raised. This is due to the fact that companies that list on US exchanges are typically larger. The mean market cap of a public European tech company is $1.6B, though the median is far lower at just $49M, due to the volume of small-cap public European tech companies. Those that have chosen to list in the US, by contrast, have a mean market cap of $5.7B and a median market cap of $970M, around 20 times larger than the median public tech company listed on European exchanges.

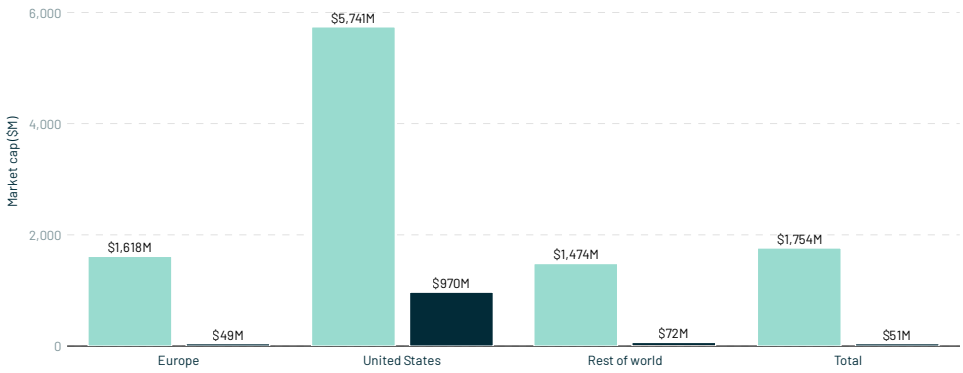
Mean and median market cap of public European tech companies by region of exchange of primary listing venue

LEGEND

- Mean($M)
- Median($M)

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

So, while just 3.4% of all public European tech companies chose to list in the US, the mix is dramatically different when looking at companies valued at over $1B. The propensity for these companies to list in the US is more than six times higher, with 13.4% of public European tech companies valued at $1B+ choosing to list on US exchanges, versus 1.9% of companies valued at <$1B.

$1B+ PUBLIC COMPANIES

13.4%

of $1B+ European tech companies chose to list in the US

Share of total public European tech companies (%) by market cap by region of exchange

LEGEND

- <$1B market cap
- $1B+ market cap

NOTE:

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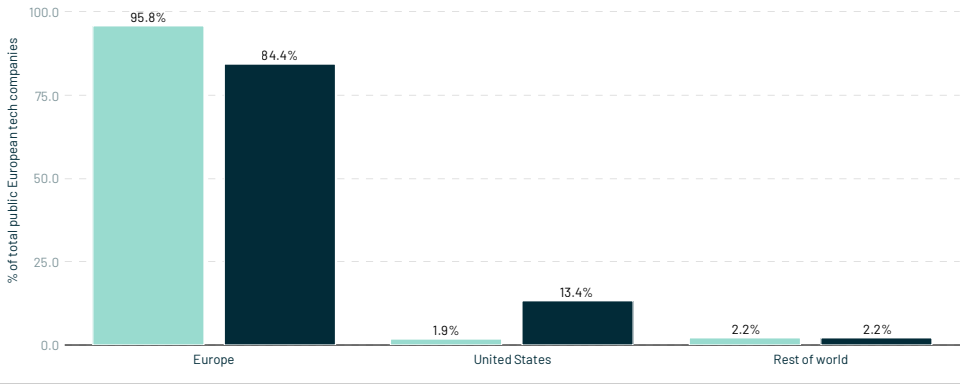


SOURCE: London Stock Exchange S&P Global

VALUE LEAKAGE

5x

more likely for public European tech companies valued over $1B and founded after 2000 to list on US exchanges

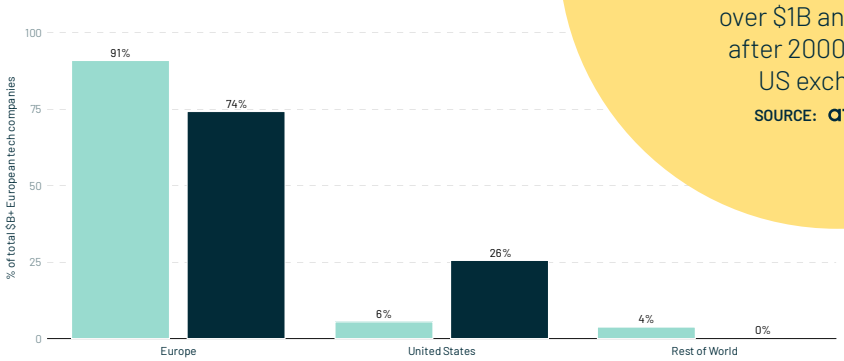
SOURCE: atomico°

- The debate around the leakage of value out of the European capital markets is also likely exacerbated by the fact that more recent cohorts of European tech companies seem more inclined to list on US exchanges. While just 5.5% of public European tech companies valued over $1B and founded pre-2000 are listed on US exchanges, this is up almost 5x to 25.7% for companies founded after 2000.

Share of total public $1B+ European tech companies (%) by region of exchange and founding decade

LEGEND
- Founded Pre-2000
- Founded Post-2000

NOTE:
S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



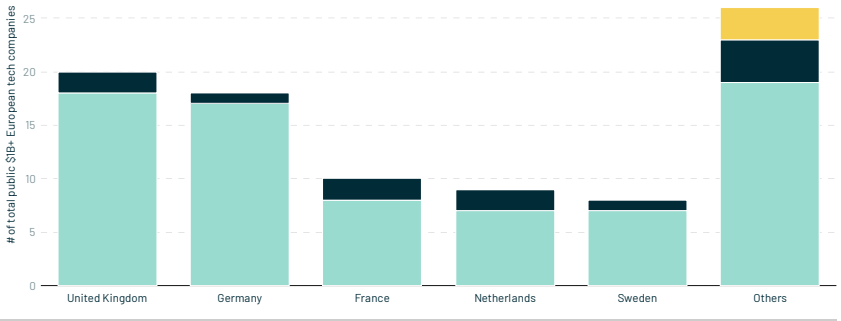
SOURCE: London Stock Exchange S&P Global

- The leakage of large-cap public European tech companies into the US markets is a trend seen across many different European markets. It would appear that large German tech companies have proven to be consistent in choosing local exchanges for their public listing with the exception of Jumia, which chose to list on the NYSE. Other large European tech companies that have chosen the US for their primary listing include Spotify, Farfetch, Criteo and Mimecast.

Number of total public $1B+ European tech companies by company HQ country and region of exchange

LEGEND
- Europe
- United States
- Rest of World

NOTE:
S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



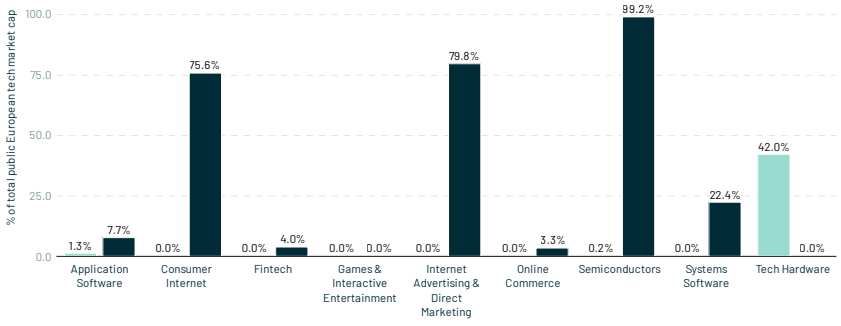
SOURCE: London Stock Exchange S&P Global

- There is also a stark trend when looking at the primary listing venue choices of European public tech companies broken down by category and company founding period. The aggregate market cap of companies founded pre-2000 listed on US exchanges was negligible across almost all categories. The cohort of companies founded after 2000, however, has listed a significant share of total market cap on US exchanges in several categories, including Consumer Internet and Semiconductors.

Share of total public European tech market cap (%) listed on US exchanges by category and founding period

LEGEND
- Founded Pre-2000
- Founded Post-2000

NOTE:
S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

04.4
Tech IPOs

- Europe has produced more tech IPOs than the US every year over the period from 2016 onwards. On average, Europe has recorded about 3.6 tech IPOs per month since 2016 versus about 2.3 per month in the US. But the US is narrowing the gap.

TECH IPOS PER MONTH

3.6

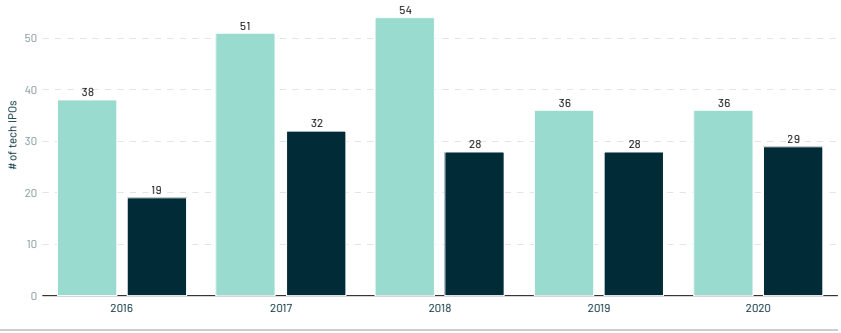
tech IPOs per month since 2016 in Europe on average

Number of tech IPOs by region

LEGEND
- Europe
- United States

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

- Europe has consistently produced three to five $1B+ tech IPOs per year. 2020 has been in line with this average with three $1B+ tech IPOs to date as of October 2020. By contrast, the US has had an incredibly strong year for $1B+ tech IPOs. With 20 $1B+ tech IPOs in 2020, the US is on track for a five-year high.

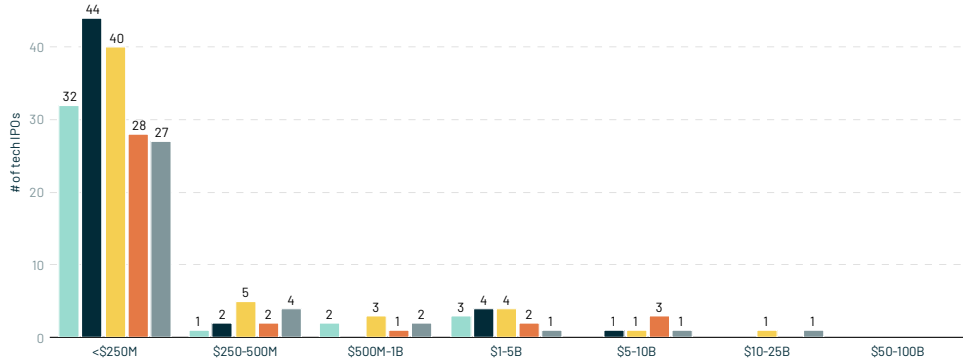
Number of tech IPOs with <$1B+, $1B+ and $5B+ market cap at IPO by region

LEGEND
- 2016
- 2017
- 2018
- 2019
- 2020

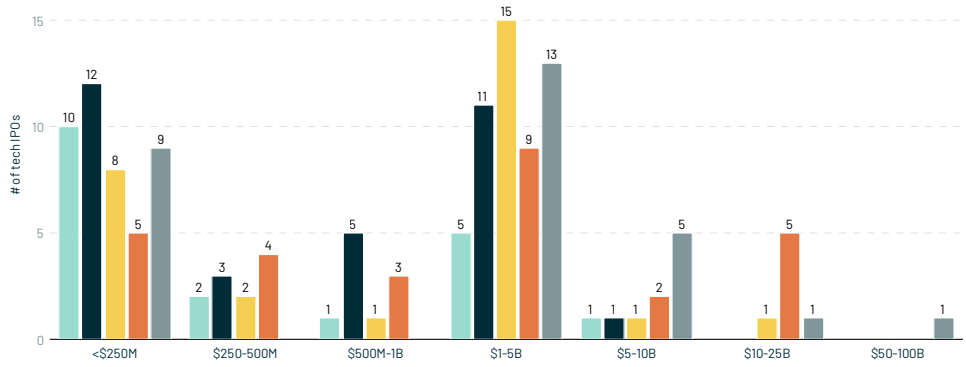
NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

Europe



United States



SOURCE: London Stock Exchange S&P Global

- Three-quarters of all European tech IPOs involve small cap companies with a market cap of below $250M. These companies account for just one-third of US tech IPOs. Just 10% of European tech IPOs since 2016 have involved companies with a market cap of >$1B. By comparison, more than half (52%) of US tech IPOs had a market cap of >$1B after the first day of trading. Europe has had 21 $1B+ market cap IPOs since 2016 versus 71 in the US.

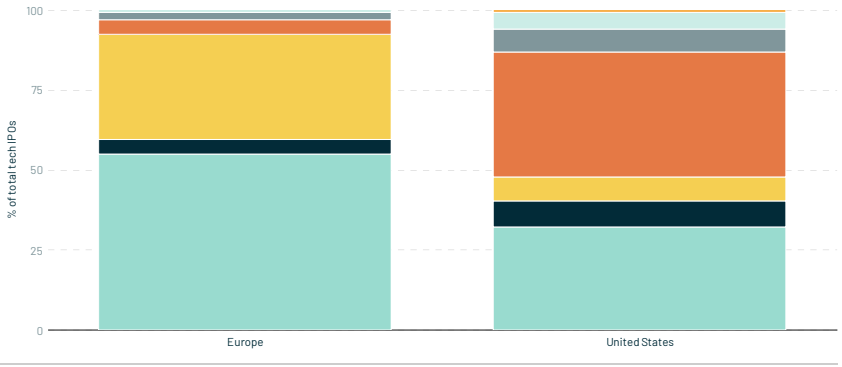
Share of total tech IPOs (%) by market cap group by region

LEGEND

- <$250M
- $250-500M
- $500M-1B
- $1-5B
- $5-10B
- $10-25B
- $50-100B

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

NUMBER OF EUROPEAN TECH COMPANIES THAT WENT PUBLIC VIA A REVERSE MERGER WITH A SPAC IN 2020

1

Arrival, the commercial EV manufacturer, is going public via a reverse merger with CIIG Merger Corp with the transaction valuating the company at $5.4B. At time of publication, this remains the only SPAC involving a European tech company.

- The profile of the average tech IPO varies dramatically in Europe compared the US, with European public markets open to companies of all sizes. As a consequence, an IPO is a viable alternative funding path in Europe for even very small companies with <$100M market cap. The difference between the average and median market cap of European and US tech IPOs is stark. While the median market cap of US tech companies that have listed since 2016 is $1.1B, the equivalent is just $42M in Europe. Looking at the mean, there is still a significant difference at $2.7B in the US versus $576M for European tech IPOs.

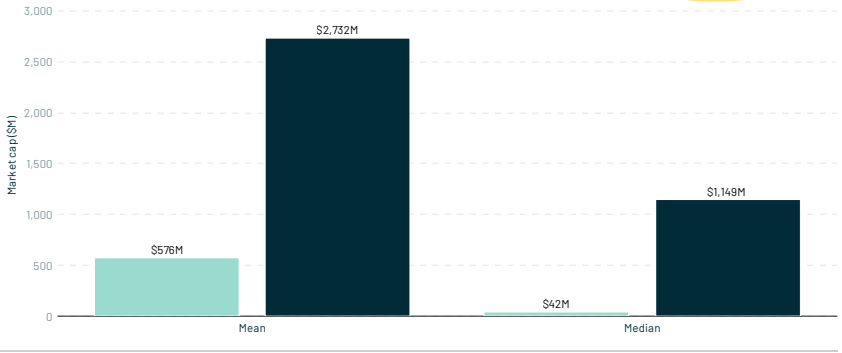
Mean and median market cap ($M) at IPO (close of first day trading) by region, 2016 to 2020

LEGEND

- Europe
- United States

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

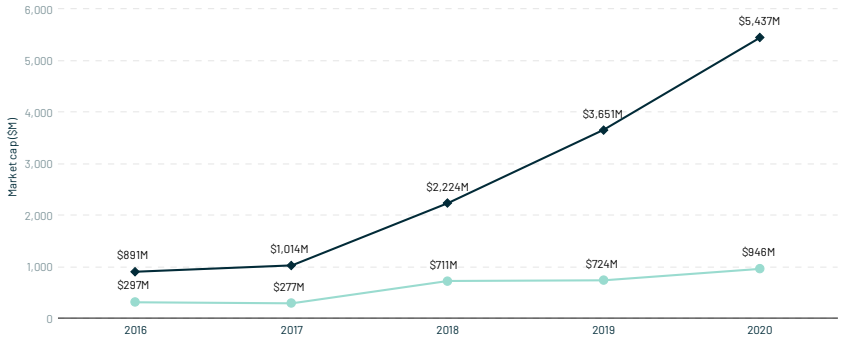
- Across both regions, however, the average size of IPOs in both Europe and the US has been increasing over time. The huge delta between the mean and median for European tech IPOs underlines the massive spread in the scale of companies coming to market in Europe. In the US, the delta is narrower as there is much less variance in the scale of companies coming to market.

Mean and median market cap ($M) at IPO (close of first day trading) by region and by year

LEGEND
- Europe
- United States

NOTE:
S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

Mean



Median

SOURCE: London Stock Exchange S&P Global

- The combined market cap of the top five largest US tech IPOs exceeded $110B, more than 3.6x the value of the combined top five largest European tech IPOs. Looking at the top 10, the gap in value generated by these companies expands to 4.1x at $133B for the US versus $32B for Europe.

US BLOCKBUSTER IPOS

$110B

is the combined market cap of the top five largest US tech IPOs

VALUE GAP

3.6x

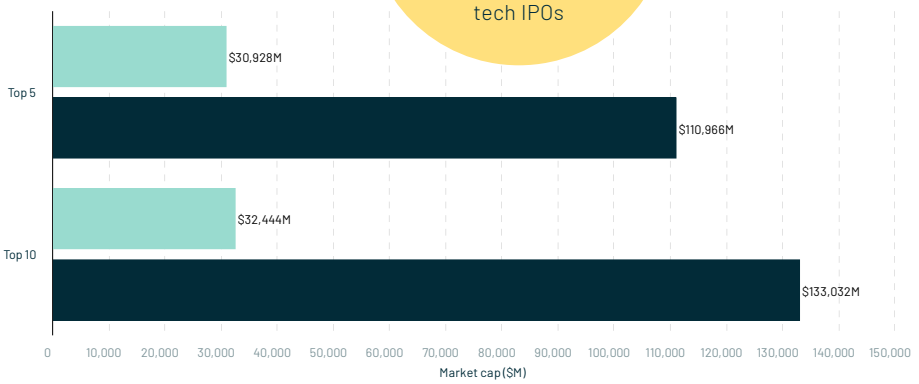
more than the value of the combined top five largest European tech IPOs

SOURCE: London Stock Exchange

Aggregate market cap ($M) of top 5 and top 10 tech IPOs by region

LEGEND
- Europe
- United States

NOTE:
S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

Europe's largest tech IPO was Allegro which closed on its first day of trading at a market cap of $19B. The largest tech IPO in the year was Snowflake, reaching $70B at the end of its first day of trading. Snowflake is valued at more than the top 10 European tech IPOs combined. In fact, the entire US top 10 companies all had a market cap far in excess of $1B; while there are just three in Europe. Europe's tech IPOs count a diverse set of companies - many coming from outside the 'mainstream' tech industry and where incentives for going public vary. On the other end, US tech IPOs are much more typically scaled through VC funding. As a consequence, there are a different set of incentives in terms of when a listing may make sense.

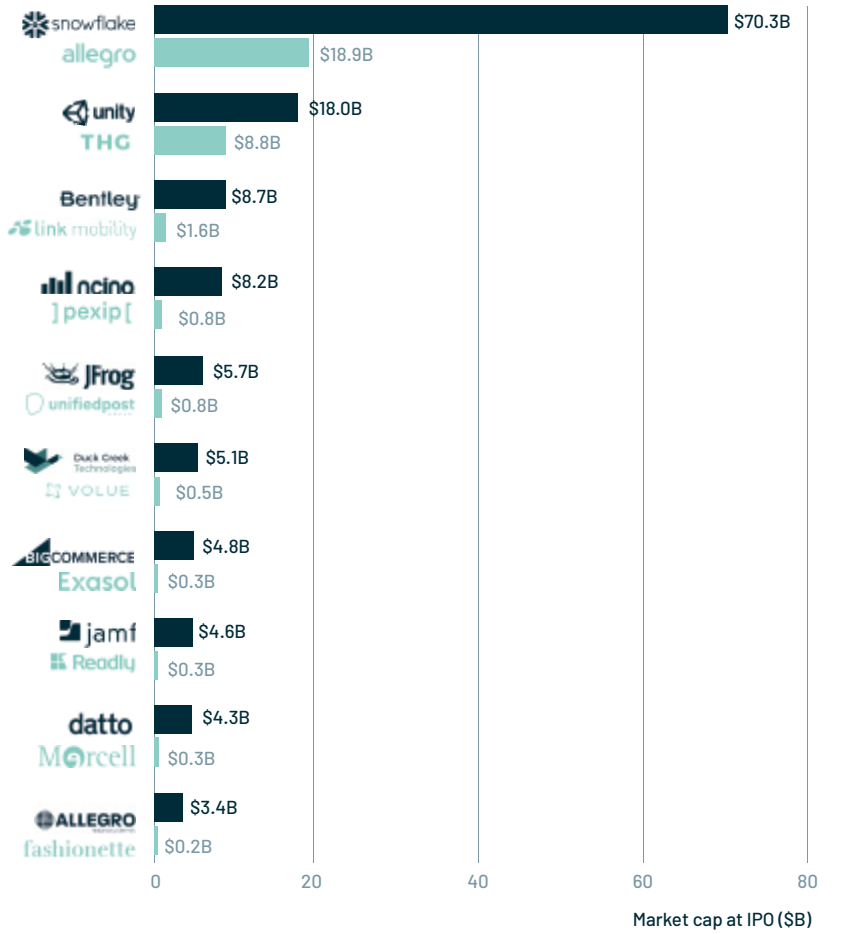
Top 10 largest tech IPOs by market cap at IPO ($B) in Europe and United States in 2020

LEGEND

- Europe
- United States

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only. Market capitalisation at IPO is based on end of first day trading.



SOURCE: London Stock Exchange S&P Global

The average amount of proceeds raised at IPO has increased over the past five years in both Europe and the US. This reflects many factors, including the significant demand amongst public market investors to deploy capital and build their tech exposure. There is, once again, a huge spread between the mean and median average proceeds raised in Europe, reflecting the huge scale diversity in companies coming to market in the region.

Mean and median proceeds raised ($M) at IPO by region and by year

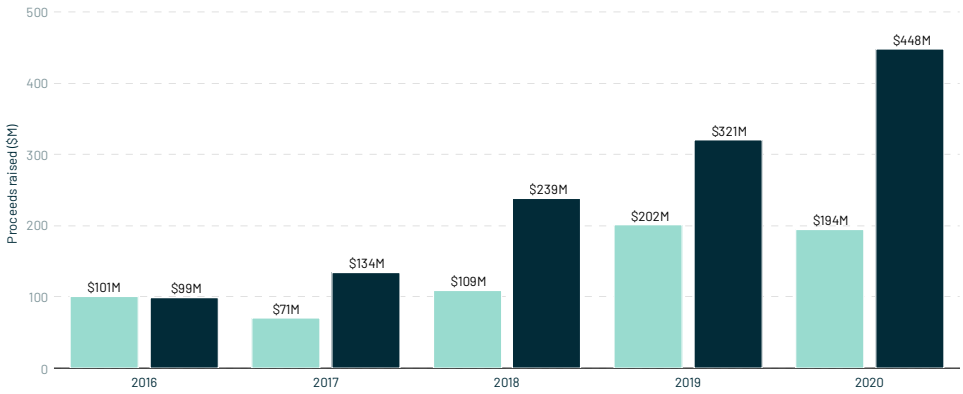
LEGEND

- Europe
- United States

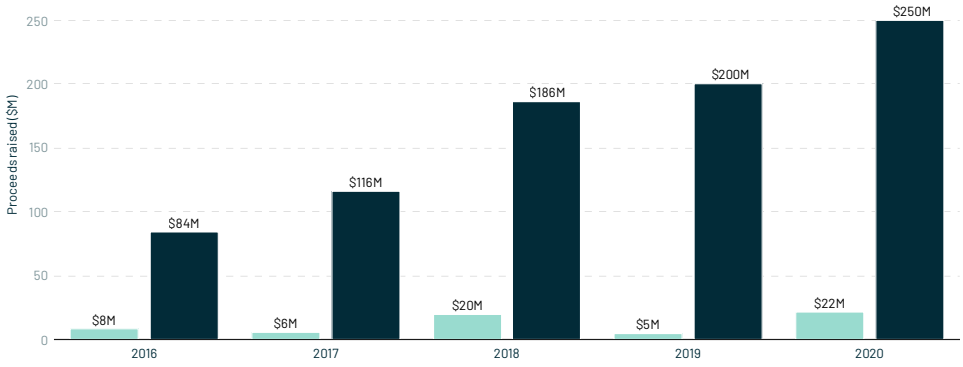
NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.

Mean



Median



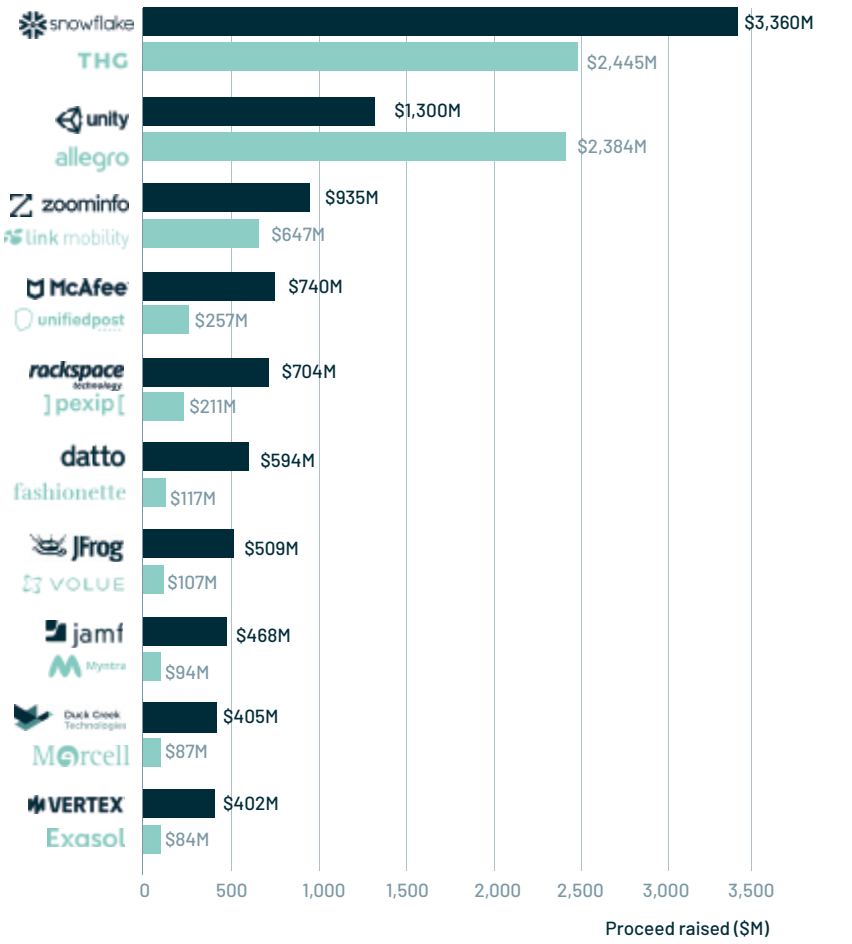
SOURCE: London Stock Exchange S&P Global

The IPOs of The Hut Group and Allegro represented 2020's most significant events in terms of public market activity for tech in Europe. These two IPOs alone raised a combined $4.8B in proceeds, equating to more than 70% of all proceeds raised by tech companies at IPO in Europe in 2020 to date. Snowflake's IPO in the US was an outlier across many vectors, including the massive amount raised in proceeds in its public listing. By raising $3.4B, it out-raised the next largest US tech IPO by a factor of 2.6x.

Top 10 largest tech IPOs by proceeds raised at IPO ($M) in Europe and United States in 2020

LEGEND

- Europe
- United States



NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only. 2020 is based on data to October 2020

SOURCE: London Stock Exchange, S&P Global

Slush 2019
Photo by: Tanu Kallio

- The majority of European tech IPOs involve companies that have not raised VC funding. There have been 57 VC-backed tech IPOs in Europe since 2016, equating to 27% of all tech IPOs. The funding background for the rest is varied: bootstrapped, high-net-worth investors, corporate funding, or private equity.

VC-BACKED TECH IPOS

27%

of all tech IPOs

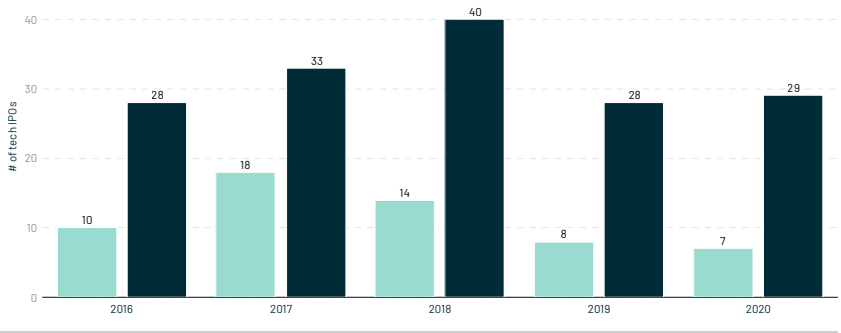
Number of VC-backed tech IPOs in Europe

LEGEND

- VC-backed
- Non-VC-backed

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

- VC-backed tech IPOs account for a much greater share of the region's $1B+ tech IPOs. VC-backed companies accounted for 50% of all tech IPOs with a market cap >$1B, but only 22% of tech IPOs below $1B market cap. There are, notably, still many large cap tech IPOs in Europe that have not raised VC funding, including recent IPOs such as Allegro and Nexi.

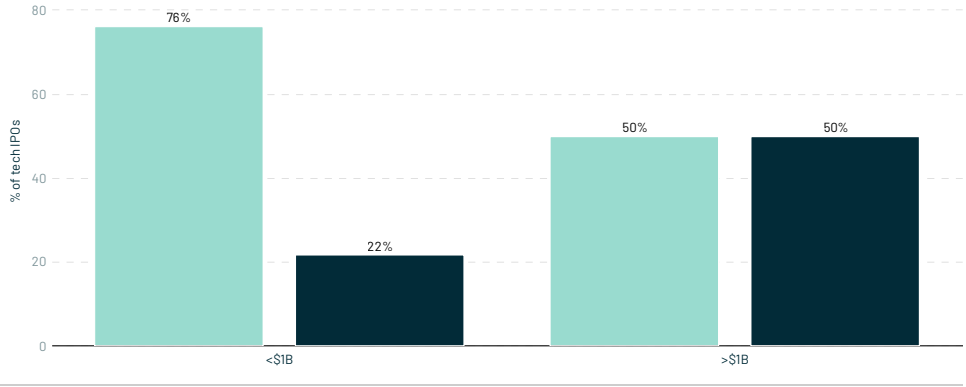
Share of tech IPOs (%) in Europe with >$1B+ market cap that are VC-backed, 2016 to 2020

LEGEND

- Non-VC-backed
- VC-backed

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

The different sources of funding a company takes on creates different sets of incentives around the timing and size of an IPO for its stakeholders. Simplistically, VC-backed companies are driven by investor incentives to maximise returns and therefore to exit at an increased scale. These incentives are not necessarily shared by companies that have bootstrapped or have shareholders with different return expectations. In any case, this is reflected when looking at the average market cap of VC-backed tech IPOs, which are materially higher on both a mean and median basis.

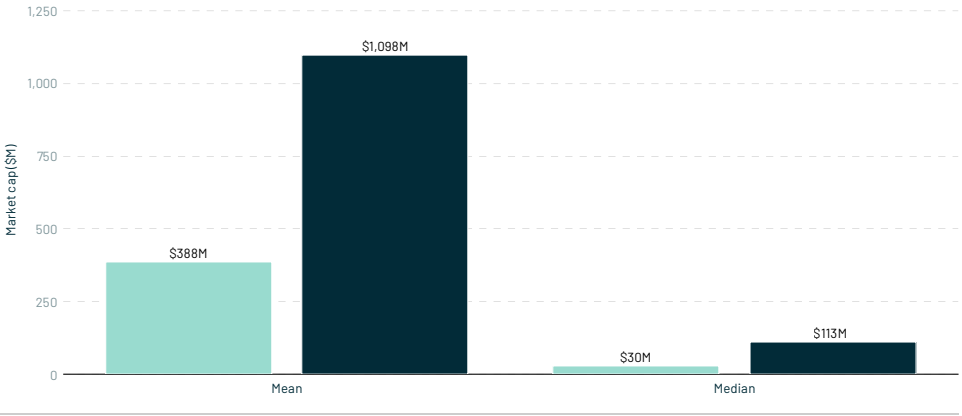
Mean and median market cap ($M) of VC-backed tech IPOs in Europe, 2016 to 2020

LEGEND

- Non-VC-backed
- VC-backed

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

The prevalence of VC-backed companies is important as they typically have a different growth profile. The aggregate market cap of VC-backed tech IPOs since 2016 on the first day of trading was $63B compared to $61B for non-VC-backed companies. Between their respective IPOs and 31 October 2020, however, VC-backed companies have added an additional $77B in market cap versus just $32B for non-VC-backed companies. This underlines the role that VC-backed tech companies play from a growth and value creation perspective.

VALUE CREATION

$77B

added in market cap by VC-backed companies since their IPOs, over 2.3x more than non-VC-backed companies

SOURCE: London Stock Exchange

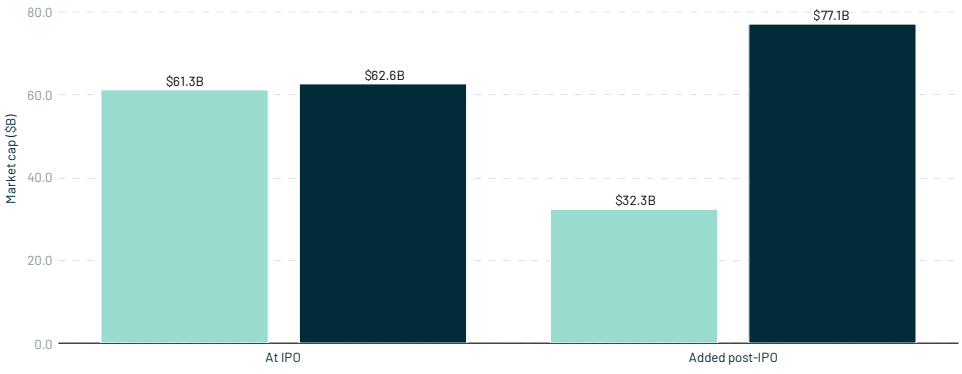
Market cap ($B) at IPO and added post-IPO by VC-backed and non-VC backed tech IPOs, 2016 to 2020

LEGEND

- Non-VC-backed
- VC-backed

NOTE:

Excludes companies that have delisted since IPO. S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

This reveals hidden insights into the state of European tech capital markets. There are a large number of smaller IPOs in countries such as Italy and Poland - perhaps because the private capital markets for VC are not as well developed. Sweden also stands out; it has a flourishing VC investor base, but also very active public markets for smaller-cap tech IPOs. It is not surprising to see that the UK & Germany have produced the largest number of >$1B+ tech IPOs since 2016. More surprising is that Norway comes in third place.

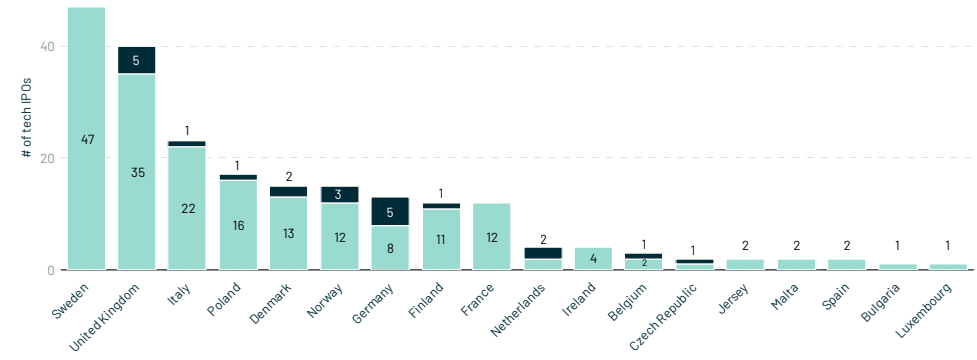
Number of tech IPOs by market cap by country, 2016 to 2020

LEGEND

- <$1B
- >$1B

NOTE:

S&P Capital IQ Platform, as of date 31 October 2020, for illustrative purposes only.



SOURCE: London Stock Exchange S&P Global

Slush 2019
Photo by: Julius Konttinen

> **Polish people are naturally very entrepreneurial which can be seen by the number of large private companies set up over the last 30 years (since transformation), of which some of the most well-known with a tech focus are CD Project, Allegro, Asseco group companies, Polsat group, Ten Square Games – all of these were once startups.**

Kinga Stanisławska
Experior Venture Fund
General Partner and Founder

The venture ecosystem in Poland really kicked off about 6-7 years ago and is gathering momentum. Seed financing from angels and around 100 local micro VC funds is abundant. Grant and support possibilities for building out of R&D, as well as export and promotion via accelerators is booming. The establishment of software R&D centres by some of the largest global tech players in Poland some years ago (due to the skills of Polish software engineers who are ranked 3rd by HackerRank globally) has created a new cast of talented and high quality software developers with now global experience of building the software being used today by the global consumer. These engineers are now ready to venture out on their own and establish new companies. Some have already raised significant VC money for their projects, such as NoMagic.

The recent establishment of a local fund of funds, PFR Ventures, who have now invested in over 30 VCs, has also accelerated progress and availability of capital for early stage.

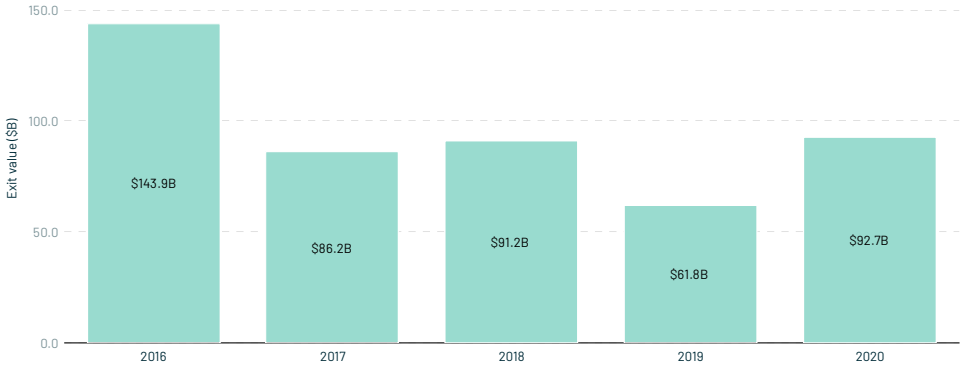
04.5
Mergers & Acquisitions

- The aggregate value of exits of European tech companies via M&A exceeded $90B by the end of September 2020, on track for the strongest year since 2016.

European M&A exit value per year

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 data is up to September 2020.



SOURCE: dealroom.co

- The vast majority of exits of VC-backed European tech companies are small in scale. In fact, exits via M&A that are valued at $100M or lower, including those that involve undisclosed exit valuations, account for more than 90% of total exits per year.

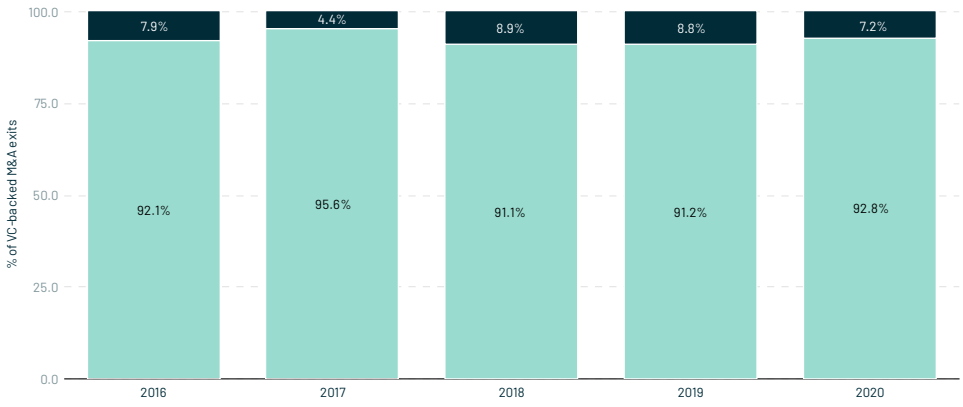
VC-backed M&A exit count by deal size

LEGEND

- <$100M
- >$100M

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is based on data up to September 2020.



SOURCE: dealroom.co

The top 10 largest acquisitions of VC-backed European tech companies drove an aggregate enterprise value at exit of $12.7B. The top three largest transactions all involved acquisitions of once VC-backed companies by private equity buyers. The acquisition of a majority ownership of Charlotte Tilbury, in a transaction that valued the company at more than $1.2B, by Spanish fashion and beauty giant, Puig, together with the billion-dollar acquisition of Flaschenpost by The Oetker Group, represent important milestones of older European incumbent businesses looking to Europe's VC-backed startup ecosystem for growth and innovation.

Top 10 largest VC-backed exits by value at exit in 2020

	Company	Country	City	EV ($M)	Acquirers (if any)
1	Veeam	Switzerland	Baar	5,000	Insight Partners
2	Idealista	Spain	Madrid	1,500	EQT Partners
3	Pipedrive	Estonia	Tallinn	1,500	Vista Equity Partners
4	Charlotte Tilbury Beauty	United Kingdom	London	1,230	BDT Capital Partners, Puig
5	Flaschenpost	Germany	Muenster	1,160	Dr Oetker
6	Jagex	United Kingdom	Cambridge	530	Runescape
7	Voxbone	Belgium	Brussels	527	Bandwidth.com
8	Polskie ePlatnosci	Poland	Rzeszow	480	Nets
9	DecaWave	Ireland	Dublin	400	Qorvo
10	Touch Surgery	United Kingdom	London	350	Medtronic

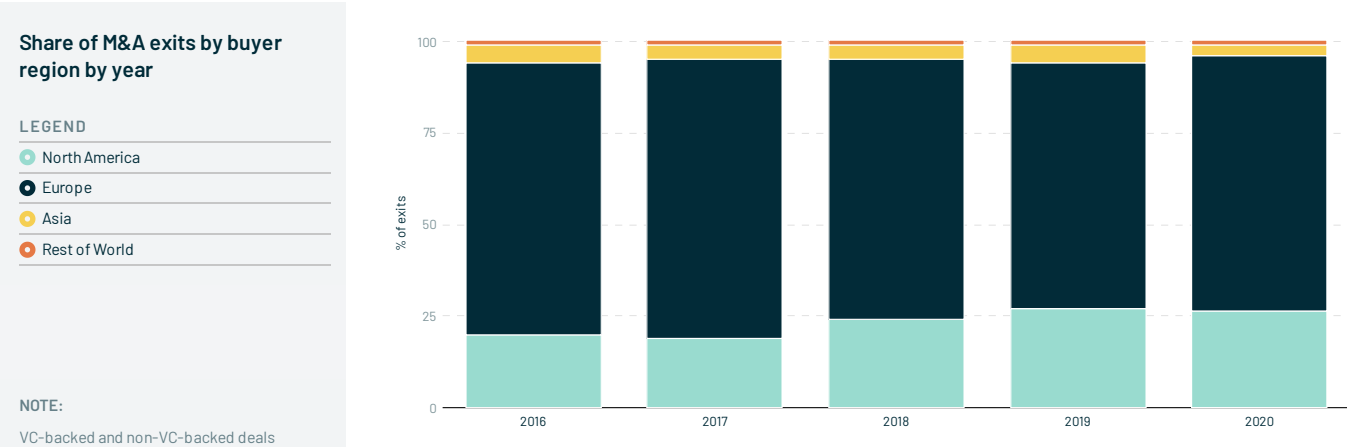
NOTE:

Based on data up to 31 October 2020. Charlotte Tilbury Beauty and United Wardrobe value at exit based on rumours.

SOURCE: dealroom.co

The acquisitions of companies like Flaschenpost to a European buyer is in some way not unusual. European buyers actually consistently drive the largest share of exits of European tech companies by M&A, consistently accounting for around 70% or so of exits by count.

Share of M&A exits by buyer region by year



NOTE:

VC-backed and non-VC-backed deals included. All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is based on data up to September 2020.

SOURCE: dealroom.co

- The Flaschenpost acquisition by The Oetker Group is remarkable for other reasons. It is simply still an infrequent occurrence to see European buyers acquiring VC-backed European tech companies at such large exit values. In fact, large-ticket acquisitions have been - and continue to be - driven by buyers from the US. While North American buyers have accounted for 22% of M&A exit volume since 2016, those transactions have accounted for a disproportionate share of total exit value (45%), indicating the higher average ticket size of US-led acquisitions.

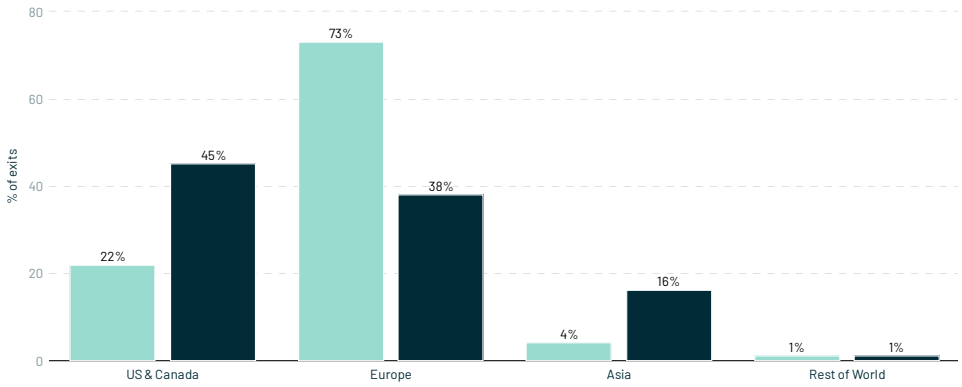
Share of M&A exits by buyer region, 2016 to 2020

LEGEND

- Share of count (%)
- Share of value (%)

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 data is up to September 2020.



SOURCE: dealroom.co

- The trend over time also shows that while North American buyers have accounted for a relatively steady share of M&A exit volume, they have been responsible for a growing share of total exit value over the past five years, though a few larger M&A transactions led by European buyers has shifted the dial back somewhat in 2020.

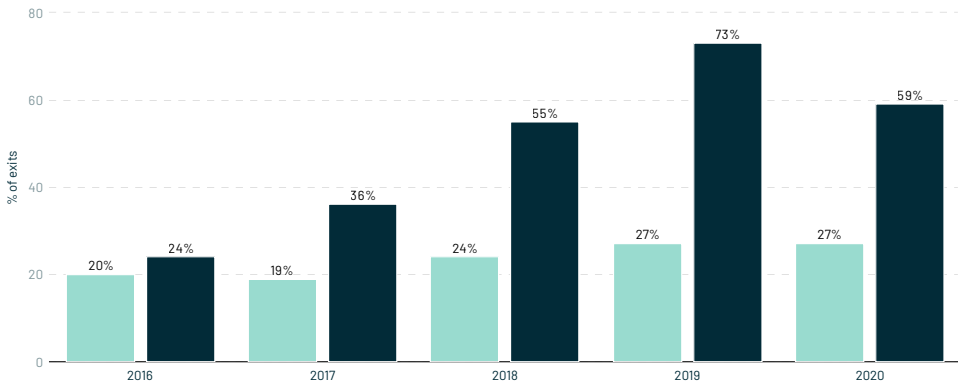
Share of exits by North American buyers

LEGEND

- Share of total number of exits (%)
- Share of total value of exits (%)

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 data is up to September 2020.



SOURCE: dealroom.co

04.6

Private Equity

Private Equity and European Tech

Private equity buyout firms ('PE') are playing a growing role in the broader European tech ecosystem, but their presence and activities are not yet that well understood within the mainstream tech narrative.

To that end, we have partnered with Hg, Europe's leading software investor to explore the state of European tech through the lens of private equity.

- A positive development for European tech is the emergence of an increasingly active exit route to private equity buyers. The strength of the European tech investment opportunity set has attracted an increasingly deep and sophisticated base of investors with large funds available to deploy in the region. Hg is Europe's only large-scale, pureplay homegrown tech buyout firm, though the investor base active in European tech spans local, generalist funds from inside and outside Europe with a tech focus. Leading US pureplay tech buyout firms, such as Vista Equity and Thomas Bravo, are also sometimes active in Europe.

Selection of the leading European-based and European-focused tech PE firms

NOTE: Positioning of logos is for illustrative purposes only.

The past two years have seen an unprecedented level of large-scale buyouts of European tech companies. Since 1 January 2019, there have been 17 acquisitions of European tech companies at an enterprise value in excess of $1B. The list of companies is dominated by enterprise software companies, but also includes a number of significant consumer transactions, such as Badoo, AutoScout24 and Idealista. Horizontal enterprise software is well represented, but the companies span multiple verticals, including fintech and healthtech. Though sponsor-to-sponsor transactions are the most common, there is also a mix of types of transactions, including public-to-private and corporate divestitures. The geographic diversity of European tech is strongly evident in this analysis, as most of these companies have been built in towns and cities not typically associated with Europe's most active tech hubs.

$1B+ EV acquisitions of European tech companies by PE/buyout firms since 1 Jan 2019

	EV ($B)	Date	City	Country	Buyer	What they do	VC-backed (at any time)
Visma	12	Aug 2020	Oslo	Norway	Hg, Warburg Pincus, TPG	Tax & Accounting/ERP software	
Visma	8	Apr 2019	Oslo	Norway	Hg, CPPIB	Tax & Accounting/ERP software	
Veeam	5	Feb 2020	Baar	Switzerland	Insight Partners	DevOps	Yes
Advanced Computer Software Group	5	Aug 2019	Slough	UK	BC Partners	Healthcare software	
Sophos	4	Mar 2020	Oxford	UK	Thoma Bravo	Cybersecurity	
AutoScout24	3	Apr 2020	Munich	Germany	Hellman & Friedman	Auto marketplace	Yes
Industrial & Financial Systems	3	Jul 2020	Linkoping	Sweden	EQT, TA	ERP software	
Badoo	3	Nov 2019	London	UK	Blackstone, Accel Growth	Social/Dating	
SUSE	3	Mar 2019	Nuremberg	Germany	Ardian, EQT	DevOps	
P&I Personal & Informatik	3	Dec 2019	Wiesbaden	Germany	Hg	Payroll and HCM software	
Webhelp	2	Aug 2019	Paris	France	Groupe Bruxelles Lambert	CRM and services	Yes
AutoStore	2	Jul 2019	Nedre Vats	Norway	Thomas H Lee Partners	Warehouse automation/Robotics	
Exact Software	2	Feb 2019	Delft	Netherlands	KKR	Fintech	
WebPros	2	Dec 2019	Schaffhausen	Switzerland	CVC Capital Partners. Oakley Capital, BrainWeb Investment, Pecunalta	Web hosting	
Idealista	2	Sep 2020	Madrid	Spain	EQT	Online real estate	Yes
Pipedrive	2	Nov 2020	Tallinn	Estonia	Vista Equity Partners	CRM software	Yes
eFront	1	May 2019	Paris	France	BlackRock	Fintech	
Unzer	1	Aug 2019	Heidelberg	Germany	KKR	Fintech	

SOURCE: dealroom.co

It is fascinating that, despite the huge scale of the PE-target companies, most of them are likely to be unknown to the European tech ecosystem which has been traditionally built around VC-backed startups and scaleups. The fact is that Europe is home to a large number of 'hidden giants' that have remained 'off-the-radar' by building outside of the more mainstream VC ecosystem. These are huge companies that have thousands of employees or hundreds of millions of dollars of revenue. Yet, by building off the venture fundraising path, many of them have scaled without ever taking any external equity funding, i.e. by having bootstrapped growth. JetBrains is a great example of a huge business that has been built with zero funding. JetBrains is based in Prague in the Czech Republic. This may be considered an unlikely home for a European tech giant but, as the list shows, this should not be considered the case. In fact, another Prague-based company, Avast, went public in 2018 and is now valued at $6.3B. A common theme that runs through several of these companies is that many are tackling markets that initially seem too small to be of interest to global players, but by the time they figure out they are interesting, a local player has "won" already. Prominent examples include Allegro versus Amazon / eBay in Poland.

Selected examples of 'off-the-radar' large-scale European tech companies

	Company	Founding Year	Funding history	City	Country	Employees	Revenue(2019)
1	Acronis	2003	Bootsrapped; Growth Equity	Schaffhausen	Switzerland	1,400+	$250M
2	AutoDoc	2008	Bootstrapped	Berlin	Germany	1,800+	$700M
3	Cegid Group	1983	PE-owned	Lyon	France	2,000+	$570M
4	Infobip	2006	Bootsrapped; Growth Equity	Vodnjan	Croatia	2,200+	$700M
5	JetBrains	2000	Bootsrapped	Prague	Czech Republic	1,000+	$270M
6	Murex	1986	Bootstrapped	Paris	France	2,500+	$600M
7	Relex Solutions	2005	Bootsrapped; Growth Equity	Helsinki	Finland	800+	n/a
8	Tesonet	2008	Bootsrapped	Vilnius	Lithuania	700+	n/a
9	The Access Group	1989	PE-owned	Colchester	UK	1,600+	$280M
10	Transporeon	2000	PE-owned	Ulm	Germany	800	$100M
11	P&I	1968	PE-owned	Wiesbaden	Germany	450	$160M

SOURCE: atomico

It is a positive, therefore, that there are now growing signs that these two worlds are inching closer together. Coming back to the 17 $1B+ acquisitions of European tech companies by private equity buyers reveals an interesting trend. While just one of the ten transactions (10%) in 2019 involved a company that previously raised funding from VCs, the numbers for 2020 show that PE buyers appear to be setting their sights on venture-backed assets with growing regularity. The seven transactions at >$1B EV in 2020 involved four European tech companies that were previously venture-backed, including Pipedrive, Idealista and AutoScout24. This represents a healthy potential driver of liquidity in European capital markets, opening up new exit routes for founders and their investors.

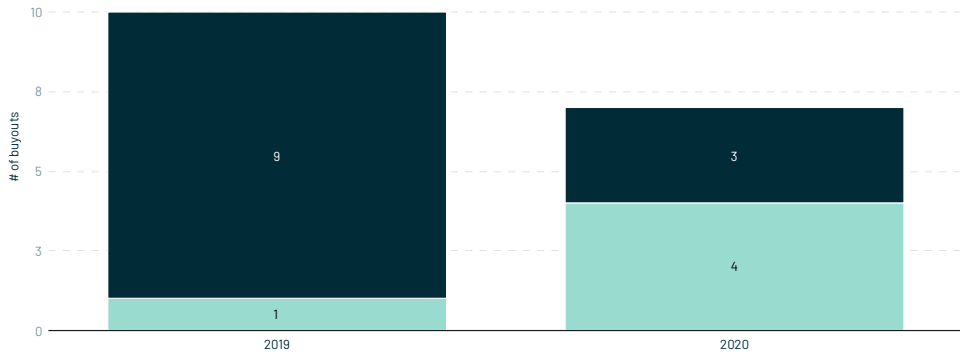
EVER CLOSER UNION

57%

or 4 out of 7 PE transactions at $1B+ EV involved VC-backed companies in 2020

SOURCE: dealroom.co

Number of $1B+ buyouts of European tech companies since 1 Jan 2019, by VC-backed or not



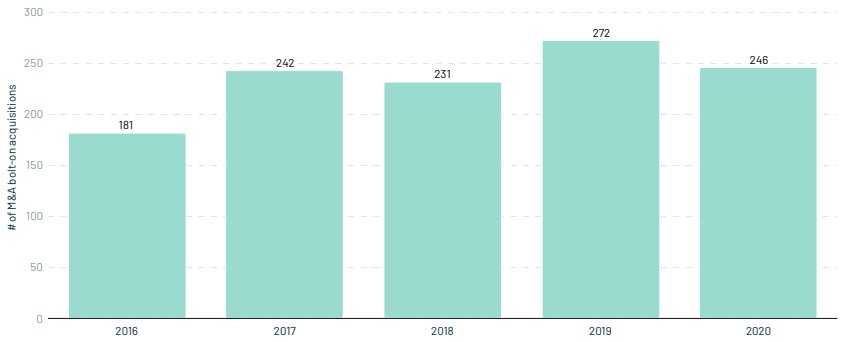
NOTE:

Based on data up to September 2020.

SOURCE: dealroom.co

A further reason to be positive about the growing presence of PE-backed European tech companies is the role that they can play in driving liquidity into capital markets through their M&A rollout strategies. The average PE-backed company executing a roll-up based growth plan makes two to three so-called bolt-on acquisitions of smaller companies per year over the lifecycle of its holding. Again, for a European market that generally underperforms in terms of driving exits, this should be welcomed and highlights the growing breadth, as well as depth, of European exits or capital-raising opportunities. Historically, the options might have been restricted to trade sale or IPO, but now there is scope for growth equity, private equity or rolling-up into a larger European entity. This helps drive more success, as well as providing further off-ramps for investors, employee shareholders, angel investors and operator talent to find their next paths within the ecosystem.

Estimated number of M&A bolt-on acquisitions per year in Europe by PE-backed European tech companies



SOURCE: Hg

Selection of acquisitions of European VC-backed tech companies

The emergence of PE-led buyouts or majority ownership transactions as a viable path for VC-backed companies is exemplified by recent transactions in the past two years. This is a trend that has long since been established in the US, but has been underdeveloped in Europe until recently.

auto24
Munich, Germany

Idealista
Madrid, Spain

Pipedrive
Tallinn, Estonia

Veeam
Baar, Switzerland

Selection of late-stage growth rounds led by PE investors in 2020

The coming together of VC and PE investors in European tech is also evident in late-stage investment trends. A growing number of large growth rounds of $100M+ now involve the minority participation of investors more traditionally associated with majority investments.

Stockholm, Sweden
$650M, Growth Equity, Sept 2020 / Silver Lake and BlackRock

Munich, Germany
$561M, Series F, Jul 2020 / Permira

Paris, France
$300M, Series D, Sept 2020 / Permira

Paris, France
$200M, Growth Equity, Jan 2020 / CVC

Paris, France
$190M, Series D, May 2020 / BlackRock

Paris, France
$160M, Series B, Oct 2020 / BlackRock and Bridgepoint

Since 1 January 2019, there have been at least 13 exits of of PE-backed European tech companies at greater than $1B enterprise value, totalling an aggregate value of almost $60B. As Visma's partial exit at a value of $12.2B clearly demonstrates, the magnitude of outcomes is becoming even larger. The scale of these outcomes is driving confidence in the upside potential, even when the entry EV is in the billions - a fact that will drive further sponsor-to-sponsor large cap activity. PE-backed European tech companies are an important contributor to IPO market activity, as exemplified by the IPOs of companies such as Allegro, Nexi and TeamViewer in recent years

$1B+ EV exits of PE-backed European tech companies since 1 Jan 2019

	EV ($B)	Date	Exit type	City	Country
Visma	12	Aug 2020	Secondary transaction	Oslo	Norway
Allegro	12	Oct 2020	IPO	Poznan	Poland
Nexi	8	Apr 2019	IPO	Milan	Italy
The Hut Group	7	Sep 2020	IPO	Northwich	UK
TeamViewer	6	Sep 2019	IPO	Goppingen	Germany
Avaloq	2	Oct 2020	Trade acquisition	Zürich	Switzerland
Trainline	2	Jun 2019	IPO	Edinburgh	UK
AutoStore	2	Jul 2019	Sponsor-to-sponsor	Nedre Vats	Norway
WebPros	2	Dec 2019	Sponsor-to-sponsor	Schaffhausen	Switzerland
Idealista	2	Sep 2020	Sponsor-to-sponsor	Madrid	Spain
EVRY ASA	2	Jun 2019	Trade acquisition	Oslo	Norway
eFront	1	May 2019	Trade acquisition	Paris	France
Skillsoft	1	Oct 2020	SPAC	Dublin	Ireland

SOURCE: dealroom.co

> Our success is a result of a commitment to innovation, our customers, our people, and an engaged and diverse corporate culture. For almost 15 years now, Visma has benefited from a supportive and highly knowledgeable private equity investor base which has enabled us to consistently expand our product offering and geographic footprint.

Merete Hverven
Visma
CEO

> I'd known Øystein Moan and Visma for many years, so when he called in 2006 and asked me if we wanted to invest, I could see this was a special opportunity. Even so, our expectations have been blown away by the scale and duration of Visma's success. 14 years into our investment (and with many more ahead), it is growing faster than ever, and it's been a privilege to have been so involved with the company's journey from $500M to $12B, with so much left to come.

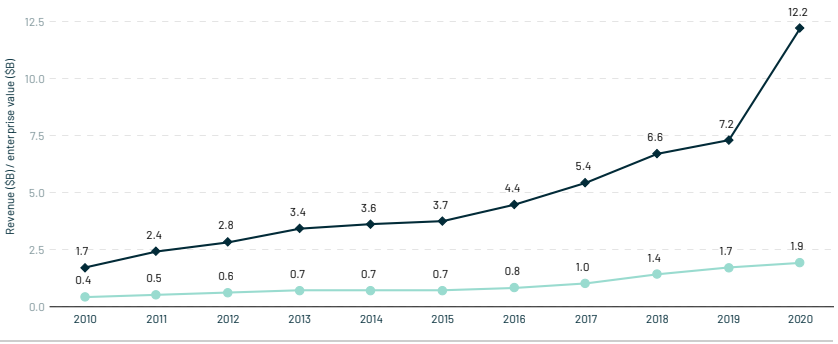
Nic Humphries
Hg
Senior Partner

As Europe's most valuable PE-backed software company, Visma represents an interesting case study. Visma first took on private funding from Hg in 2006, moving away from the constraints of a public listing in order to drive longer-term investment in the company's strategy. The CEO at the time, Øystein Moan (now Chair), had joined Visma in 1997 when it was a $25M revenue Norwegian software business. Alongside Hg, Moan has taken it to $2B of annual revenue and a $12B+ EV. Visma coupled an early focus on SaaS (before many other providers even considered this delivery model) with an M&A strategy targeting innovative businesses in new geographies and product areas, allowing it to increase its own pace of innovation even as the business scaled. Visma has scaled to more than 1M SMB customers, served almost entirely through SaaS platforms, making it Europe's largest "local" SaaS software provider by revenue. The case study also highlights how it is possible to grow to a large size by combining a number of small, local markets under a single cohesive strategy, alongside long-term investment and a team of experienced operators.

Visma's growth trajectory as measured by revenue ($B) and enterprise value ($B)

LEGEND

- Revenue ($B)
- Enterprise value ($B)



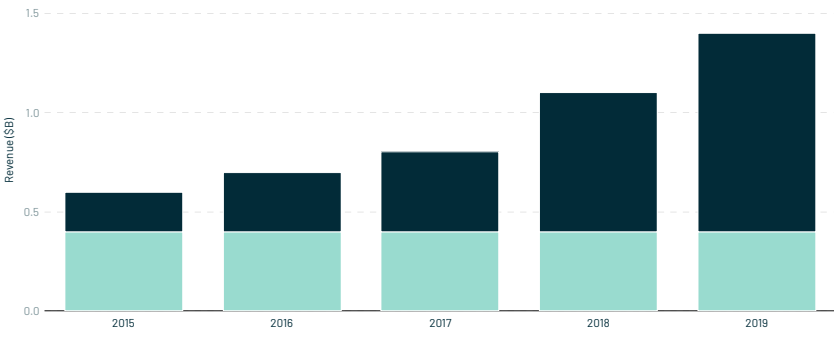
SOURCE: Hg

An interesting aspect of Visma's journey is that it has successfully navigated the transition to the cloud where many others have struggled. Visma has scaled its SaaS revenues from 29% of total software revenue in 2015 to 71% in 2019. Most impressively, it has added SaaS revenue as pure growth on top of its existing on premise revenue base. Today, Visma has more than $1B in SaaS revenue, making it easily one of the largest SaaS companies to have scaled from Europe. This is a remarkable achievement in and of itself, but to have done so in a core market footprint of nine small European countries, of which the largest has a population of just 17M, makes it all the more impressive as a case study into Europe's hidden tech giants.

Visma's software revenue ($B) evolution by SaaS versus on premise

LEGEND

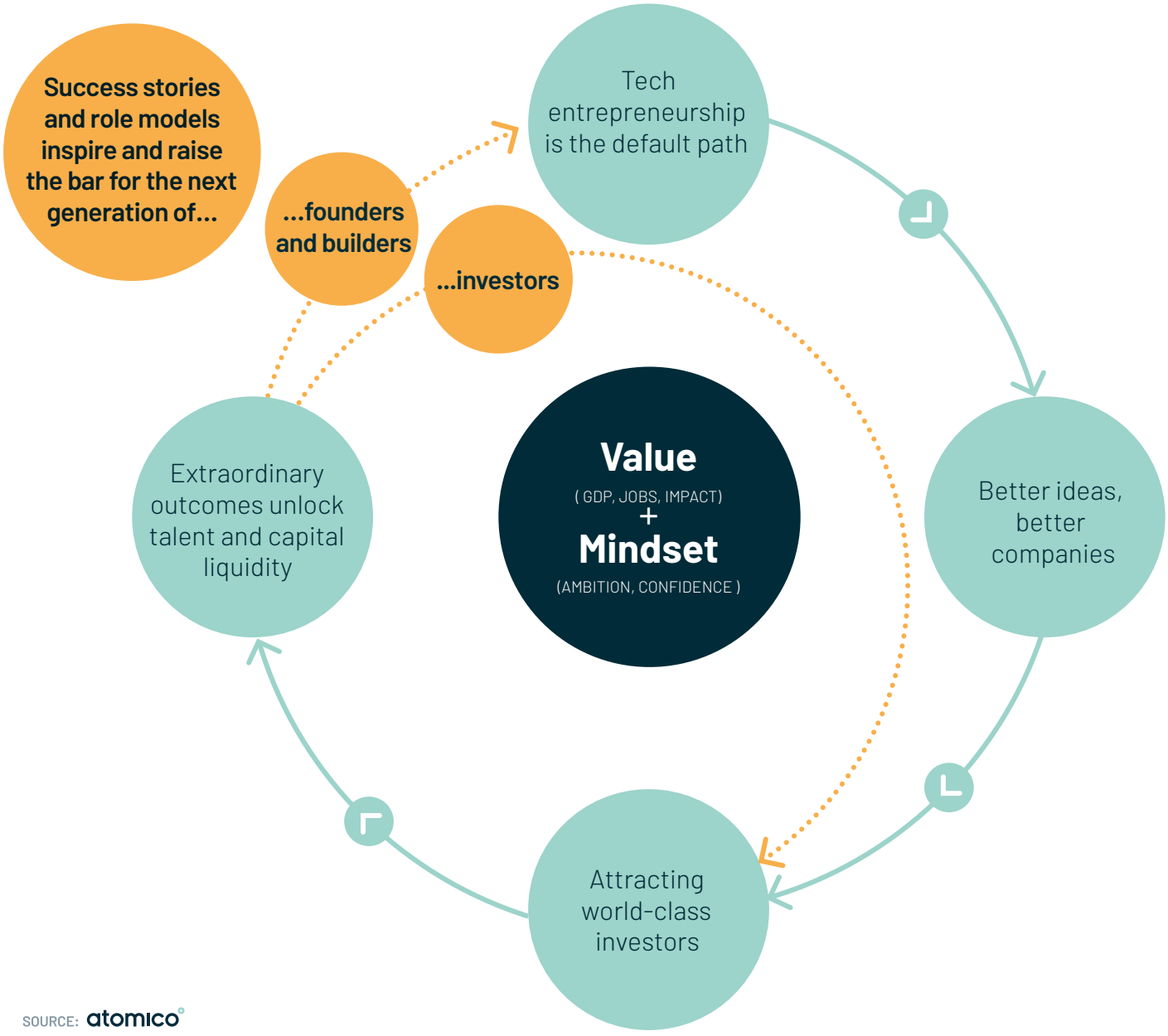
- On premise
- SaaS



SOURCE: Hg

As far as European tech is concerned, the worlds of VC and PE have historically not overlapped a huge amount. In fact, they have mostly existed as separate islands altogether - to the detriment of the tech ecosystem as a whole. The fact that these circles of capital and talent only overlap at the margins misses out on the potential for increased scale and liquidity. Europe's flywheel is dependent on building a talent and capital marketplace that is liquid and systematically recycles at scale.

The European Flywheel



SOURCE: atomico

All in all, and to coin a very European term, this "ever closer union" represents a healthy development for the liquidity of European capital and talent markets. The convergence of VC and PE in tech has the potential to create greater optionality in terms of potential paths to liquidity. There is a talent upside too if these worlds come together. A hallmark of PE investors is their network of experienced, tier one executive talent - people that run organisations of thousands of employees, P&Ls of $100s of millions, and products sold into thousands of companies.

Why wouldn't the European early-stage ecosystem want to be closer to such a talent pool?

05 Builders

How did founders cope with the upheavals of 2020?

What does Europe's tech talent look like now? And how has Covid-19 affected the region's tech hubs? Founders and companies have emerged resilient but their mental wellbeing has been tested to the extreme. Demand for talent has bounced back from the lows of spring. And virtual working has flung open the doors of the ecosystem and spurred the growth of emerging hubs.

05.1
Founders

Resilient But Exhausted

Although 2020 has the potential to be another record-breaking year in terms of capital invested in Europe, it has been an intense and difficult ride for many founders.

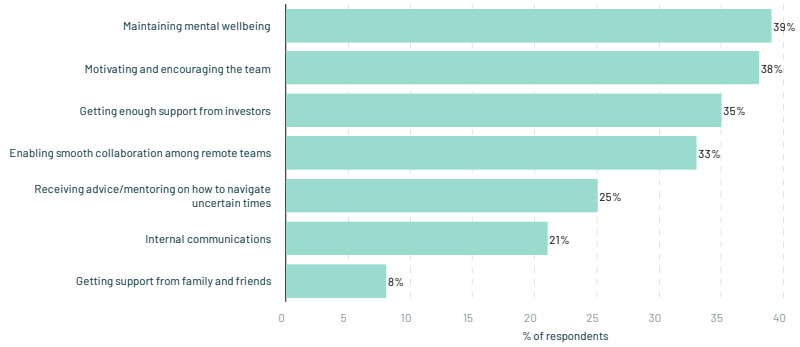
This chapter sets out to understand how the journey of starting and building a company has evolved in 2020 against the backdrop of the ongoing Covid-19 pandemic and uncertain and volatile macroeconomic conditions. As well looking in the rear-view mirror on the past year, this also takes a forward-looking view at the journey ahead.

- Almost 50% of founder respondents to the survey believe the ecosystem has proven resilient in the face of an extraordinary year. But the challenges of 2020 have also taken a toll on the founder community. When asked to share the three biggest challenges that they have personally experienced over the past 12 months, the most frequently cited challenge has been maintaining mental wellbeing. The challenges of navigating this year have not only taken an individual toll on founders, but have also created a set of new challenges for their teams. This is reflected by the fact that the second most frequently cited challenge shared by founders has been motivating and encouraging their teams.

In the last 12 months, what have been your three biggest challenges as a founder?

NOTE:

Founders only. Numbers do not add to 100 as respondents selected up to three options.



SOURCE: The State of European Tech Survey

- The most frequently cited personal challenges cited by founders varied according to the gender of the founders. Men most commonly experienced challenges related to motivating and encouraging their teams, enabling smooth collaboration among remote teams, and maintaining mental wellbeing. Founders that are women were more likely to have cited the challenge of maintaining mental wellbeing, more likely to have felt insufficiently supported by their investors, and also more likely to have felt a lack of advice and mentorship on how to navigate the uncertain times. Founders that are women, however, are less likely to cite internal communications and team motivation as challenges compared to founders that are men.

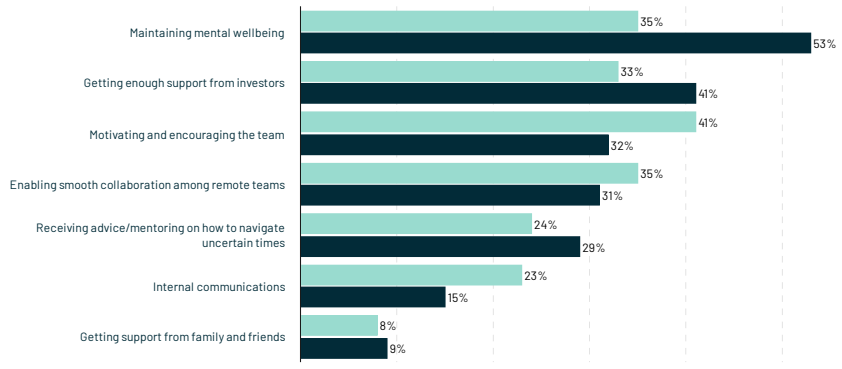
In the last 12 months, what have been your three biggest challenges as a founder?

LEGEND

- Men
- Women

NOTE:

Founders only. Numbers do not add to 100 as respondents selected up to three options.



SOURCE: The State of European Tech Survey

The responses also showed material variance when looking at the experience level of founder respondents. The impact of the past 12 months on first-time founders appears to have been greater on their ability to maintain mental wellbeing than for more experienced, repeat founders. They do, however, appear to be less likely to have felt that they experienced challenges in getting sufficient support from their investors. Based on the survey responses, one of the main advantages experienced by experienced, repeat founders was their ability to tap into a network for advice and mentorship on how to navigate the uncertain times.

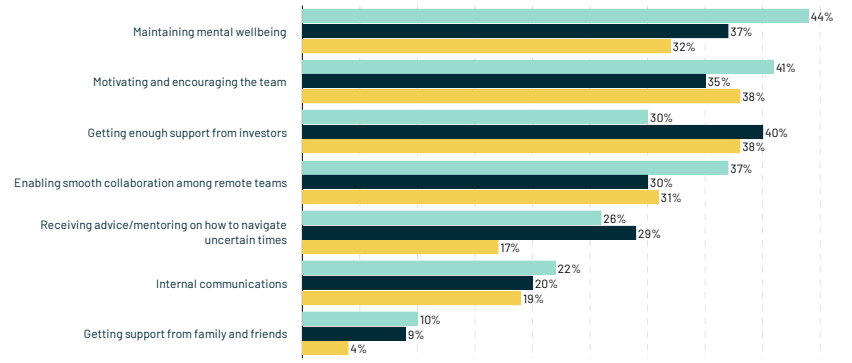
In the last 12 months, what have been your three biggest challenges as a founder?

LEGEND

- First-time founder
- Repeat founder with limited experience in scaling own company
- Repeat founder with significant previous experience in scaling own company

NOTE:

Founders only. Numbers do not add to 100 as respondents selected up to three options.



SOURCE: The State of European Tech Survey

Kim Ogulive
Maria 01
CMO

During the crisis's peak, our focus was to listen, support, and connect the entrepreneurs to the right opportunities.

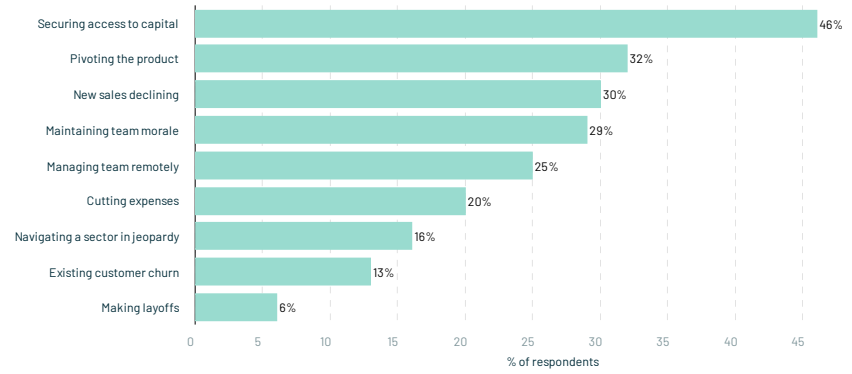
The pandemic made the Maria 01 community stronger and proved how this startup campus transcends the space. Furthermore, during a crisis, people resort to people as a means for support and guidance. During the crisis's peak, our focus was to listen, support, and connect the entrepreneurs to the right opportunities. The measures taken to support our startup companies went from granting rent waivers, actively sharing information related to grants to weekly peer support calls to listen, and map out struggles from the entrepreneurs and possible solutions.

Founders were also asked to share the challenges they faced at the company level. The most frequently cited challenge by far was securing access to capital, followed then by pivoting their products, managing revenue declines and maintaining company morale. In many ways, 2020 has been a year of the pivot as companies sought to respond rapidly to adapt their products and operating models to accommodate the 'new normal' in terms of changing working and personal behaviours and to find ways to creatively grow revenue.

In the last 12 months, what have been your three biggest challenges as a company?

NOTE:

Founder respondents only. Numbers do not add to 100 as respondents selected up to three options.



SOURCE: The State of European Tech Survey

In the context of the responses founders shared around the biggest challenges they faced in 2020 on a personal and company level, it's perhaps unsurprising that fundraising is cited as the most important form of support they seek from their investors. The high number of respondents who cited support in defining their go-to-market defining their go-to-market strategy and in securing new customers also makes sense in the context of the uncertainty in the spending environment that many founders will have experienced. Last year, 25% of founders shared a sense of isolation and loneliness at the top so it's interesting to see a need from founders to feel part of a 'community' to connect with other founders.

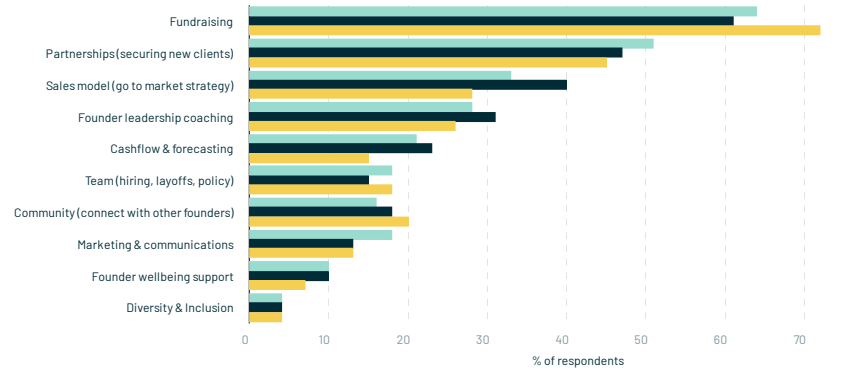
In which areas do you think support from investors is most important?

LEGEND

- First-time founder
- Repeat founder with limited scaling experience
- Repeat founder with significant previous scaling experience

NOTE:

Founders only. Numbers do not add to 100 as respondents selected up to three options.



SOURCE: The State of European Tech Survey

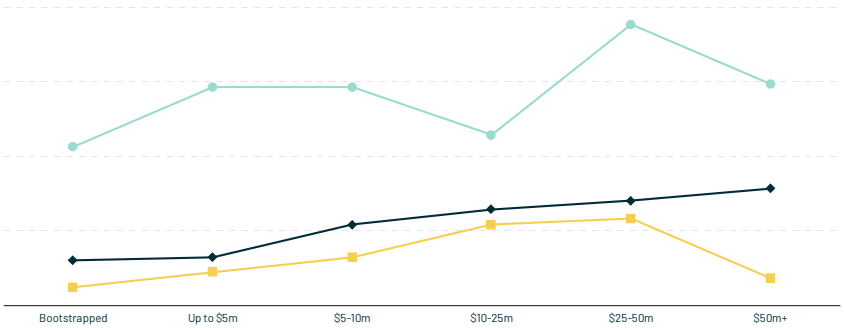
State of European Tech 2020 report launch

It is interesting to see how the needs of founders evolve as their companies scale. As founders move along the company-building journey, investor support with fundraising and people-related challenges are increasingly cited as important. Unsurprisingly, as they scale and reach product-market fit, founders are less likely to cite the importance of support on generating new sales. There are some areas where the level of need from founders was consistent across founders from companies of different stages of development: support with leadership coaching and access to a founder community.

In which areas do you think support from investors is most important?

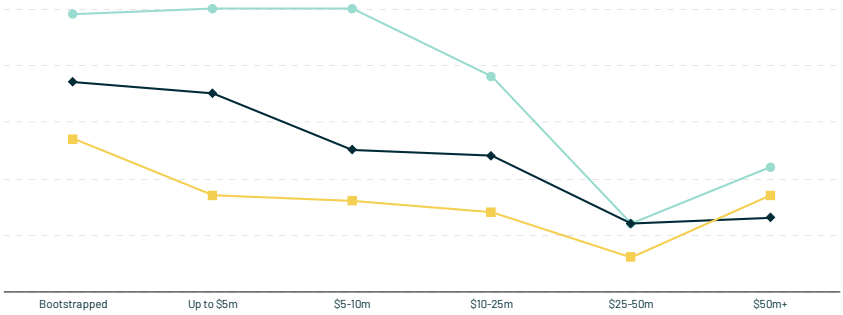
LEGEND
- Fundraising
- Team (hiring, layoffs, policy)
- Founder wellbeing support

Increased need with scaling



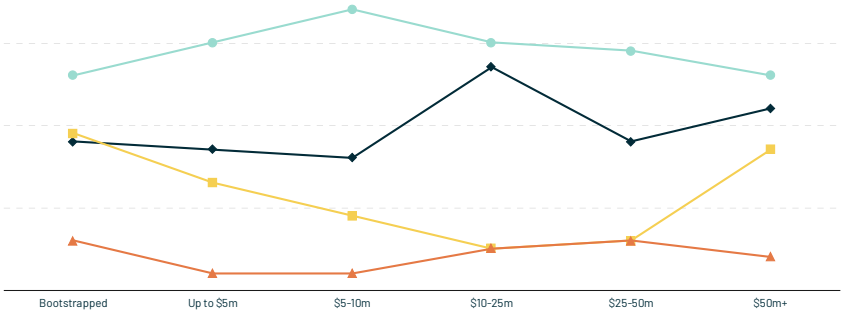
LEGEND
- Partnerships (securing new clients)
- Sales model (go to market strategy)
- Cashflow & forecasting

Decreased need with scaling



LEGEND
- Founder leadership coaching
- Community (connect with other founders)
- Marketing & communications
- Diversity & Inclusion

Sustained need throughout scaling

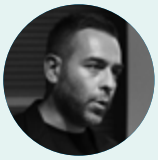


NOTE:

Founders only. Numbers do not add to 100 as respondents selected up to three options.

SOURCE: The State of European Tech Survey

> The lack of an advanced ecosystem can be a challenge for building a tech company that wants to win the global market from Italy. That said, overcoming those challenges in the early days can strengthen you, and in the long run, those challenges can even turn into advantages.



Filippo Conforti
Commerce Layer
Founder and CEO

Managing a Team

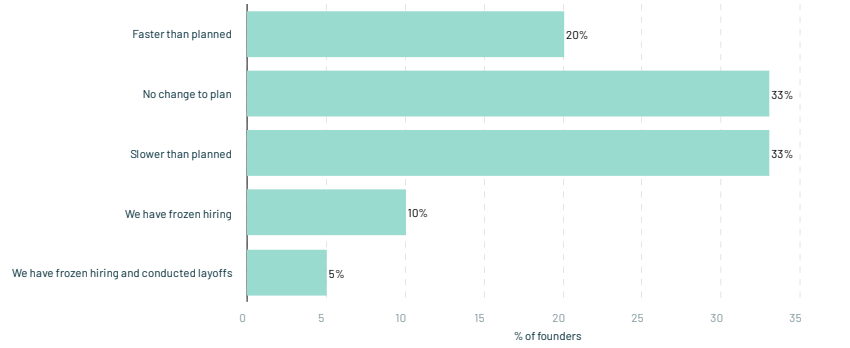
For tech companies, talent is a critical competitive advantage, and the ability to attract and retain the best people plays a - if not the - pivotal role in the success of a company. Remote work and the adoption of distributed recruitment strategies undoubtedly add complexity to unlocking that talent advantage.

The speed of scaling an organisation can be so influential on success. Go too fast and you put everything from runway, execution and culture at risk. Go too slow and you risk underinvesting and falling behind the pace of the market or competitors. It is a delicate balancing act and uncertain market conditions only make that harder. It's interesting then to see how founders adjusted their hiring plans in 2020. A third chose to stick to plan and made no changes to their hiring plans. Another third hired slower than planned, while one in five founders actually accelerated their hiring plans, presumably emboldened by positive tailwinds experienced by their company. Only 10% of founders froze hiring altogether and just 5% shared that they had also conducted layoffs.

In the last 12 months, how have you changed your hiring plans?

NOTE:

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



SOURCE: The State of European Tech Survey

Stock options are an effective tool to attract, incentivise and retain talent and the latest generation of companies from Europe are rewarding their most talented executives and employees at levels on par with companies from the US now. There is still work to do, and we are starting to see different degrees of ambition around Europe. Countries like Germany are currently working on a set of very concrete measures around employee stock options schemes and preparing draft legislation that includes incentives to increase the distribution of shares to startup employees.

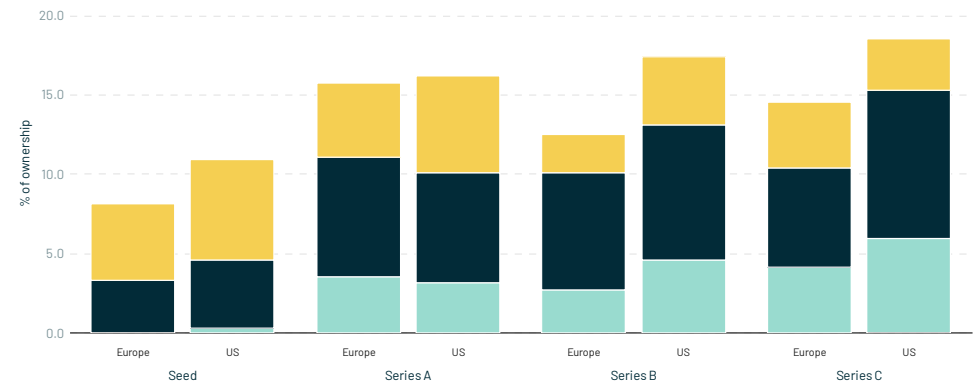
Employee ownership by funding round in the 50th percentile by region

LEGEND

- Executives (Europe)
- Executives (US)
- Staff + Other (Europe)
- Staff + Other (US)
- Unissued (Europe)
- Unissued (US)

NOTE:

This details equity held by employees and unissued options excluding founders shares. Equity not related to salary nor incentives.



SOURCE: optionimpact

- Remote working has been a huge adjustment for the tech industry and the global economy as a whole and has, of course, created new considerations for founders in how to best manage their teams and build and nurture their culture. The effect of the pandemic has been to shift sentiment around remote work to be far more favourable than previously. 76% of founders responded that they are supportive of remote work for the long-term future, an uplift from 54% before the pandemic. The future of work will be reshaped.

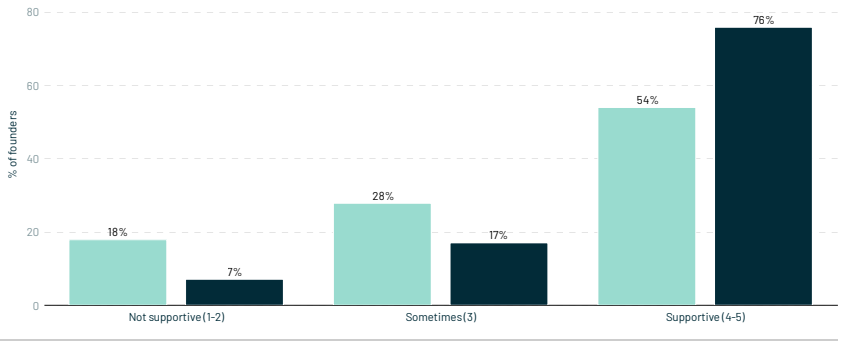
What was your sentiment towards remote work at your company before the start of the Covid-19 pandemic versus today?

LEGEND

- Pre Covid-19
- Today

NOTE:

Founder respondents only. The sentiment was measured on a scale of 1 to 5. For the purpose of this chart, data was aggregated as per legend.



SOURCE: The State of European Tech Survey

- The degree of support for moving towards a remote-first culture varies by stage of the company. Interestingly, founders of larger companies were less in favor of fully flexible work, while founders still at inception and building their company, seemed more open to exploring a fully distributed setup.

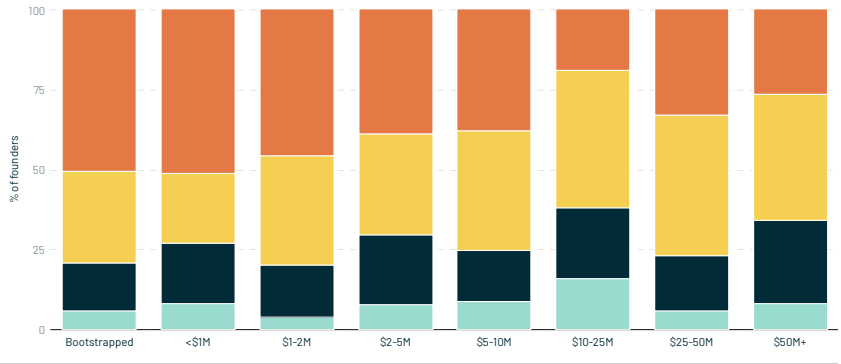
What is your sentiment towards remote work at your company today? by total capital raised

LEGEND

- Not supportive
- Neutral
- Supportive
- Extremely supportive

NOTE:

Founder respondents only.



SOURCE: The State of European Tech Survey

- One of the potential challenges of remote work is the ability to build a strong culture and sense of belonging. One way to bring people together and to align them is to have a clear mission or purpose. The past 12 months appear to have placed an even greater importance on the mission / purpose of a company for its employees, especially for larger organisations where maintaining a strong culture at scale is that much harder.

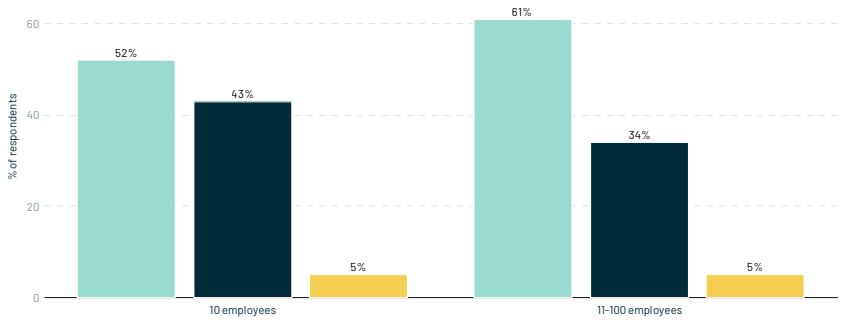
In the last 12 months, how have you seen a change in employees placing greater emphasis on the mission / purpose of the company?

LEGEND

- Increase
- No change
- Decrease

NOTE:

Founder respondents only.



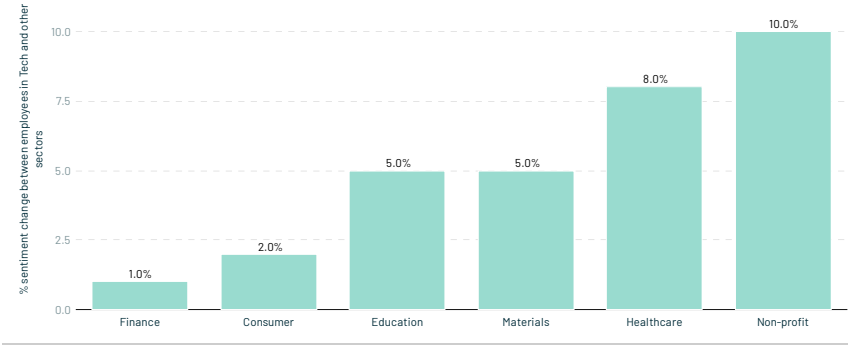
SOURCE: The State of European Tech Survey

- The rise of purpose-driven companies in tech is accelerating, but, for now, it would appear that employees working in several other industries, including the non-profit, healthcare and education sectors, are more likely to feel inspired by the purpose and mission of their organisation than those working in tech. The average score their employees provided on this question is 5-10% higher than for tech workers. In fact across the 12 industries tracked by Peakon, tech ranked in the bottom half.

Sentiment differential on purpose and mission of the company (%) for tech employees versus other sectors

NOTE:

Based on Peakon average survey score results for European companies to the statement "I'm inspired by the purpose and mission of our organisation.".



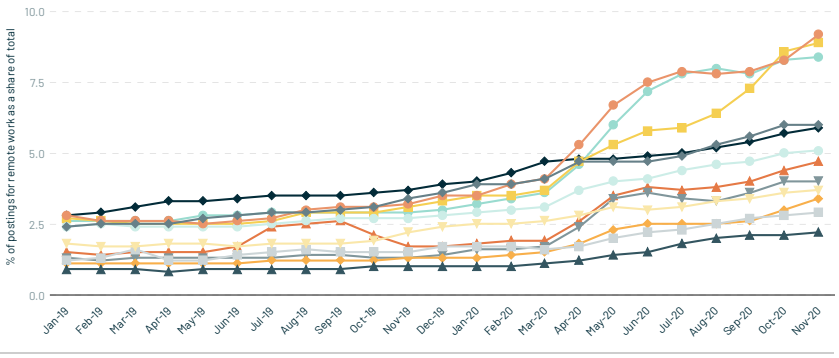
SOURCE: Peakon

- Perhaps unsurprisingly, the share of remote jobs has picked up steam since April 2020 but the pace of change has been different across Europe. Only a handful of countries have seen a steep acceleration such as the UK, Ireland and Spain.

Evolution of remote work as a share (%) of all job postings by country

LEGEND

UK	Netherlands
Germany	Sweden
Spain	Belgium
France	Switzerland
Italy	Ireland
United States	Austria



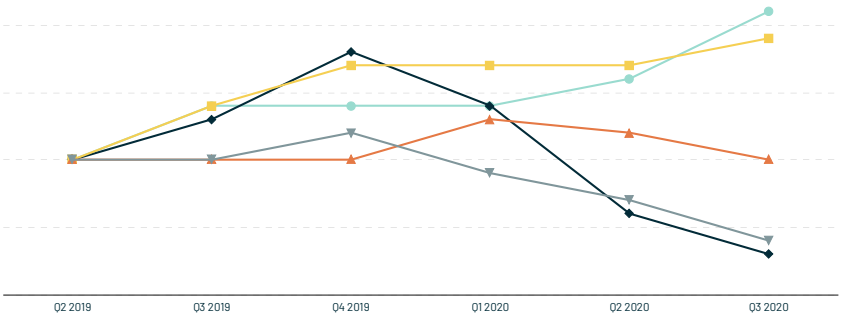
SOURCE: indeed

- The shift towards remote work is forcing founders to reimagine the purpose and value of their office space for their teams going forward. One factor that will unquestionably play a role in those decisions is an assessment of the cost and return on that investment. Covid-19 has impacted the demand for office space in cities across Europe to varying degrees. It's too early to make a call on the depth and long-term implications, but it's interesting to look at how the cost of prime office space has changed in different European tech hubs. The differences are striking; while prices in London and Stockholm have started to fall, they have actually continued to rise in Paris and Berlin.

Evolution of prime office rent cost for selected tech hubs, rebased to 100

LEGEND

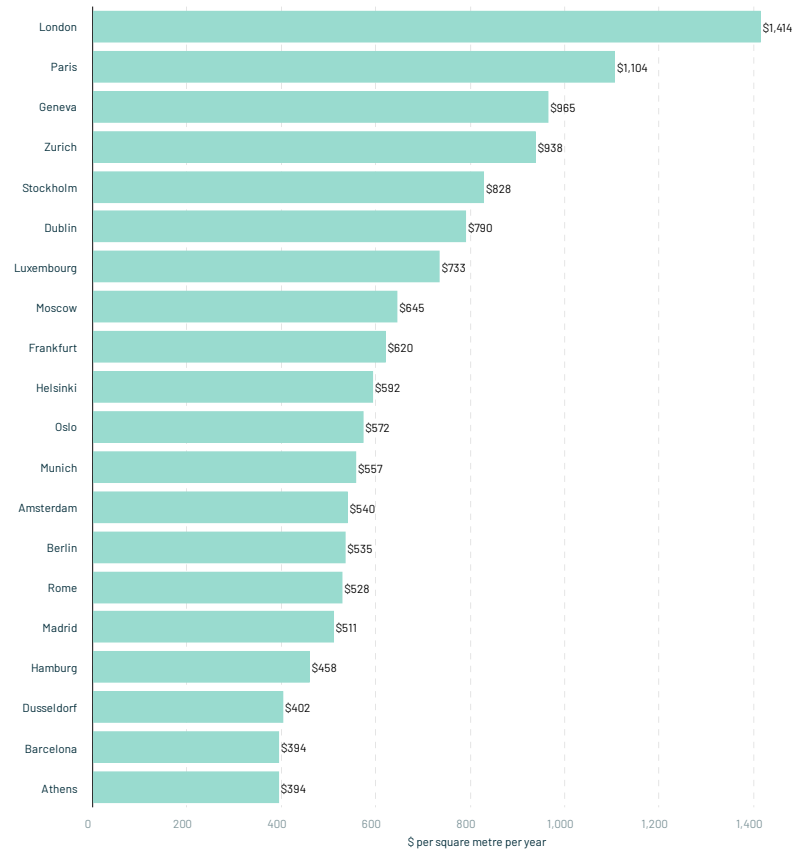
Paris
London
Berlin
Amsterdam
Stockholm



SOURCE: CBRE

In this context, the choice of location for founders remains an interesting and important question. London is a key destination for tech and entrepreneurial talent, but the changing nature of work and, specifically, an increased appetite to build remotely or in a distributed way has the potential to change the incentive models that have attracted talent for so long. What makes a city vibrant is the density of startups, talent and investors, but the premium cost of certain locations might become unjustified as more players in the ecosystem adopt remote work and/or distributed teams.

Cost of prime rent ($ per square metre per year) for office space by city, Q3 2020



NOTE:

Data converted at EUR:USD of 1.17, the rate on 30 September 2020.

SOURCE: CBRE

Karoli Hindriks
Jobbatical
Founder

As a relocation company directly affected by the pandemic, we saw very clearly that even throughout the turbulent year for travel, our number of relocations continued to grow. In fact, our relocations grew by 365% during 2020.

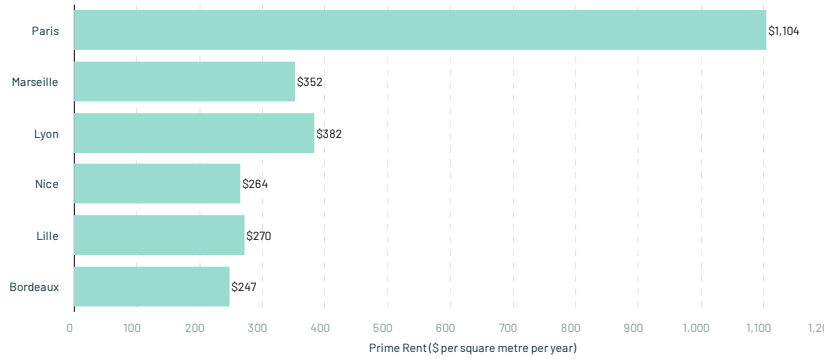
On one hand, technology helped improve the experience of the lockdown and many organisations saw that they can in fact operate remotely. On the other hand, we were more strongly than ever before reminded about the importance of human connection and, maybe for the first time ever, the limits of technology. As we come out of this new experience, organisations will increasingly trust their employees to work independently, and thus people will have more freedom to choose their own paths. At the same time, people will value physical togetherness much more than before the pandemic. This will create more organisations with greater flexibility for remote work, but will also balance that new paradigm with more meaningful time together in the same physical space. As a relocation company directly affected by the pandemic, we saw very clearly that even throughout the turbulent year for travel, our number of relocations continued to grow. In fact, our relocations grew by 365% during 2020.

Another thing that will likely emerge from this pandemic is the explosion of digital nomads. There are a few things that will lead to this: 1) Employees and their bosses know that they can work remotely. 2) People still have dreams of traveling and with travel having been restricted, this itch will find its relief as soon as the opportunity to travel resumes.

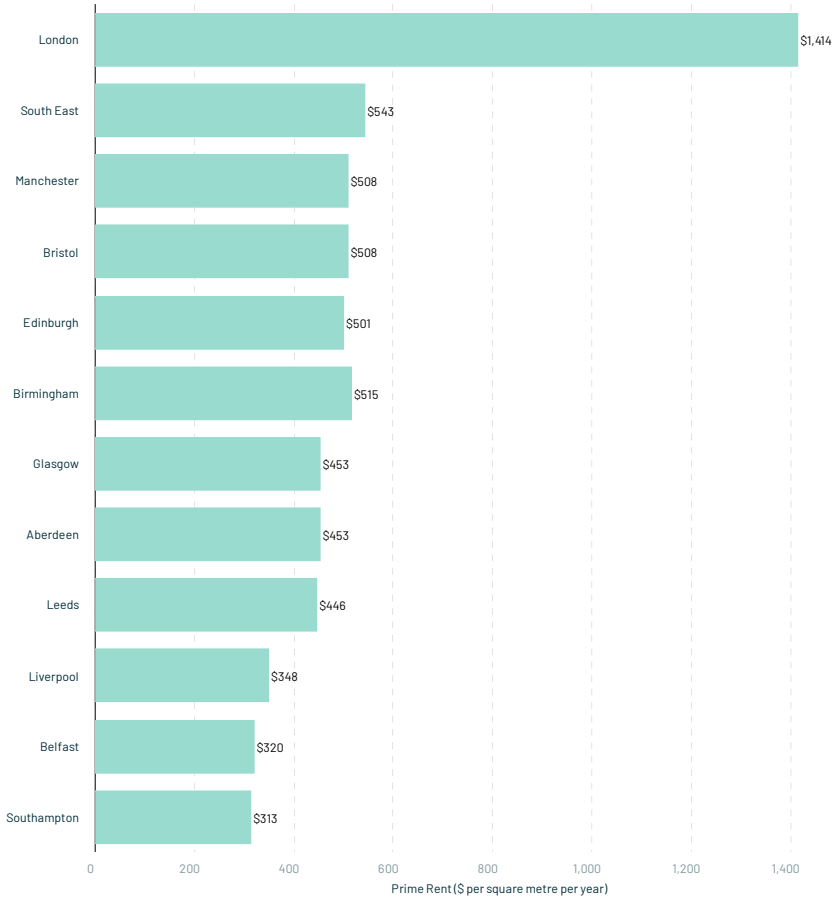
There are stark differences in the cost base of primary and secondary hubs and with Europe continuing to see tech activity grow in those cities, the rise of remote work might very well act as a strong tailwind to drive increased geographic diversification of entrepreneurial activity and startup communities across a greater number of hubs.

Cost of prime rent ($ per square metre per year) for office space by city, Q3 2020

France



United Kingdom



NOTE:

Data converted at EUR:USD of 1.17, the rate on 30 September 2020.

SOURCE: CBRE

Budgeting for a (Series A) team

How much does it cost to start and build a team in different European cities? We (still) don't have a perfect answer, but we are providing a revised version of our illustrative org chart for a Series A stage software-as-a-service (SaaS) company. We think it provides a reasonable benchmark on what a team might look like for this type of business at that stage.

- The dataset on rewards data (covering base salary and actual incentives) is provided by Aon and CBRE is provided the prime rent cost of office space dataset.
- We then built this out to give cost benchmarks for ten key European tech hubs, as well as provide a comparison with the equivalent cost to build the team from the Bay Area.
- Given the rise of remote work, we have revised down our estimates of sqm per headcount to account for employees who may have an assigned office space but chose not to be based there five days per week.
- No methodology is ever perfect, but this should help founders (and others) to understand what it costs to set up and build in different European tech hubs.

Assembling your Series A dream team

role / number of headcounts

Engineering
- 2 Senior Software Engineers
- 2-5 Software Engineers
- 1 UX Designer
- 1 Data Analyst

Product
- 1-3 Product Managers

Sales & Marketing
- 1 Sales Director/VP Sales
- 1-2 Account Executive
- 2-4 SDRs
- 2-4 Customer Success
- 1 VP/Marketing Director
- 2-3 Marketing Managers

Operations
- 1 Operation Manager/ Chief Operations Officer
- 1 Office Manager
- 1 HR Manager/Recruiter

Finance
- 1 Finance Manager

Budgeting for your team of 20-30 people

$M per year

#	CITY	SALARY COST ($M)			OFFICE SPACE COST ($M)			TOTAL COST BASE ($M)		
		20PPL	AVG.	30PPL	20PPL	AVG.	30PPL	20PPL	AVG.	30PPL
	Bay Area	2.96	3.48	4.00	0.16	0.18	0.21	3.12	**3.67**	4.21
1	Copenhagen	2.21	2.70	3.19	0.05	0.06	0.07	2.26	**2.76**	3.26
2	London	1.93	2.25	2.56	0.25	0.30	0.34	2.18	**2.54**	2.90
3	Munich	2.13	2.49	2.86	0.10	0.12	0.13	2.23	**2.61**	2.99
4	Dublin	1.90	2.21	2.52	0.14	0.17	0.19	2.04	**2.37**	2.71
5	Berlin	1.92	2.27	2.62	0.20	0.23	0.26	1.95	**2.28**	2.61
6	Amsterdam	1.95	2.25	2.56	0.10	0.11	0.13	2.01	**2.38**	2.74
7	Paris	1.75	2.05	2.34	0.10	0.11	0.13	2.04	**2.37**	2.69
8	Stockholm	1.64	1.92	2.20	0.15	0.17	0.20	1.79	**2.09**	2.40
9	Barcelona	1.53	1.78	2.02	0.07	0.08	0.09	1.61	**1.86**	2.11
10	Madrid	1.46	1.68	1.91	0.09	0.11	0.12	1.55	**1.79**	2.03

NOTE: 'Series A team' composition is for illustrative purpose. The headcounts are based on a proprietary dataset of Series A SaaS companies compiled by Atomico. 'Salaries cost' is based on Aon's rewards data for technology and sales functions. The data accounts only for base salary and actual incentives (average 50th percentile) across a number of job titles best representative of those referred to in the Series A team. For the 'office space cost', the data is based on CBRE estimates ($/sqm) per city and an average of 5-7 sqm per pointed headcount (the number of people who have this as an assigned office base although may not be there 5 days a week). For a team of 20-30 people we estimated that the space required needed to be based on a total headcount of 30-40 people (respectively) to accomodate for further growth, while being mindfull of the rise of remote work. Radford data is as of October 2020 and CBRE data is as of September 2020.

SOURCE: CBRE AON

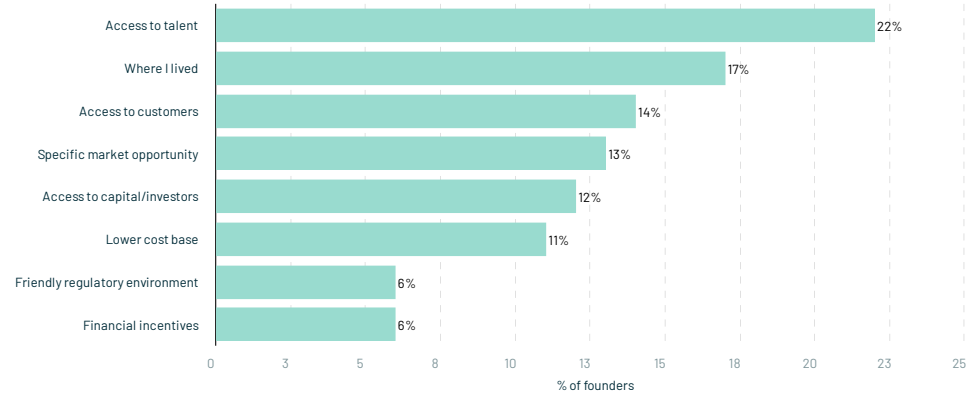
05.2
Recycling Talent

Talent is everything when it comes to building a successful company. It's no surprise then that access to talent tops the list for founders when asked to share the most important factors they considered when choosing where to locate their companies. Looking forward, it will be interesting to track how this changes in the years ahead. Are we going to see a shift in the perceived importance of proximity to a talent base from the choice of founding location if the trend towards building companies in a remote-first and distributed way continues? The fact that the response 'where I lived' ranks so highly across the key considerations also speaks to the idea that the notion of moving to build a company to optimise for geographical proximity to talent, capital or customers may be eroded by the changing acceptance of virtual and remote operations.

What was the most important practical business considerations for you when choosing where to locate your company when you founded it?

NOTE:

Founders respondents only.



SOURCE: The State of European Tech Survey

The differences between founders based on their prior entrepreneurial experience are significant. The most experienced, repeat founders place an elevated importance on access to talent, presumably informed by their experiences in attracting and retaining talent in prior entrepreneurial endeavours. These founders also appear to be least influenced by the idea of 'starting where they live' compared to less experienced and first-time founders.

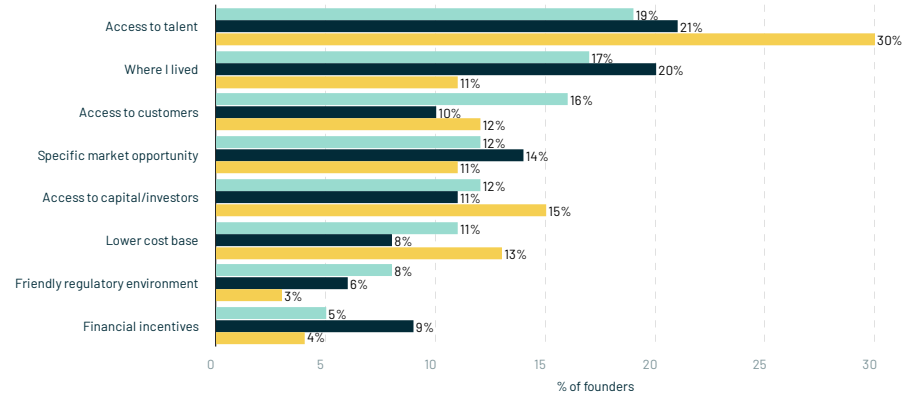
What was the most important 'business' consideration for you when choosing where to locate your company when you founded it?

LEGEND

- First-time founder
- Repeat founder with limited experience scaling company
- Repeat founder with significant experience in scaling company

NOTE:

Founders respondents only.



SOURCE: The State of European Tech Survey

European startups enabling access to remote employees

The toolkit to support founders in building their companies in a remote-first way is itself a vibrant category of entrepreneurial activity and early-stage investment. A number of European startups are targeting this opportunity and have gone on to raise from leading early-stage investors. As this category develops and as the toolkit and tech stack for founders is built out, it's likely that more founders will feel confident in choosing to go down the path of building their companies agnostic of any fixed office location.

Lano
HR Solution for distributed teams

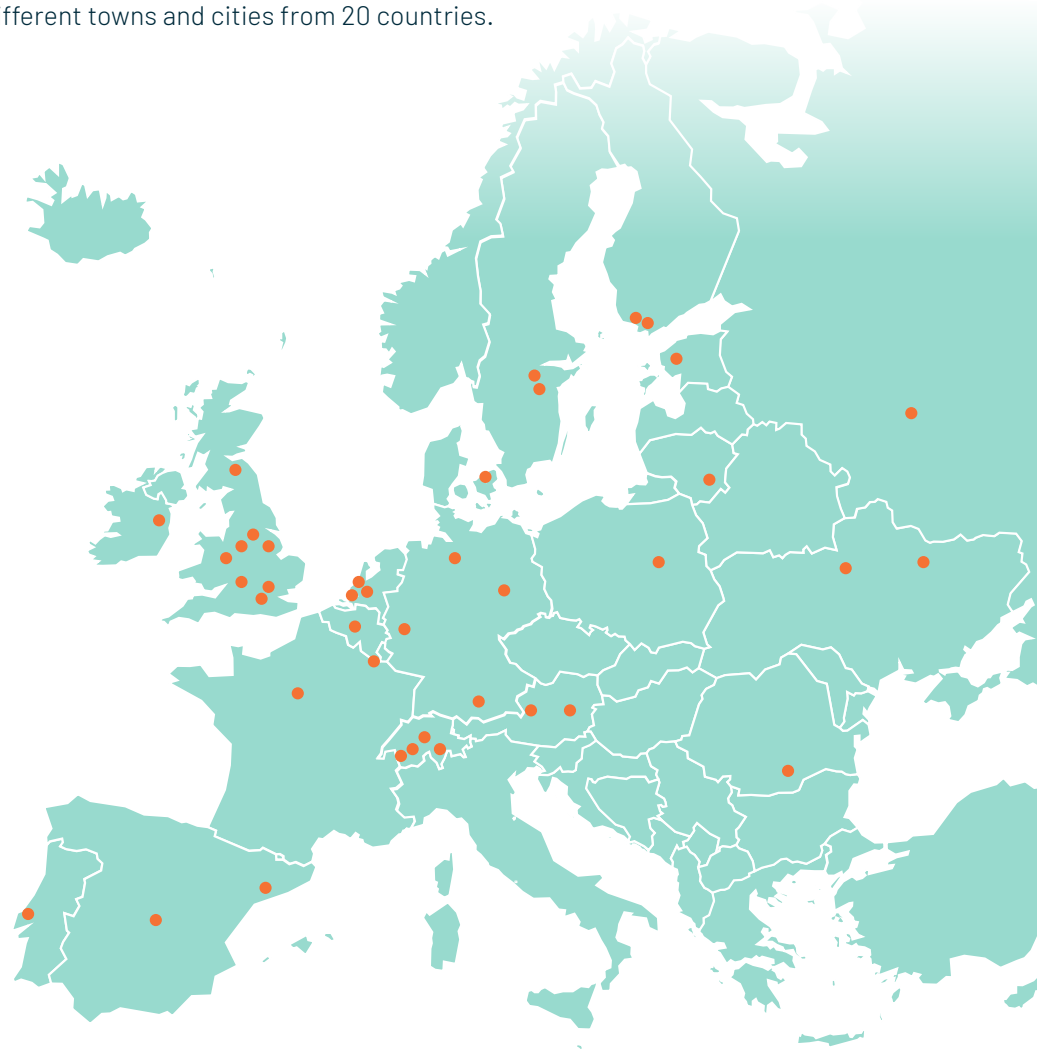
Oyster HR
HR Solution for distributed teams

Remote
HR Solution for distributed teams

Safety Wing
Insurance for nomads

European founders have never had greater optionality in terms of where to start and build their company, including - of course - the option to build remote-first with no fixed headquarters. The idea that great companies can come from anywhere has never been more true as demonstrated by the fact that European founders have now succeeded in building billion-dollar companies in 40 different towns and cities from 20 countries.

Overview of cities with VC-backed $1B+ European tech companies



SOURCE: dealroom.co

Beyond the main hubs of London, Paris or Berlin, geographic diversification has been happening at a rapid pace with 24 new cities seeing a homegrown VC-backed company scale to billion-dollar valuation in the last five years. A decade ago, this was just a handful of European cities. As such, it's exciting to see entrepreneurial activity and startup communities flourishing in cities as diverse as Vilnius, Bucharest or Bristol.

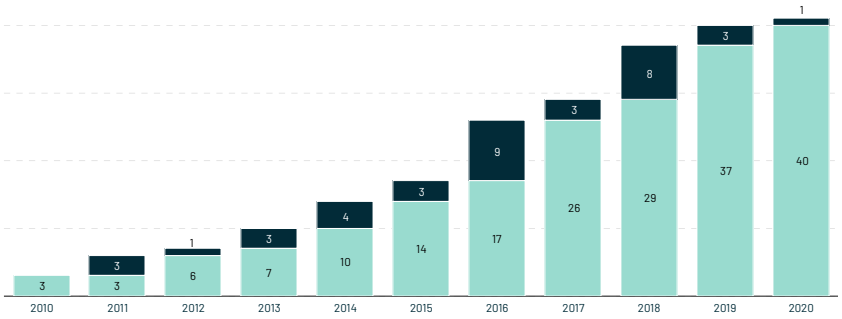
Number of new and total unique cities to have birthed a $1B+ company by milestone year

LEGEND

- Existing
- New in year

NOTE:

Milestone year is defined as the year the company reached a $1B+ valuation milestone.



SOURCE: dealroom.co atomico

The geographic diversification is visible in the rise of billion-dollar companies from secondary hubs across Europe. In Germany, for example, seven of the 16 VC-backed $1B+ tech companies have been founded and built outside of Berlin, the country's primary tech hub. Though more $1B+ companies have emerged from London than anywhere else in Europe by some distance, 30% of the UK's unicorns have emerged from outside the capital. By contrast, Paris is the only city within France - to date - to have produced a $1B+ company; with 11 in total, this puts Paris second only to London.

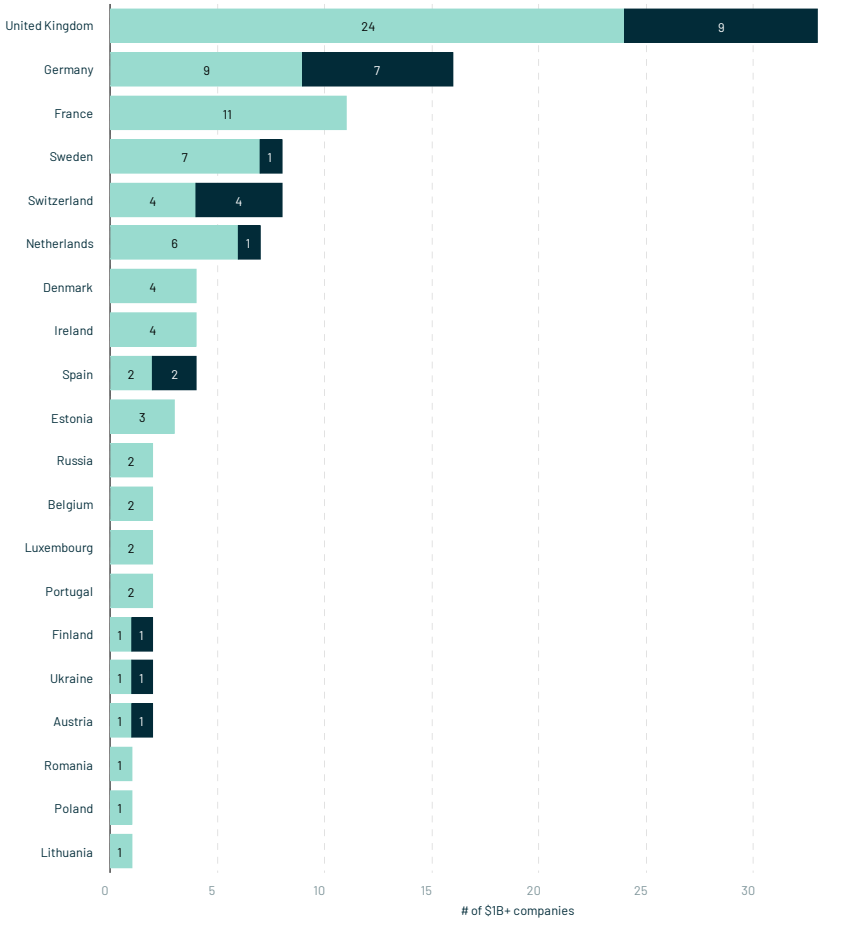
Number of $1B+ companies by main and secondary hubs by country

LEGEND

- Main hub
- Secondary hubs

NOTE:

Main hub is defined as the number one city by funding in the last 5 years.



SOURCE: dealroom.co

Talent Recycling

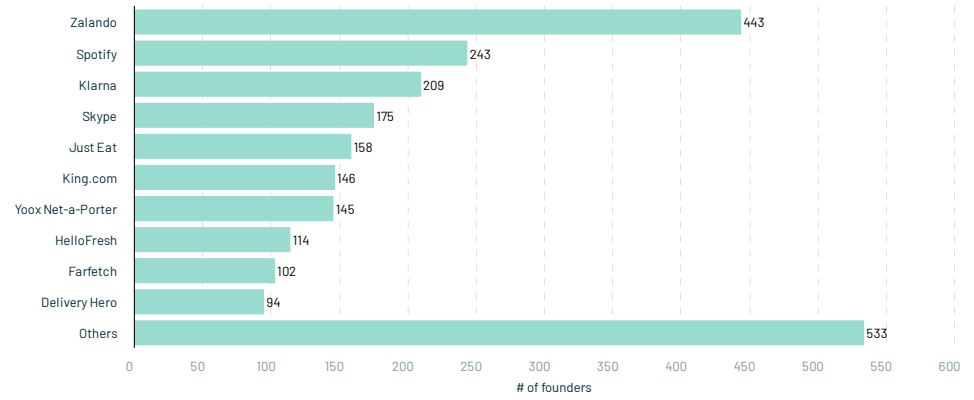
The more that Europe sees the emergence of successful companies that have scaled to billions of dollars of enterprise value, hundreds of millions of revenue or thousands of employees, the deeper and broader it is able to grow its pool of experienced operators that have helped to build and scale world-class products, design, build and run large-scale organisations, or grow billion-dollar P&Ls.

As these companies then go through the full lifecycle, including an exit event via an IPO or M&A, they can play an important role in injecting scale and liquidity into the talent marketplace. This potential to recycle talent is a crucial enabler to accelerate the progression of the ecosystem by unlocking new generations of founders and operators that are powered by extensive knowledge and networks hard earned through their exposure to the ups and downs of the company-building process.

To contribute to a better understanding of the scale of talent recycling at work in the European tech ecosystem, we have attempted to quantify the number of founders that have started companies having previously gained experience in some of Europe's most successful companies. More specifically, this focused on the founder alumni networks of 24 European tech companies that have previously scaled to a valuation of $5 billion or more.

In total, it was possible to identify more than 2,350 individuals that currently list themselves as founders or co-founders of companies, equating to around an average of almost 100 founders for each one of the 24 'parent' companies in the initial cohort. Remarkably, more than 50% of the founders have emerged from one of just five companies: Zalando, Spotify, Klarna, Skype and Just Eat. It's notable that four of the top five companies all went through landmark liquidity events, either via IPO or M&A, but it's also interesting to see Klarna make the top five. This speaks to the fact that even if companies stay private longer (Klarna was founded in 2005), these companies are still contributing meaningfully to the talent marketplace as private companies.

Number of founders spun out of $B+ companies



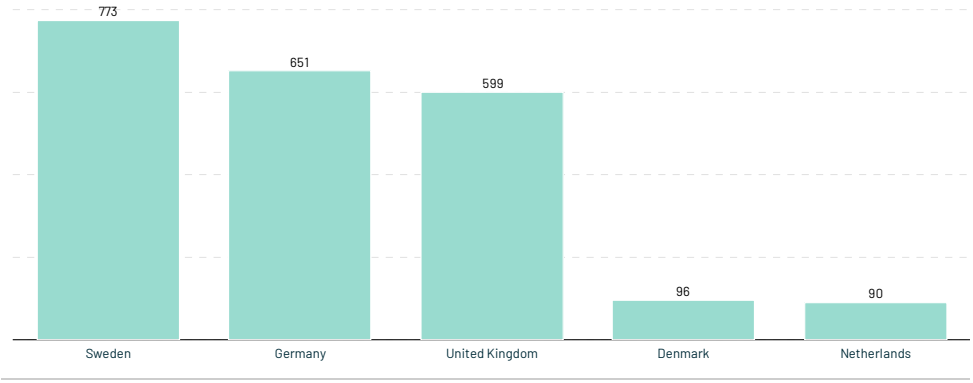
NOTE:

Ex-operators of a selection of 24 companies who currently self identify as "founder" or "co-founder," as of October 2020

SOURCE: atomico

- It is also interesting to see the flywheel spinning faster in some countries. Rocket Internet made news this year as it chose to delist after being public since 2014 and it is striking to see the positive flywheel of the "clone factory", as famously conceded by Samwer, on the German ecosystem and beyond. Zalando, Delivery Hero and HelloFresh have one thing in common: Rocket Internet.

Top 5 countries by number of founders spun out of $5B+ companies



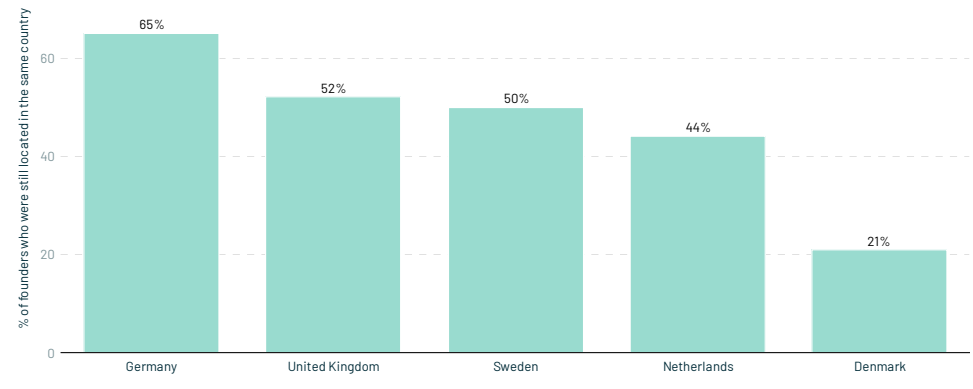
NOTE:

Ex-operators of a selection of 24 companies who currently self identify as "founder" or "co-founder," as of October 2020.

SOURCE: atomico

- It's also interesting to explore the extent to which the alumni founders built companies within the same country as the HQ country of their 'parent' company. In other words, how many ex-Spotifiers have founded a company in Sweden? This lens reveals some interesting differences. While 65% of the founders that have spun out of German success stories have gone on to found their startup in Germany, this is just 52% for the UK and 50% Sweden and even lower for Denmark. This can be explained by the fact that certain companies built their talent base in a more geographically concentrated way with a large share of talent located in one country, while others built their employee bases in a more distributed way across many different locations. Skype, for example, famously was built as a European company with a meaningful presence in multiple cities, such as London and Tallinn.

Share of founders (%) who started their company in the same country as $5B+ company



NOTE:

Ex-operators of a selection of 24 companies who currently self identify as "founder" or "co-founder," as of October 2020.

SOURCE: atomico

Selected programmes to identify, support and invest in next generation European talent

The growing depth and liquidity of the operating talent pool in Europe has made it an attractive place to establish programmes that seek to identify and support individuals to make the transition into entrepreneurship and then invest with a talent-first mindset, as pioneered by Entrepreneur First.

Antler
Talent Investor

Creative Destruction Lab
Fellowship

Entrepreneur First
Talent Investor

Heartcore
Fellowship

On Deck
Fellowship

Zinc
Talent Investor

The growing pool of experienced talent is also evident in the growing numbers of rounds being raised by teams of founders that have prior founding experience over the past five years. The number of companies with a founding team composed entirely of founders with prior founding experience that raised more than $10M in funding in 2020 represented 11.6% of total companies, versus 8.9% in 2016.

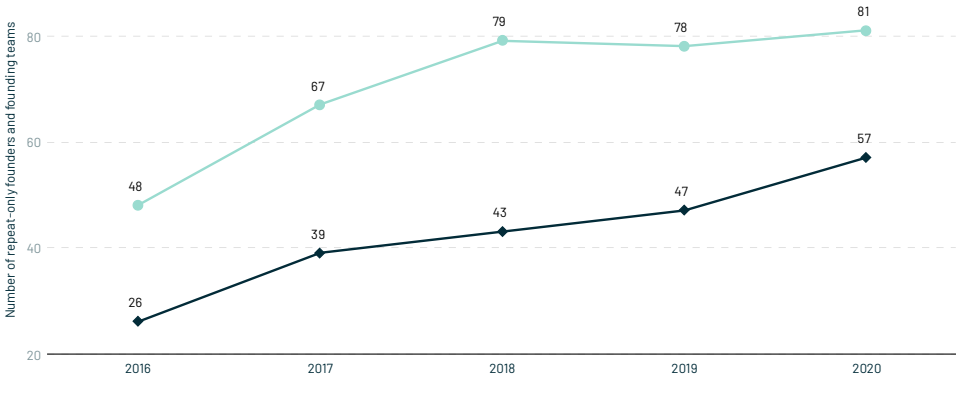
Number of repeat founders by capital raised and by year

LEGEND

- Raised $5m+
- Raised $10m+

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, grants. Please also note the data excludes Israel. 2020 data based on data up to September 2020.



SOURCE: dealroom.co

Selected European startups founded by repeat founders or ex-operators

The strength of the new generation of European founders is also playing a role in changing the dynamics of the investor landscape. There are a growing number of examples of talented founding teams that have raised from leading investors at very early stages of development, certainly pre-revenue and often pre-product and with just a very small initial team.

Johanna Gallo and Cyril Pierre, Founders of Aplanet
ex-Stubhub, Ontruck

Christian Eggert, Founder of Back
ex-Rocket EIR, MiNODES, Bonativo

Adrien Roose and Karim Slaoui, Founders of Cowboy
ex-Take Eat Easy

Thomas Dullien, Founder of Optimyze
ex-Google

Andrus Purde, Founder of Outfunnel
ex-Pipedrive, Skype

Eleanor Crespo and Romain Niccoli, Founders of Pigment
ex-Google, Criteo

Tariq Rauf, Founder of Qatalog
ex-Transferwise

Nimrod Priell and Jackson Gabbard, Founders of Radical
ex-Facebook

Petr Nikolaev and Thomas Paul Mann, Founders of Raycast
ex-Facebook, WhatsApp

Alexis Fogel and Krzysztof Dąbrowski, Founders of Stonly
ex-Dashlane

Pierre Burgy, Founder of Strapi
ex-Checkout.com

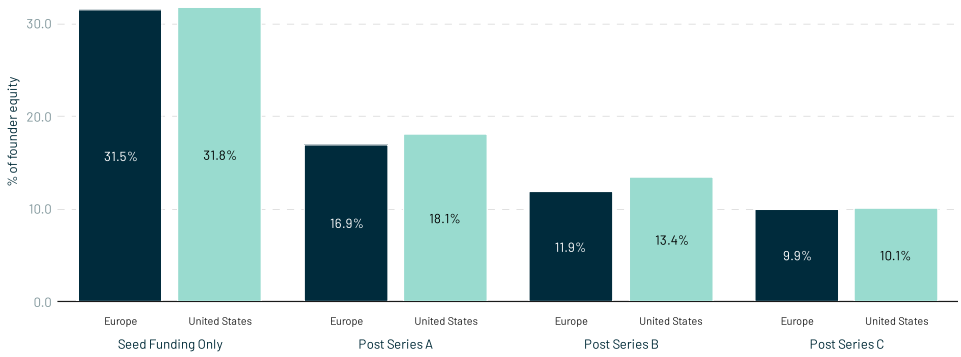
Mart Abramov, Founder of TaxScouts
ex-Transferwise, Microsoft, Skype

An important aspect of the flywheel that powers tech ecosystems is the ability for success stories to generate economic value for founders (and employees) that can - and often is - reinvested back into the ecosystem via means such as angel investment activity, as highlighted in the 'Angels' article. A prerequisite is founder equity and so it's interesting to monitor how this evolves as companies progress through multiple funding rounds. As a point of comparison, it is noteworthy that the level of founder equity is closely aligned on average between the US and Europe at each stage of funding.

Founder equity by funding round in the 50th percentile by region

LEGEND

- Europe
- United States



SOURCE: optionimpact

Relatedly, it's also interesting to observe the average level of founder compensation and how this varies between Europe and the US. Founders in the US have materially higher base salaries and higher incentive pay at various stages of the startup journey.

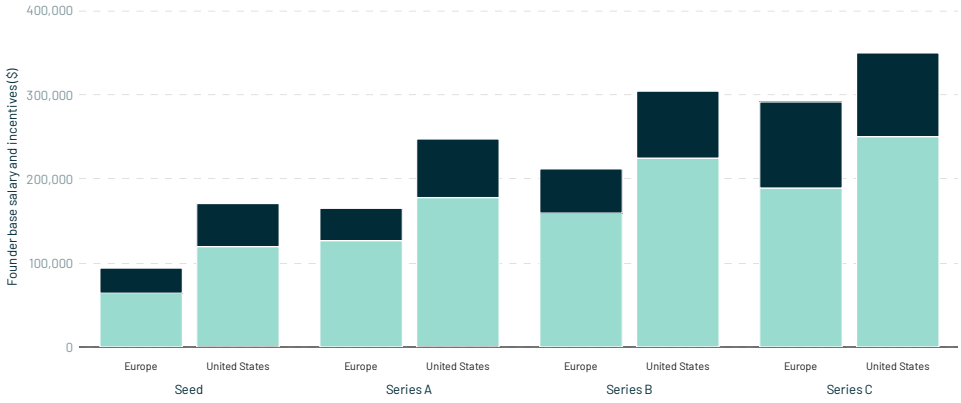
Founder base salary ($) by funding round in the 50th percentile by region

LEGEND

- Base Salary
- Incentive Pay

NOTE:

Note that at Seed stage some Founders may not take a base salary and take incentive pay instead. Incentive pay is cash bonus or incentive, which is not related to equity or equity value. Converted EUR to USD with FX rate of 1.1867 (27 November 2020).



SOURCE: optionimpact

05.3
Talent Trends

Impact of Covid-19 on the European tech job market

Data partner, Indeed, provides interesting insights into tech job trends on a country-by-country basis across Europe. The data explores changes in the relative level of tech job openings, the relative ease or difficulty of filling those roles, and changes in the search volume by potential candidates for tech jobs.

The data highlights that the impact of Covid-19 has varied significantly across the region. In certain countries, the impact of Covid-19 led to a contraction in the relative supply of tech jobs and large spikes in search volumes for new jobs, helping to ease the challenge of filling vacant roles for companies that kept roles open and could tap into pools of demand. In other countries, notably in Southern Europe, there are opposing trends visible in the data.

- Indeed tracks the number of month-by-month open tech job postings relative to total job postings in a country, which serves a useful proxy for changes in tech hiring patterns. In other words, are tech jobs growing or shrinking faster relative to others? It is, therefore, also an interesting lens to use to explore the impact of Covid-19. What is noticeable across the board is volatility with wild swings up and down in the months since March 2020. In some markets, such as Portugal and Ireland, the number of tech job postings spiked massively relative to non-tech jobs, presumably as job postings in other sectors disappeared from the market due to more aggressive hiring freezes outside of tech positions. In others, such as Sweden, Denmark and, notably, the US, tech positions declined in volume relative to the broader job market.

Share of 'tech' job postings as % of total job postings by country in the last 12 months

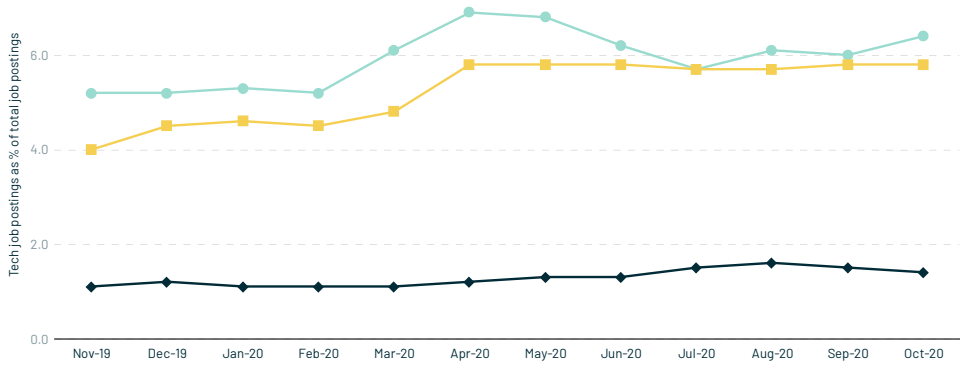
LEGEND
- Spain
- Belgium
- Portugal

LEGEND
- France
- Netherlands
- Italy
- UK
- Ireland

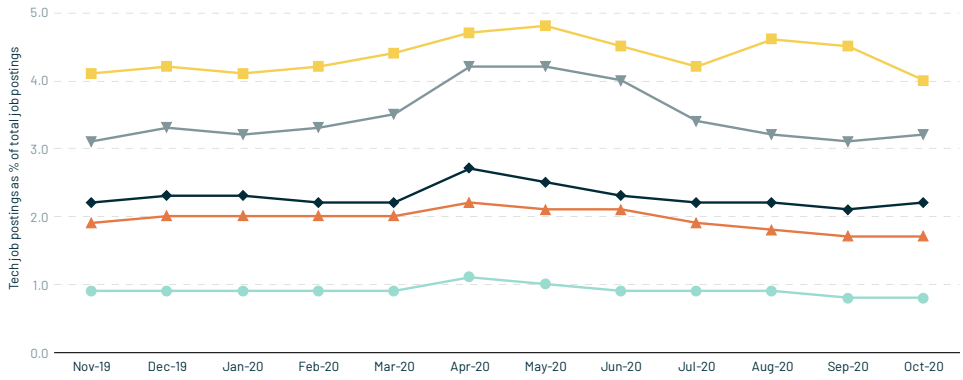
NOTE:

Note that at Seed stage some Founders may not take a base salary and take incentive pay instead. Incentive pay is cash bonus or incentive, which is not related to equity or equity value. Converted EUR to USD with FX rate of 1.1867 (27 November 2020).

Sustained increase in tech job share



Volatility in tech job share



SOURCE: indeed

Also of note are the variances across countries in how the relative share of job postings evolved through the summer and into the second half of 2020. While tech postings remained at elevated levels in some, in others the relative share of tech jobs started to decline, presumably as more non-tech jobs started to come back to market.

Share of 'tech' job postings as % of total job postings by country in the last 12 months

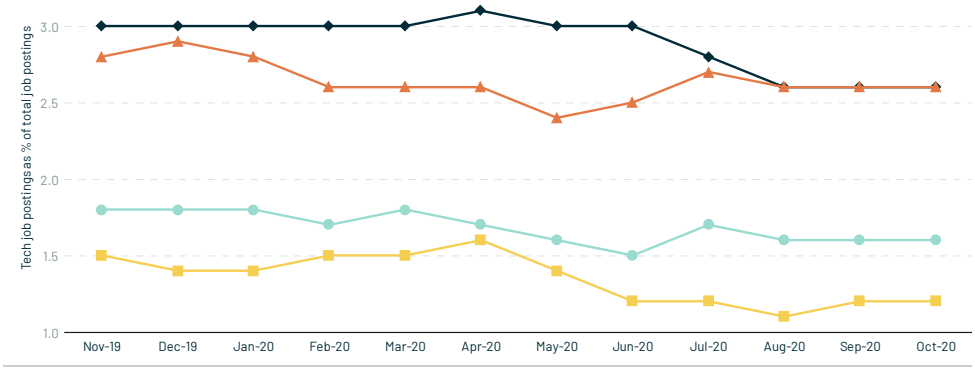
LEGEND

- Denmark
- Germany
- United States
- Sweden

NOTE:

Note that at Seed stage some Founders may not take a base salary and take incentive pay instead. Incentive pay is cash bonus or incentive, which is not related to equity or equity value. Converted EUR to USD with FX rate of 1.1867 (27 November 2020).

Sustained decrease in tech job share



SOURCE: indeed

State of European Tech 2020 report launch

Indeed's data also enables an interesting insight into the relative importance of tech as a share of total job postings across countries. While not shedding light on the absolute volume of tech job postings, it's useful to pinpoint countries where tech's role as a driver of the job market has elevated importance. This is most notable in Spain and Portugal, where the relative share of tech jobs is far higher than other European countries. It's also interesting to observe how the impact of the pandemic has only served to underline this even more, given material share gains for tech jobs relative to the overall local job markets. In that context, it's interesting to note how Portugal is succeeding in attracting global tech companies, such as Cloudflare, to open local offices. Cloudflare' s reasons for doing so included an attractive immigration policy, high standard of living, as well as logistical factors such as time zone and direct flights to San Francisco' as key factors in their decision. This is the bar that other tech companies will expect if they are to be tempted to relocate.

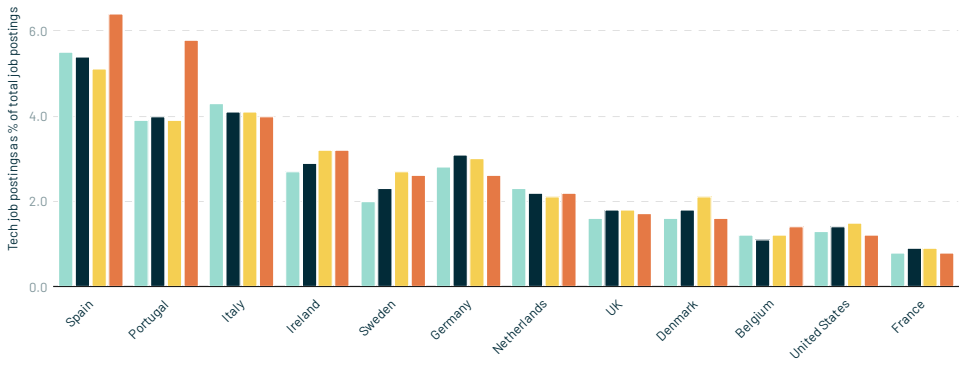
Tech job postings per 1M job postings by country and by year

LEGEND

- Oct 2017
- Oct 2018
- Oct 2019
- Oct 2020

NOTE:

'Tech jobs' included in the search for example: software engineer, programmer, application developer, UI/UX/graphic designer, web developer, frontend developer, backend developer, data scientist, business intelligence, IT support.



SOURCE: indeed

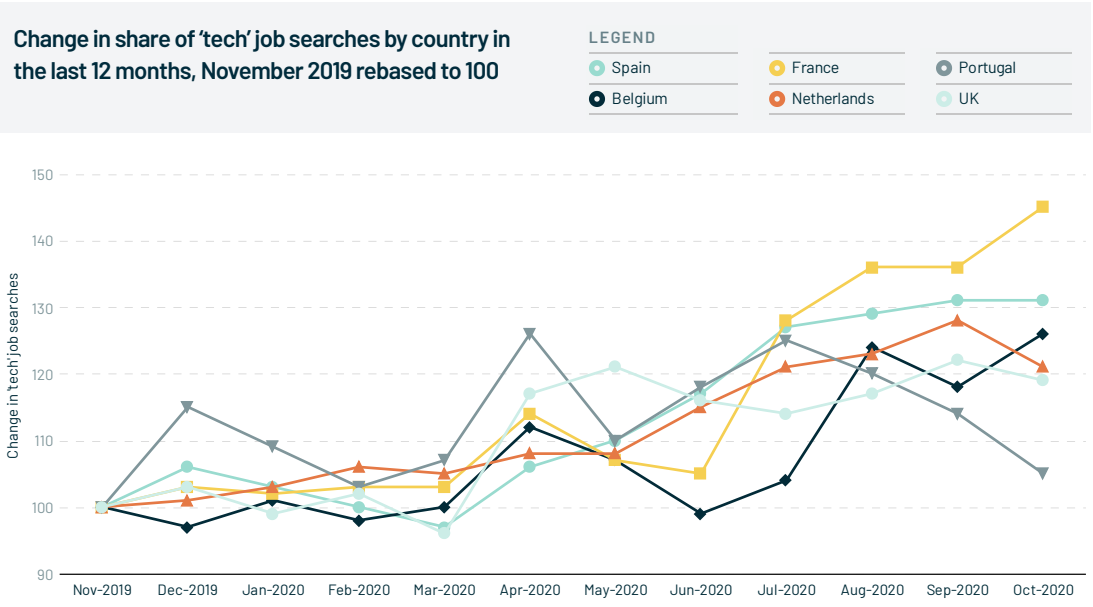
Cristina Fonseca
Indico Capital Partners
Partner

Portugal has all the ingredients needed to create tech companies - besides being a country where people want to live, we have very good technical talent and universities. The limiting factor used to be capital and that changed in the last years.

The success of Talkdesk, Farfetch, Outsystems has inspired more people to create companies, captured the attention of investors that started paying attention to the local ecosystem and helped move the local investment landscape forward. We now have professional investors and independent VC funds like Indico, combining expertise and capital to help these companies scale.

Indeed's data can be used to perform an analysis of how demand for tech jobs has evolved during 2020 relative to changes in demand amongst overall jobseekers. In other words, are there more or fewer searches for tech jobs conducted as a relative share of overall job searches carried out by jobseekers? For ease of comparison, the data is rebased to November 2019 to allow for a simple analysis across a 12 month timeframe and to see the relative increases in demand. The trends surfaced in the data are not uniform across all countries, but there are clear patterns that are replicated across a large number of European markets that provide a clear indication of how demand for tech jobs boomed from March 2020 onwards. This increase in the relative share could well be driven by increased demand from newly-available talent, but most likely reflects an increased interest in tech due to its perceived position as a Covid-19 beneficiary or a relative safe haven within a challenging job market. Interestingly, Portugal is one of few markets where the local demand for tech jobs has not skyrocketed.

Change in share of 'tech' job searches by country in the last 12 months, November 2019 rebased to 100



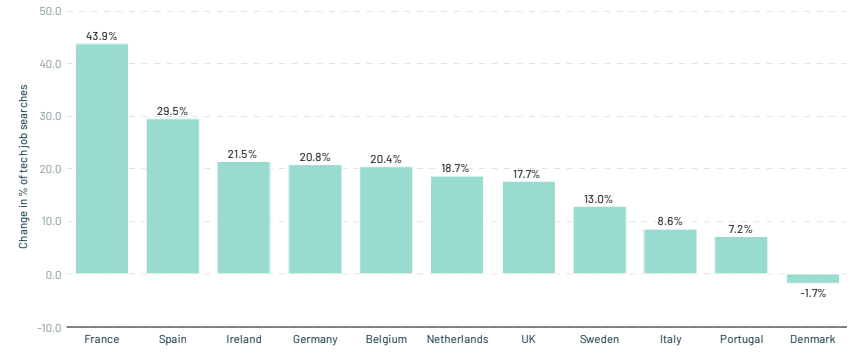
NOTE:
Examples of 'tech jobs' included in the search: software engineer, programmer, application developer, UI/UX/graphic designer, web developer, frontend developer, backend developer, data scientist, business intelligence, IT support.

SOURCE: indeed

SCAN TO UNLOCK ADDITIONAL DATA

The growth in overall demand for tech jobs is perhaps more visibly noticeable by isolating the year-on-year change in relative search volume for tech jobs across different countries. This highlights how demand from jobseekers in France and Spain has boomed in the past 12 months, relative to demand for all other non-tech jobs. It also, again, highlights how demand in Portugal has been more muted.

Change in share of tech jobs searches per million by country, October 2019 to October 2020



NOTE:

This data measures the relative number of searches per country for tech related job postings as a share of every million searches on the local Indeed site for each country. 'Tech jobs' include: software engineer, programmer, application developer, etc.

SOURCE: indeed

Whilst we have offices in London, Barcelona and Munich, we have seen the most significant transformation occur within the Spanish startup ecosystem in the last couple of years driven by few notable developments. First, the Spanish market has seen an increase in companies maturing with large exits and IPOs, signalling to European investors to look more closely at Spanish opportunities with great potential. Additionally, there is a larger amount of capital available locally - more than ever before - which enables companies to raise Seed and Series A locally first, therefore, making it more appealing and less risky for international investors who feel more comfortable participating at Series B and beyond.

Jordi Vinas
Nauta Capital
General Partner

What's more, there is a stronger pool of founder talent, top management and staff stemming from three waves of Spanish entrepreneurship in the past two decades. Each of these waves have strengthened the ecosystem and nurtured startups by supplying invaluable talent.

Successful Spanish enterprises have also inspired a new generation of founders with great international track record to return to the region, bringing knowledge, expertise, language skills and the ambition to succeed internationally. Indeed, all these factors have led to the increased interest from international VCs.

To complete the dive into the impact of the pandemic in changing supply and demand dynamics for tech jobs, Indeed's data also provides an interesting proxy for the relative supply-demand balance across countries by measuring the the share of tech jobs that are classified as hard to fill as a percentage of total tech jobs. Hard to fill is defined as a job that has remained advertised on the Indeed site(s) for more than sixty days. Portugal sees the highest share of tech jobs that are classified as hard to fill, according to Indeed, followed by the Netherlands and Belgium. On the other end of the spectrum, employers posting tech jobs in Denmark, the UK and Ireland are least likely to find their position hard to fill.

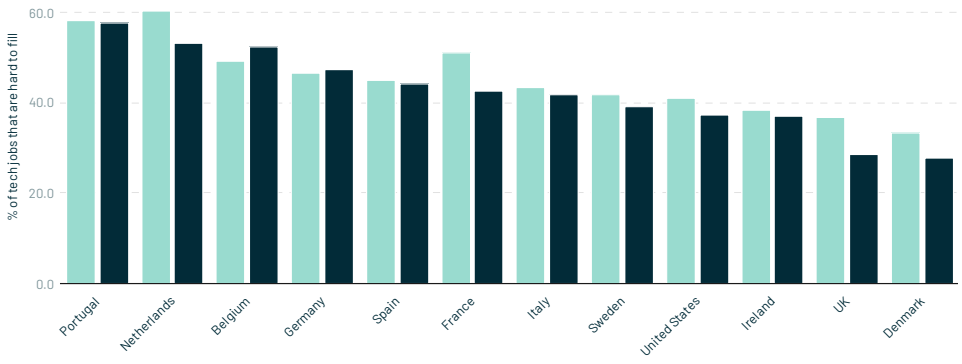
Share of tech jobs (%) that are hard to fill by country per year

LEGEND

- Oct 2019
- Oct 2020

NOTE:

Examples of 'tech jobs' included in the search: software engineer, application developer, UI/UX/graphic designer, web developer, data scientist. Hard to fill is defined as % of 'software engineer' job postings on the Indeed site(s) for more than 60 days.



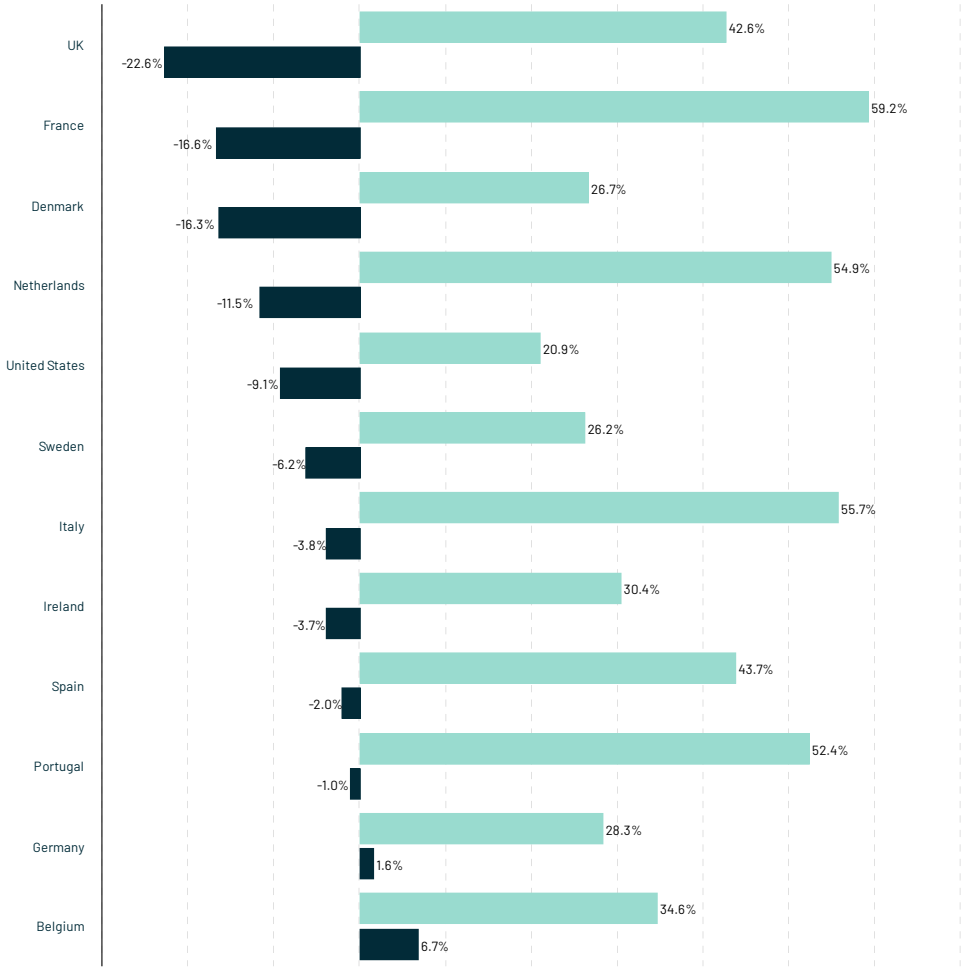
SOURCE: indeed

Before Covid-19, European employers seeking to fill tech jobs had found it increasingly difficult with growing numbers of open positions classifed by Indeed as hard to fill, in other words that they remained open for longer than six months. In the UK, for example, there had been a 43% increase in the share of tech job vacancies classified as hard to fill between October 2018 and October 2019. For the year to October 2020, however, this trend has been completely reversed, resulting in a 23% decline in the share of tech jobs classified as hard to fill. Similar patterns are repeated in other countries, such as France and the Netherlands. Interestingly, the reversal has much much less apparent in certain markets, such as Portugal, Germany and Belgium, which indicate that it remains challenging to find the demand to fill the supply of available tech jobs.

Change in share (%) of software engineer job postings that are hard to fill, 2018-2019 versus 2019-2020

LEGEND

- Oct 2018 to Oct 2019
- Oct 2019 to Oct 2020



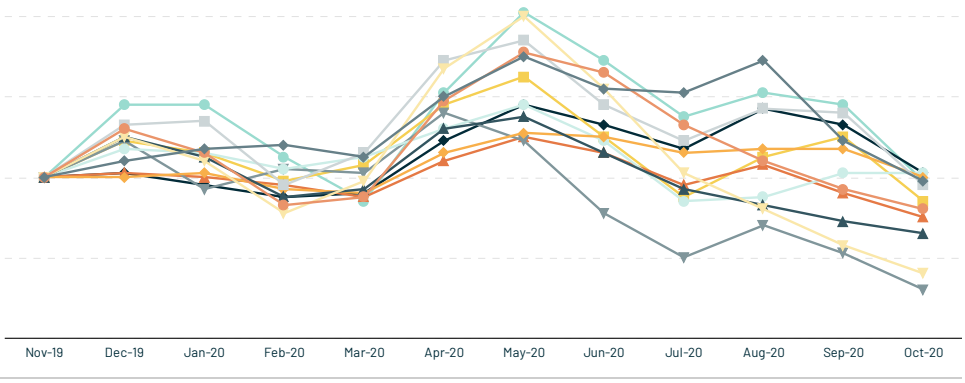
NOTE:

%-point change in % of software engineer jobs that are hard to fill in Oct 2018 versus Oct 2019 and Oct 2019 versus Oct 2020 by country. Hard to fill is defined as % of 'software engineer' job postings on the Indeed site(s) for more than 60 days.

SOURCE: indeed

It's interesting to note that while most countries are ending the year with a declining trend in the share of tech jobs that are 'hard to fill', this only followed a further spike in the months of April and May that actually initially exacerbated the trend of recent years. 'Hard to fill' is defined as the share of software engineer job postings that have been on the Indeed site for more than 60 days.

Share of tech jobs that are hard to fill by country over last 12 months, rebased to 100

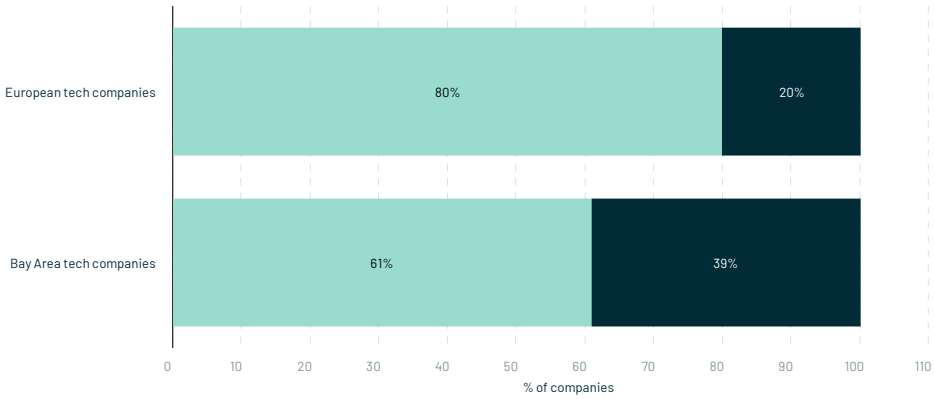


SOURCE: indeed

Building locally with an international mindset

Europe's billion-dollar companies are more likely to have internationalised by setting up office locations outside of their home market than their counterparts from the US. This is driven, for the most part, by a desire to increase the size of their addressable market by tapping into one of the world's most important and largest markets for consumer and enterprise spending.

Share of leading VC-backed European and Bay Area tech companies (%) with an international office footprint



NOTE:

Based on a sample of VC-backed 132 European tech companies and 265 Bay Area tech companies that and have reached $B+ milestone, excluding Biotech. Based on data up to 30 September 2020.

SOURCE: Craft dealroom.co

Though there is likely a recency bias to consider given the fact that companies will typically only internationalise their office footprint after reaching a certain point in their journey, it's interesting to observe a notable downward trend in terms of the share of younger companies that have internationalised. One possible consideration is that more recent cohorts of companies are now scaling to billion-dollar valuations within their home markets simply because of the scale of the market opportunities that can be tapped as tech increasingly moves into gigantic industries, such as finance or health, that have the scale to enable companies to grow to huge outcomes without the need to internationalise.

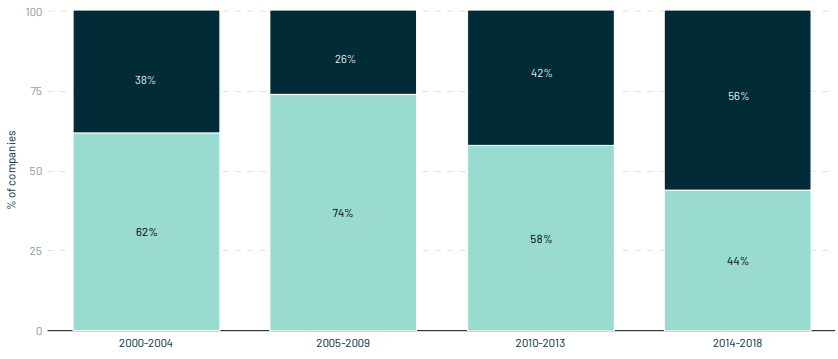
Share of European, VC backed $B+ companies that have expanded to the US by founding year

LEGEND

- Expanded to the United States
- Did not expand to the United States

NOTE:

Based on a sample of 132 European tech companies that have reached $B+ milestone, excluding Biotech and Pharma. Based on data up to 30 September 2020.

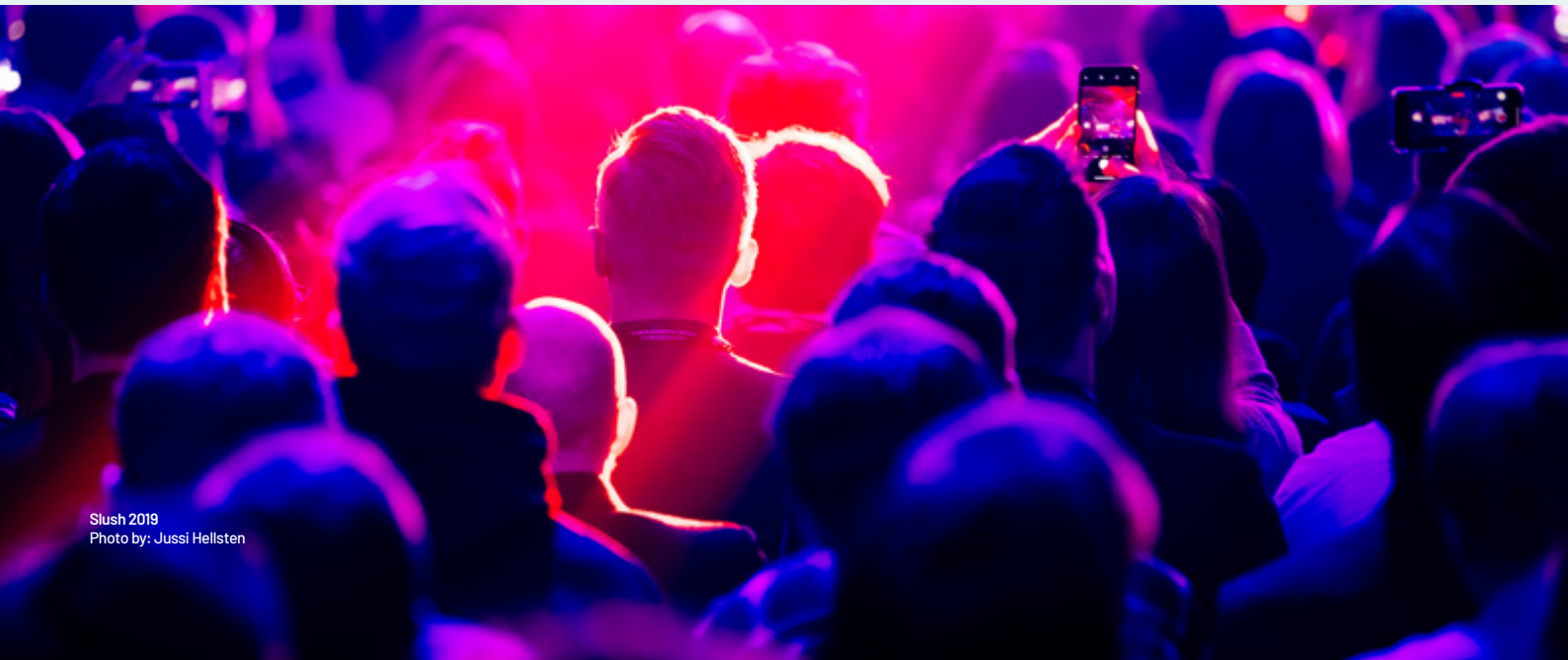


SOURCE: Craft dealroom.co atomico

The pandemic has offered us a great opportunity to be more inclusive than ever, due to the remote work culture that it reinforces. We all could see and leverage the potential of multi cultural teams across the globe going forward.

Cordula Pfluegl
Future Females
Europe Director

The pandemic has offered us a great opportunity to be more inclusive than ever, due to the remote work culture that it reinforces. We all could see and leverage the potential of multi cultural teams across the globe going forward. Our team at Future Females is distributed over 3 countries and 2 continents and we have always seen that as a big advantage. Now this is possible for many more companies and teams. So far I have not seen a lot of change but 2021 will be a completely new year in terms of structuring. We are hoping to see a positive trend of women starting businesses (partly due to COVID implications) and hence changing the landscape of business owners to a more diverse one.



Slush 2019
Photo by: Jussi Hellsten

- Though caveated with an element of recency bias, it's also interesting to observe how younger cohorts of VC-backed $1B+ companies from the Bay Area are less likely to have expanded their office footprint into Europe versus those founded in earlier years.

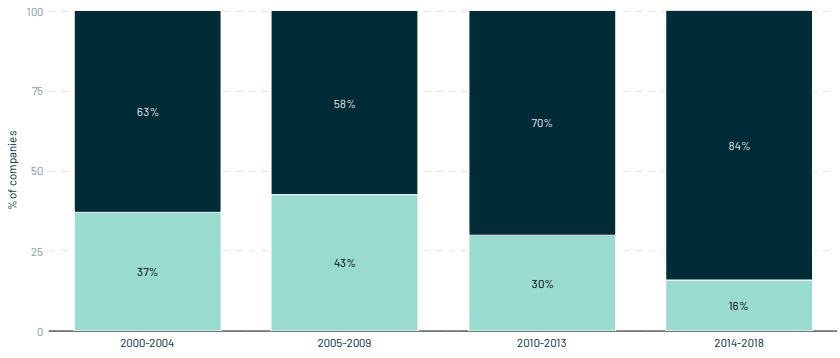
Share of Bay Area, VC-backed $B+ companies that have expanded to Europe by founding year

LEGEND

- Expanded to Europe
- Did not expand to Europe

NOTE:

Based on a sample of 265 US tech companies that have reached $B+ milestone, excluding Biotech and Pharma. Based on data up to 30 September 2020.



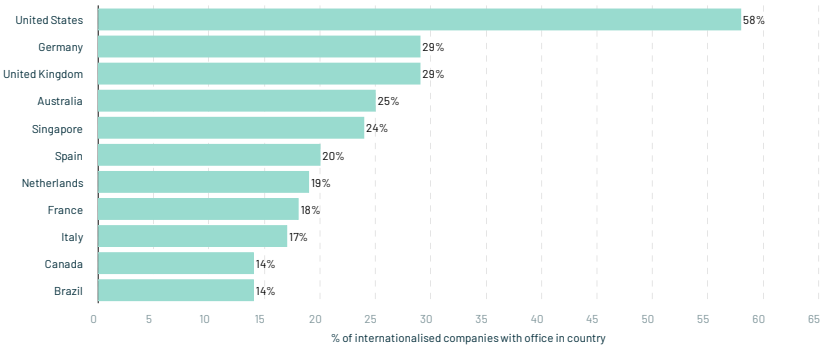
SOURCE: Craft

- The top 10 most popular countries for international office locations of European tech scale-ups is dominated by other European countries, most frequently Germany and the UK. Although companies have been slower to expand to the US, the large market opportunity presented by the US still means that it ranks by far number 1 amongst most popular location for international offices for European tech scale-ups. Other interesting locations such as Singapore and Australia are high on the list compared to other European markets that are closer geographically. It is also worth pointing out Spain ranking above France and the Netherlands.

Top 10 most popular countries for international office locations of European tech scale-ups that have internationalised their office footprint

NOTE:

Based on a sample of 132 European tech companies that have reached $B+ milestone, excluding Biotech and Pharma. Based on data up to 30 September 2020.



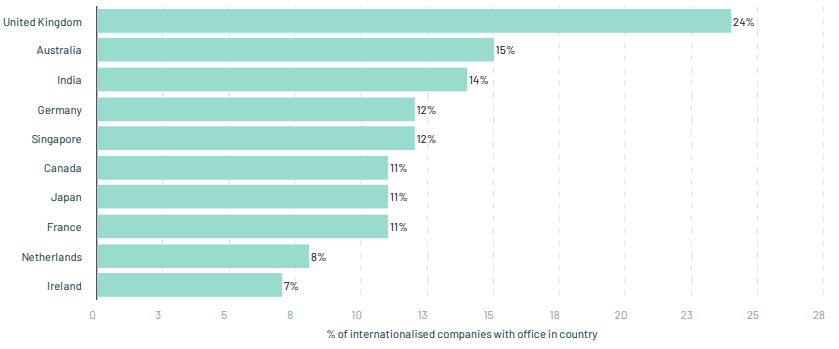
SOURCE: Craft dealroom.co

- Meanwhile, English speaking countries take precedence for Bay Area scale-ups as well as India.

Top 10 most popular countries for international office locations of Bay Area tech scale-ups that have internationalised their office footprint

NOTE:

Based on a sample of 265 US tech companies that have reached $B+ milestone, excluding Biotech and Pharma. Based on data up to 30 September 2020.



SOURCE: Craft dealroom.co

Europe: a powerhouse for technical talent

- Europe is home to 10 of the world's highest rank universities for computer science globally, including four of the top 10.

European universities among global top 50 in computer science and their global rank

	University	Country
1	University of Oxford	United Kingdom
4	ETH Zurich	Switzerland
6	University of Cambridge	United Kingdom
10	Imperial College London	United Kingdom
14	Technical University of Munich	Germany
16	École Polytechnique Fédérale de Lausanne	Switzerland
18	UCL	United Kingdom
22	University of Edinburgh	United Kingdom
45	Paris Sciences et Lettres - PSL Research University Paris	France
50	KU Leuven	Belgium

NOTE:

Rank refers to position in global list of top 100 institutions for engineering and technology qualifications. Compiled by the Times Higher Education Supplement and includes 827 universities across the world.

SOURCE: THE WORLD UNIVERSITY RANKINGS

- The gender composition of Europe's leading engineering universities provides a validation that there is a strong pipeline of engineering talent that are women in excess of current employment level benchmarks in European tech.

Share of female students and rank of select European universities among global top 100 in engineering

	University	Country	Share of women (%)
2	University of Oxford	United Kingdom	46
6	University of Cambridge	United Kingdom	47
9	ETH Zurich	Switzerland	32
14	Imperial College London	United Kingdom	39
20	École Polytechnique Fédérale de Lausanne	Switzerland	29
21	Delft University of Technology	Netherlands	30
24	Technical University of Munich	Germany	36
30	RWTH Aachen University	Germany	32
42	UCL	United Kingdom	57
46	University of Manchester	United Kingdom	53
53	KU Leuven	Belgium	50
63	Technical University of Berlin	Germany	34
68	Eindhoven University of Technology	Netherlands	n/a
69	Chalmers University of Technology	Sweden	32
70	KTH Royal Institute of Technology	Sweden	33
78	Technical University of Denmark	Denmark	31
86	Karlsruhe Institute of Technology	Germany	28
93	University of Edinburgh	United Kingdom	60
94	Paris Sciences et Lettres - PSL Research University Paris	France	46
97	TU Dresden	Germany	43
98	Wageningen University & Research	Netherlands	54

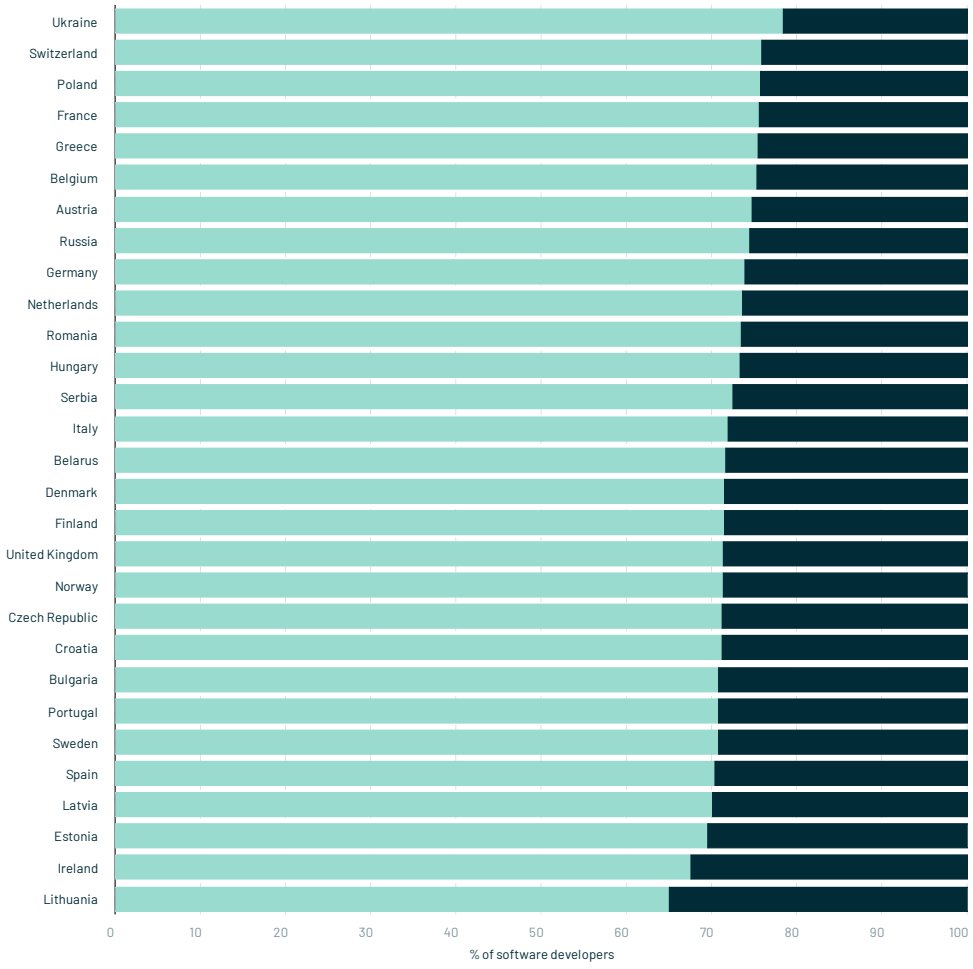
NOTE:

Rank refers to position in global list of top 100 institutions for engineering and technology qualifications. Includes 1,098 universities across the world. Share of females refers to share of female students attending the university.

SOURCE: THE WORLD UNIVERSITY RANKINGS

It's important to benchmark the gender composition of the European tech workforce. TalentUp, which has reviewed a sample of over 2 million unique European tech workers, provides such benchmarks across a range of different technical positions, enabling better insights into the distribution of the European technical talent pool by gender and role profile. Looking at the gender composition of software developers in Europe on a country-by-country basis, a number of countries stand out including three from the Nordics region who rank across the top 5 countries with the highest share of women software developers. On average, there are 3 women software developers for every 10 in Europe.

Share of software developers by gender in Europe



NOTE:

Based on a sample of over 2M unique tech workers in Europe. Only countries with over 8,000 software developers included.

SOURCE: talentUp.io

As a woman aware of diversity issues and committed to promote it, I also regret having difficulty recruiting women into the team!

Alexia Rey
NeoFarm
Founde

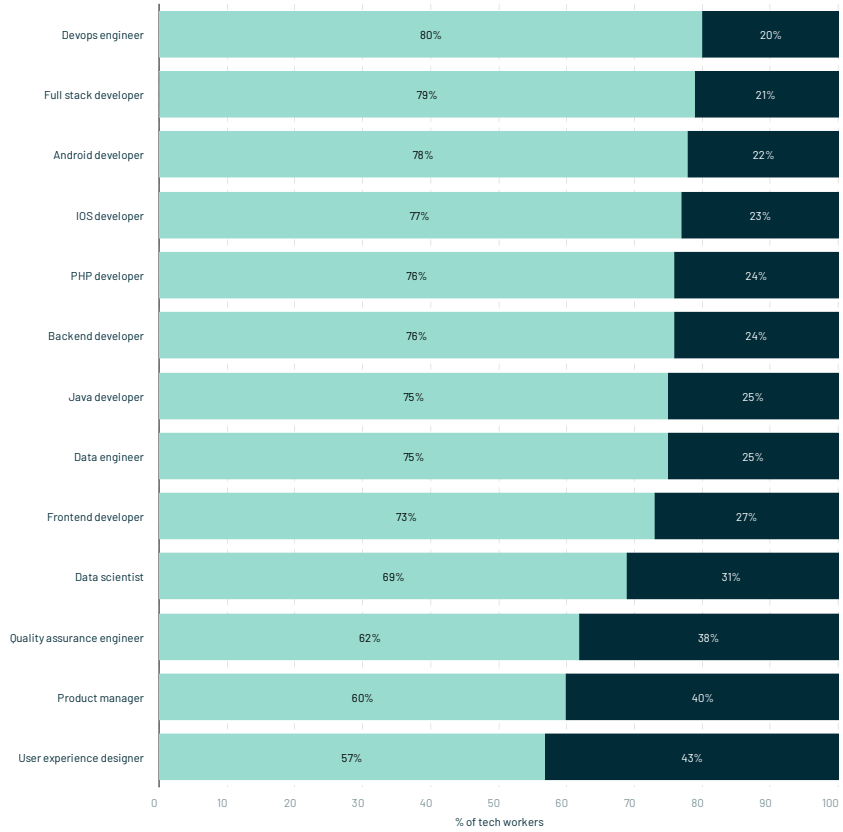
I feel very lucky because everyone on the team is driven by this same desire to improve the way we produce food. We all have different backgrounds but each one of us wants to improve the society in our own way. It's very motivating for the people who want to join our team. On the other hand, the agricultural sector and the R&D skills required at our stage of development are very specific (agronomy, robotics, mechatronics, etc.). Sometimes it takes a little time to find the perfect match, both interested in our mission, qualified and autonomous. As a woman aware of diversity issues and committed to promote it, I also regret having difficulty recruiting women into the team!

Diving deeper into the gender composition across technical positions, there are clear differences where women are more equally represented than their men counterpart. The share of UX designers is almost split between men and women, but there's still much work to be done to close the gap across all categories.

Gender composition by tech position

LEGEND

- Men
- Women



NOTE:

Based on a sample size of over 400k unique tech workers in Europe.

SOURCE: talentUp.io

10 European universities made it to the top 50 engineering ranking. They are spread across the UK, Germany, Switzerland, and the Netherlands. The share of international students across these institutions remains above 30%, with École Polytechnique Fédérale de Lausanne ranking highest with three in every five students being international. The ability for universities to attract and retain talent is key to strengthen the depth of the tech ecosystem in Europe.

Europe's universities among global top 50 in engineer and share of international students

NOTE:

Rank refers to position in global list of top 100 institutions for engineering qualifications (general, electrical and electronic, mechanical and aerospace, civil and chemical engineering). Includes 1,098 universities across the world.

	University	Country	% international students
2	University of Oxford	United Kingdom	41
6	University of Cambridge	United Kingdom	38
9	ETH Zurich	Switzerland	40
14	Imperial College London	United Kingdom	58
20	École Polytechnique Fédérale de Lausanne	Switzerland	60
21	Delft University of Technology	Netherlands	31
24	Technical University of Munich	Germany	31
30	RWTH Aachen University	Germany	23
42	UCL	United Kingdom	55
46	University of Manchester	United Kingdom	41

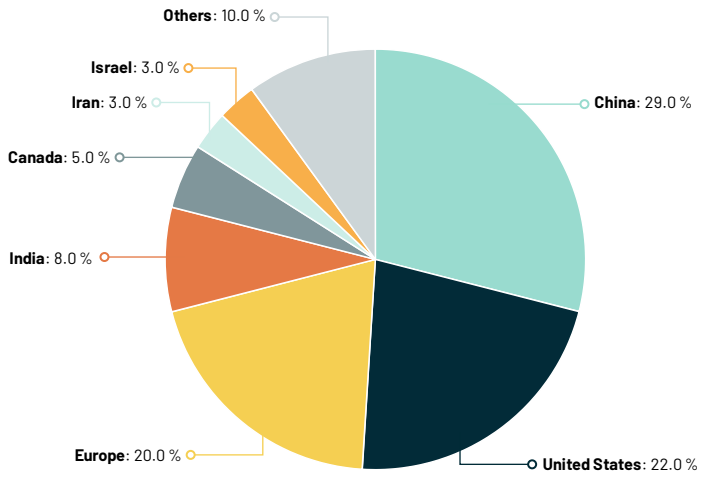
SOURCE: THE WORLD UNIVERSITY RANKINGS

The strength of the European talent pipeline and the role that its globally competitive education system plays in feeding it is captured by an interesting analysis, conducted by Marco Polo, and highlighted in The State of AI Report that shows that 22% of top-tier AI researchers completed their undergraduate degree in Europe, a number that is second only to China.

Where do top-tier AI researchers come from?

NOTE:

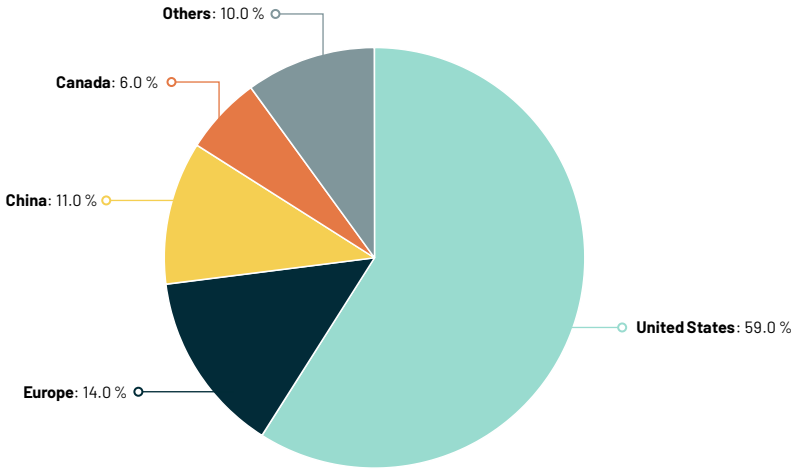
Country affiliations are based on the country where the researcher received their undergraduate degree.



SOURCE: MACRO POLO Decoding China's Economic Arrival

Europe, however, has a leakage issue when it comes to top-tier talent. While 22% of the world's leading AI researchers studied in Europe, just 14% of them now work in the region. This equates to a leakage equivalent to a third of the relevant talent pool. The biggest beneficiary of this is the US. While only 20% of top-tier AI researchers gained their undergraduate degrees in the US, 59% of them now work in the US thanks to the strength of the US tech ecosystem in absorbing world-class talent.

Where do top-tier AI researchers work today?



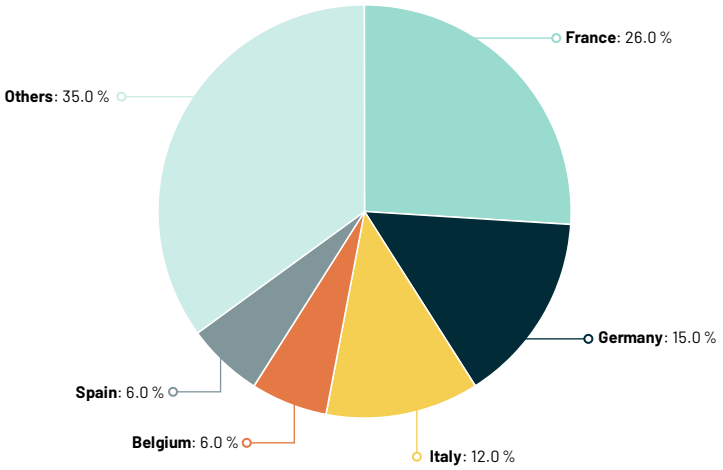
NOTE:

Country affiliations are based on the headquarters of institutions in which the researchers currently work.

SOURCE: MACRO POLO Decoding China's Economic Arrival

Drilling down into the European talent pool to the country level (though analysis notably has excluded the UK), France is the biggest source of top-tier European AI research talent based on where they received their undergraduate degree with 26%, followed by Germany (15%) and Italy (12%). Interestingly, Belgium makes it into fourth place with 6% of top-tier European AI talent graduating from the country despite its smaller relative size.

Where do top-tier European AI researchers come from?



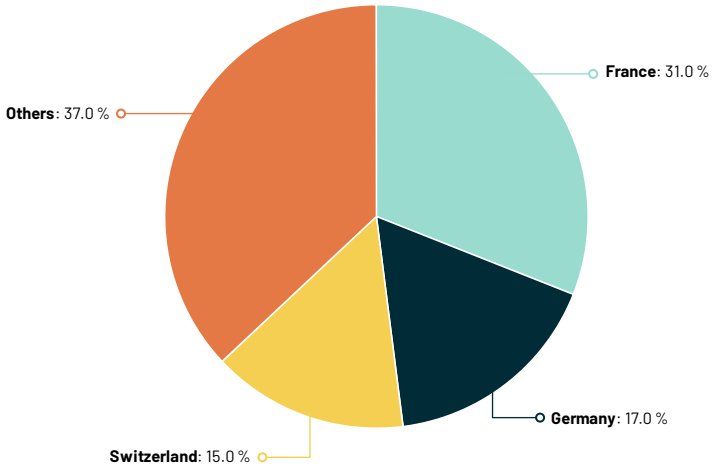
NOTE:

Country affiliations are based on where the researchers received their undergraduate degree within Europe. The UK is not included in Europe.

SOURCE: MACRO POLO Decoding China's Economic Arrival

France also ranks highest both in terms of where top-tier AI researchers in Europe work today with 31% of all top tier AI researchers based in Europe working from France, followed by Germany with 17% and Switzerland with 15%.

Where do top-tier AI researchers in Europe work today?

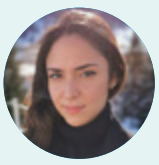


NOTE:

Country affiliations are based on the geographic location of the researchers within Europe, not their institution's headquarters. The UK is not included in Europe.

SOURCE: MACRO POLO Decoding China's Economic Arrival

Although Europe as a bloc has what it takes in terms of a robust expertise of some of the best scientific researchers in the world and a vibrant startup ecosystem, the continent is still lagging behind China and the US in its AI advancements. This is largely because the talent and resources are scattered across the various European countries.



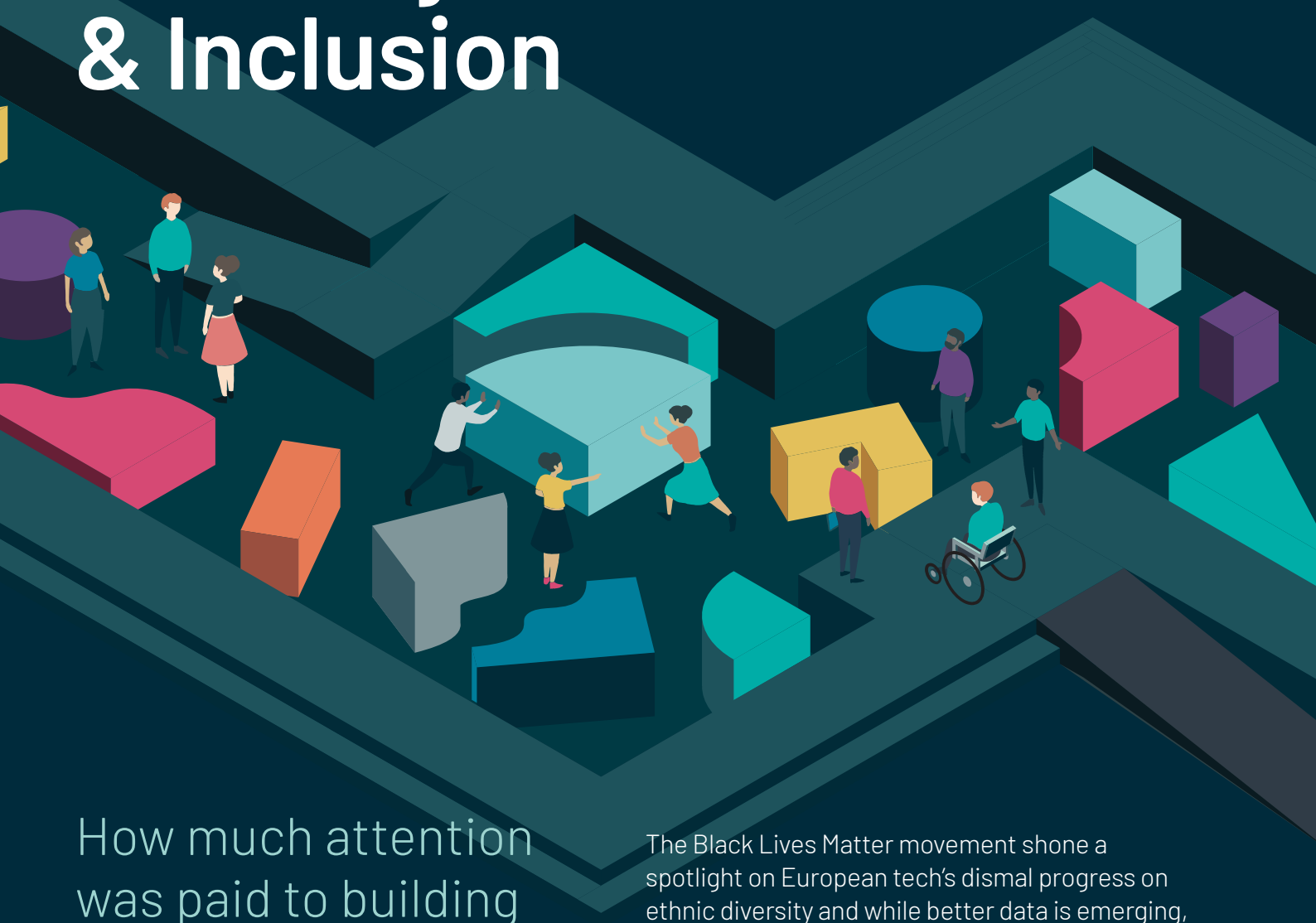
Moojan Asghari
Women in AI
Co-Founder

At this point, there is no denying the fact that Artificial Intelligence will continue to be a dominant force in how global competitiveness and productivity shapes out. Although Europe as a bloc has what it takes in terms of a robust expertise of some of the best scientific researchers in the world and a vibrant startup ecosystem, the continent is still lagging behind China and the US in its AI advancements. This is largely because the talent and resources are scattered across the various European countries. Thankfully, many European leaders are raising their ambitions to make the region more AI competitive. Creating ethical or 'trustworthy AI" is a major objective here and I believe this is one area in which Europe will have an advantage over the others because it already has an effective regulatory system.

Being someone who works with start-ups, I can say that entrepreneurs in the tech industry especially those who incorporate AI technologies in their operations are well supported, even though there still exist some disparities along gender lines in who gets funding. But generally, Europe is poised to give China and the US a run for their money when it comes to AI and the startup ecosystem will be a significant contributor to the realization of that goal.

06

Diversity & Inclusion



How much attention was paid to building a more diverse and inclusive tech ecosystem?

The Black Lives Matter movement shone a spotlight on European tech's dismal progress on ethnic diversity and while better data is emerging, more is needed at the pan-European level. While many founders found it tough to get funding this year, this is especially true for underrepresented founders. Progress on gender diversity has stalled, while discrimination remains a systemic problem. Covid-19 put the brakes on much needed change, and more action is needed if Europe is to stop squandering talent and value.

06.1

State of Diversity & Inclusion

The Ethnicity Data Gap

Since 2018, The State of European Tech report has plotted tech's dismal track record on diversity and inclusion because we believe that European tech will only be able to reach its true potential if diversity and inclusion are at its core.

This is a complex topic; diversity is not just about gender, it is also about age, nationality, sexual orientation, socioeconomic backgrounds, neurodiversity and ethnicity. In particular, the Black Lives Matter movement this year gave cause for long-overdue reflection on the systematic exclusion of talent from Black/African/Caribbean, Asian, Hispanic/Latinx, Middle Eastern/North African, and mixed ethnic backgrounds from European tech.

We believe that data is key to progress, and a number of outstanding reports mapped Europe's diversity deficit this year. Those include The Black Report from 10x10, Extend Ventures' Diversity Beyond Gender Report, and Unconventional Ventures' Nordic Start-up Funding report.

But very little data exists at a European level. Dealroom started an initiative in September to collect ethnicity data through self-identification.

So far, close to 300 people have taken part and for those who reported their ethnicity, 11% identified as Asian, 4% as Black/African/Caribbean, 4% as Mixed, 3% as Middle Eastern/North African and 2% as Hispanic/Latinx. This data will slowly allow us to build an accurate picture of the diversity of those who make up the tech industry. With enough representative data, we hope to be able to conduct research on capital flows based on both ethnicity and gender, in different territories, sub-sectors and funding stages. For this, we need help. Claim your Dealroom profile and update your details, to help build the most comprehensive living dataset on ethnicity and gender in the tech industry.

We are always looking for partners on diversity data, and welcome inbound at research@atomico.com. With data, we can help change the status quo together!

Looking at the composition of the founder respondents to the State of European Tech survey based on self-reported ethnicity, 83% of all founders identified as White/Caucasian. Only 2% of all founder respondents self-identified as Black/African/Caribbean, and none of those respondents raised external capital.

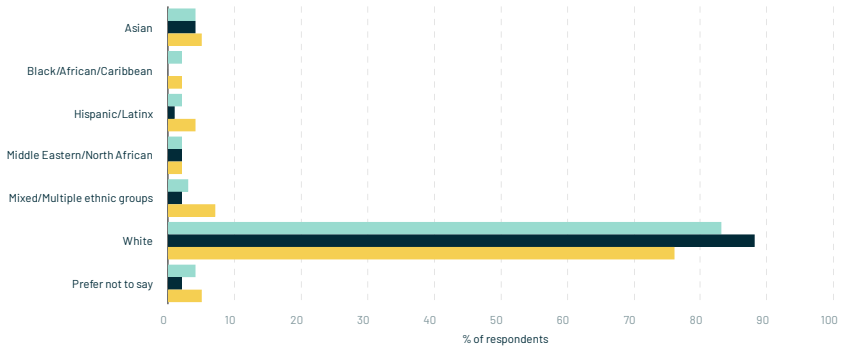
Share of founder respondents (%) who have raised external funding by self-identified ethnicity

LEGEND

- All founders
- Already raised external capital
- Bootstrapped to date

NOTE:

Sample sizes across different respondent groups are lower when multiple segmentation filters have been applied, such as job function, ethnicity and gender. Please interpret the data with this in mind. Numbers may not add to 100 due to rounding.



SOURCE: The State of European Tech Survey

As such, it should not come as a surprise that although most founders have found it harder to raise venture capital in Europe in the last 12 months, it is especially true for underrepresented founders. For reference, last year, 31% of underrepresented founders found it harder to fundraise; that number has jumped by an extra 31% this year with 62% finding it more challenging to raise venture capital on average.

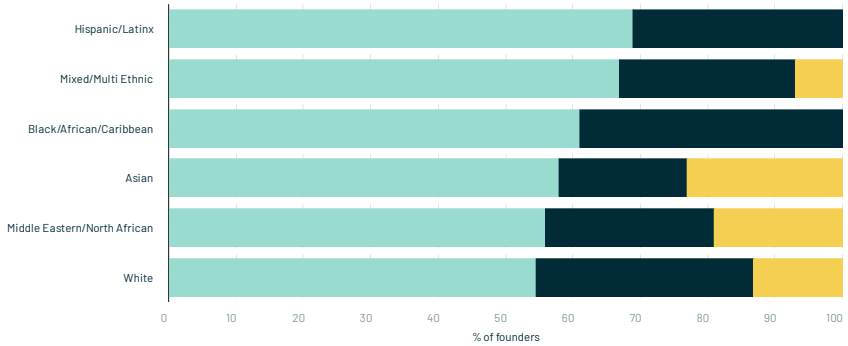
In your opinion is it easier or harder to raise venture capital in Europe than it was 12 months ago?

LEGEND

- Harder
- Unchanged
- Easier

NOTE:

Founders respondents only. Numbers may not add up to 100 due to rounding. Sample sizes across different respondent groups are lower when multiple segmentation filters have been applied, such as job function, ethnicity and gender.



SOURCE: The State of European Tech Survey

When asked whether they think the European tech ecosystem is fair to people from all demographics, backgrounds and experiences, a large share of survey participants disagreed and voiced concerns over inequalities, proving that it is all the more urgent for us to act. While 41% of men respondents believe that equal opportunity is available to all, only 19% of women respondents share the same sentiment. Most notably, however, 77% of Black/African/Caribbean participants disagreed to this statement.

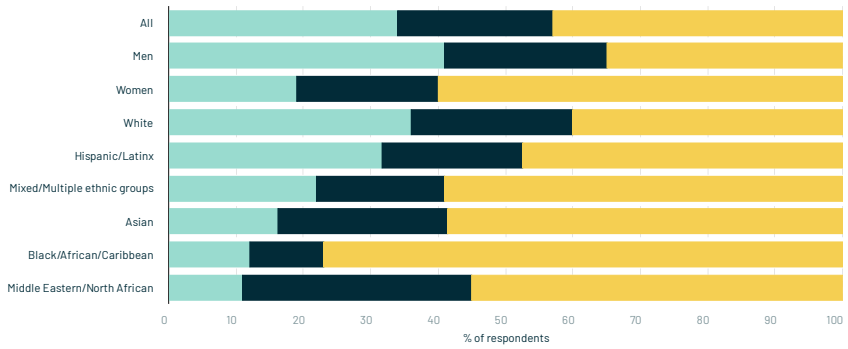
The European tech ecosystem provides equal opportunity for people of all demographics, backgrounds, and experiences

LEGEND

- Agree
- Neither
- Disagree

NOTE:

All respondents. Numbers may not add up to 100 due to rounding.



SOURCE: The State of European Tech Survey

- The responses were broken down to examine sentiment by gender and ethnicity at the same time. 86% and 72% of women respondents who self-identified as Black/African/Caribbean and Asian, respectively, don't believe the European tech ecosystem provides equal opportunities for all. Across the board, however, respondents more or less seem to share this view, particularly women respondents.

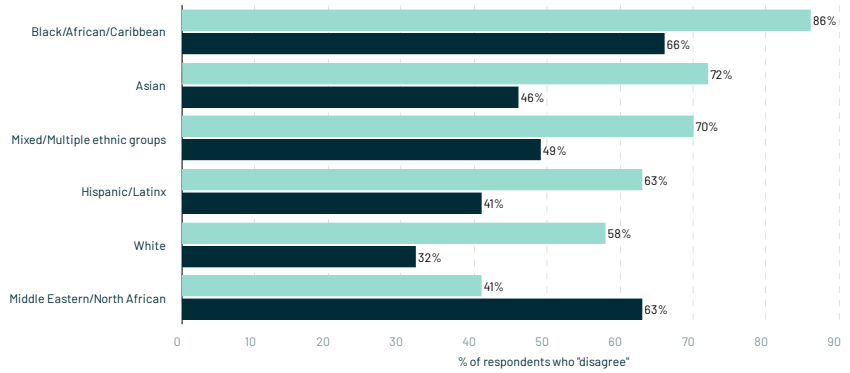
Share of respondents who disagree with the statement: The European tech ecosystem provides equal opportunity for people of all demographics, backgrounds, and experiences

LEGEND

- Women
- Men

NOTE:

Sample sizes across different respondent groups are lower when multiple segmentation filters have been applied, such as job function, ethnicity and gender.



SOURCE: The State of European Tech Survey

- In the first ever quantitative report on diversity beyond gender in Europe, Extend Ventures is shining an even grimmer light on the lack of investments in founders from ethnicities other than White. The Black and Multi-Ethnic communities represent 14% of the UK population but all-ethnic teams received 1.58% of all venture capital funding across stages between 2009-2019.

2¢

for every dollar invested in venture capital over the past 10 years has gone to all-ethnic teams.

0.02%

Furthermore, Black women founders received even less support with only 10 receiving VC funding equating to 0.02% of the total amount invested across the 10-year period and none so far raising late-stage funding.

0.24%

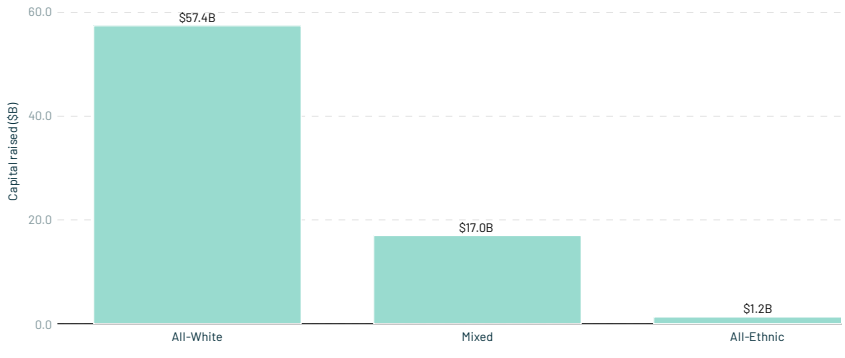
While all ethnic entrepreneurs are underfunded, Black founders, who represent 3.5% of the UK's population, are most heavily impacted with only 38 Black founders receiving venture capital funding in the last 10 years, representing just 0.24% of the total sum invested.

SOURCE: Extend Ventures

Total capital ($B) raised across all venture capital stages by ethnicity of funding team in the UK, 2009-2019

NOTE:

Based on 3,784 entrepreneurs who started 2,002 companies and received venture capital investment between 2009 and 2019.



SOURCE: Extend Ventures

Ethnicity data is not (yet) available at a European-wide level but given the size of the UK venture market, it provides particularly glaring proof of the lack of ethnic diversity in European tech. The data challenge is also present across other types of diversity. Over the past few years, Dealroom has taken huge strides forward in tracking the state of play on gender diversity. The difference between men-only teams and mixed/women-only teams continues to be huge. Men-only teams captured 91% of all capital raised and 85% of all rounds in 2020.

Share of capital raised and deals (%) by founding team gender composition

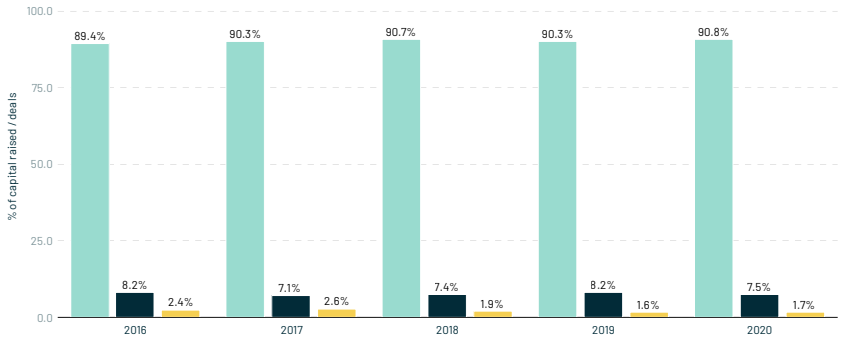
LEGEND

- Men
- Mixed
- Women

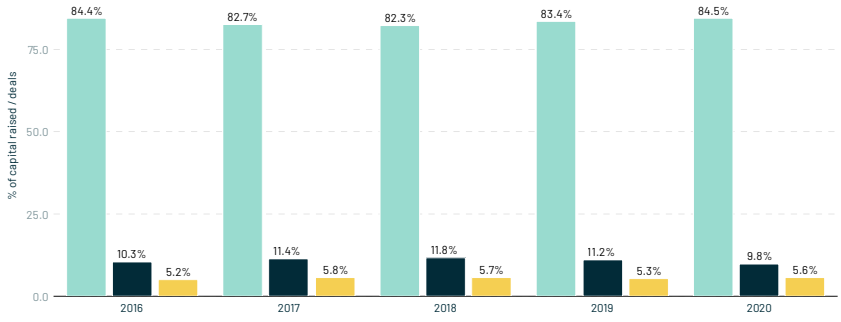
NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.

CAPITAL RAISED



DEALS



SOURCE: dealroom.co

We've made huge strides on the drive for greater gender Equity, but yet both for women, and other overlooked groups, there are still huge inclusion gaps.

Ashleigh Ainsley
Colorintech
Co-Founder

It's no surprise to hear that when just 0.24% of VC funding has gone to Black entrepreneurs - as an Extend Ventures report found earlier this year - most respondents recognise the European Tech landscape can do more. We've made huge strides on the drive for greater gender Equity, but yet both for women, and other overlooked groups, there are still huge inclusion gaps. We, for example, run an equity free pre accelerator program, Rise, which gets hundreds of applications from founders from diverse backgrounds. We have support from a number of the most progressive firms out there such as Atomico, Google.org and Microsoft, but the entire ecosystem has to do more. There are still too many funds that don't have diverse investment teams, partnerships with ground roots organisations, or rely on other people to work at the very early stage. You can't build an ecosystem if you only want to get involved after Series A!"

We asked founders to share whether they had raised any form of external capital or whether they had bootstrapped / self-financed their own company. Amongst survey respondents, 22% of all founders identified as women, although comprise of only 16% of founder respondents who have raised external capital.

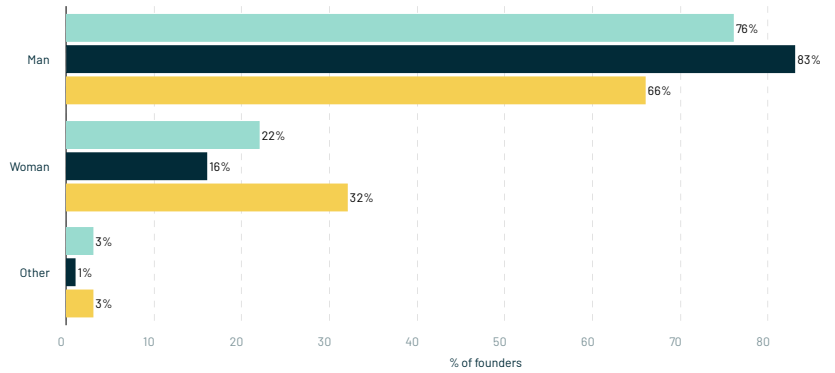
Share of founder respondents (%) who have raised external funding by self-identified gender

LEGEND

- All founders
- Already raised external capital
- Bootstrapped to date

NOTE:

Founders respondents only.



SOURCE: The State of European Tech Survey

Last year, there was a very meaningful gap between women and men founders when it came to their ability to fundraise, and the Covid-19 pandemic threatened to increase this disparity further. But if it is true that women still experience more challenges in raising venture capital than men, the difference is less pronounced when looking at ethnicity.

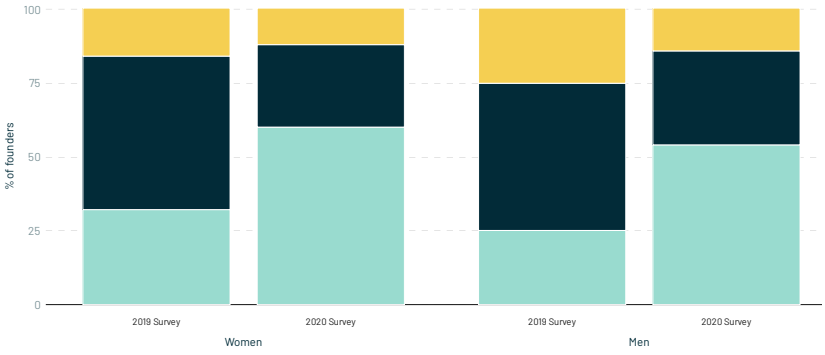
Is it easier or harder to raise venture capital in Europe than it was 12 months ago?

LEGEND

- Harder to raise
- Unchanged
- Easier to raise

NOTE:

Founders respondents only. Numbers may not add up to 100 due to rounding.



SOURCE: The State of European Tech Survey

Setting a magnifying glass on early stage investing, however, shows small signs of positive change. 2020 saw a "record" number of rounds by women who have raised between $10M to $50M. For rounds below $10M, the share seems to oscillate around 6%. This is hopefully the start of a broader trend of capital flowing across more diverse sets of founders. Figures are bleak at a later stage, however; not one deal over $50M has been closed by a women-only team.

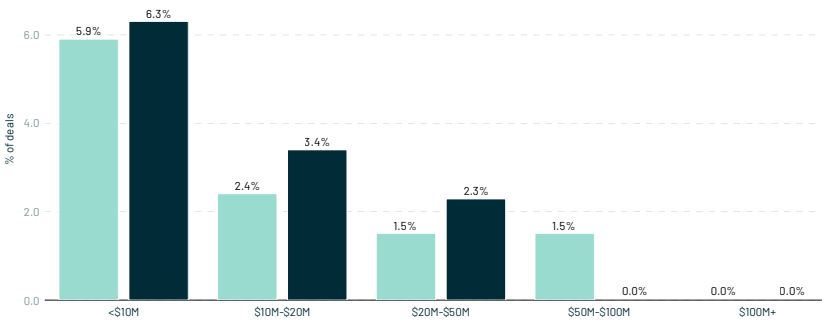
Share of deals (%) by round size and year for women founding team

LEGEND

- 2019
- 2020

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. 2020 is annualised based on data to September 2020.



SOURCE: dealroom.co

Select VC-backed European startups with women founding teams

Anna von Stackelberg
Health / Berlin

Tania Boler
FemTech / London

Osnat Michaeli
FoodTech / Berlin

Josefin Landgard
Health / Stockholm

Chloe Macintosh
Marketplace / London

Fiona Canning
Fintech / London

Anne Boden
Fintech / London

Sofia Pessanha
Enterprise Software / Lisbon

Milda Mitkutė
Marketplace / Vilnius

Tugce Bulut
Enterprise Software / London

Cristina Fonsecaa
Enterprise Software / Lisbon

Maria Piechnick
Robotics / Dresden

The share of rounds raised by gender-diverse founding teams varies by country across Europe. Looking at the total distribution of deals raised by founding teams since 2016, it is worth noting that countries from Southern Europe such as Portugal, Italy and Spain are performing better in terms of gender diversity compared to other countries in Northern Europe, such as Denmark and the Netherlands.

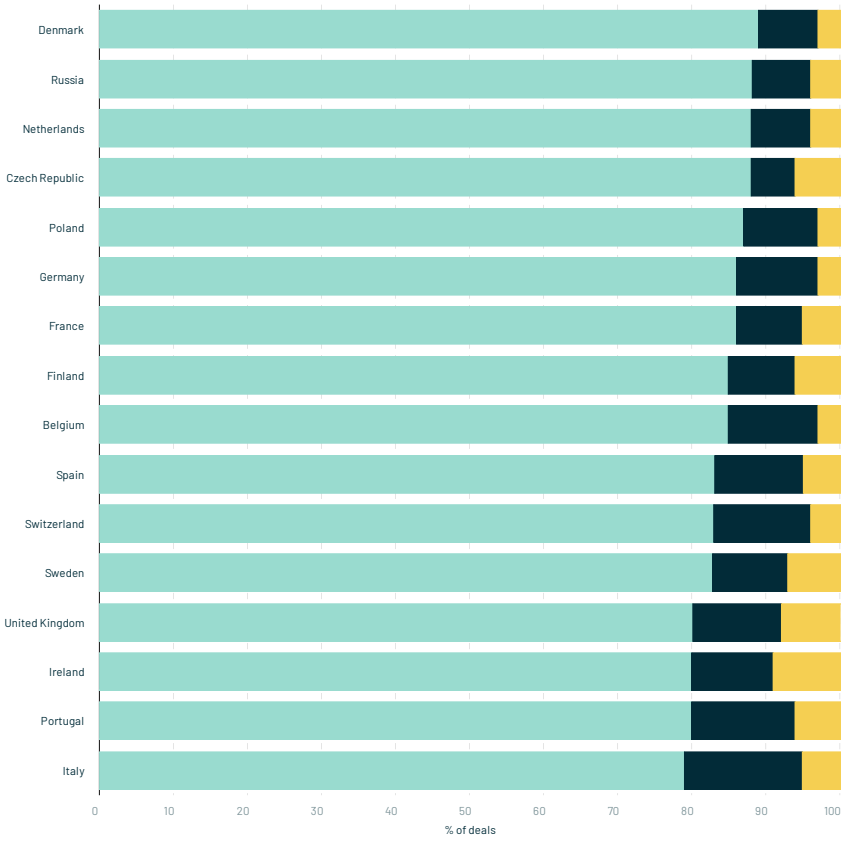
Share of deals (%) by founding team gender composition and country, 2016-2020

LEGEND

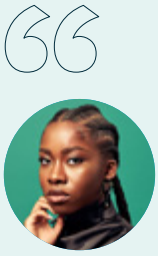
- Men
- Mixed
- Women

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.



SOURCE: dealroom.co



Nana Addison
CURL
Founder and Director

As a Ghanaian-German female founder, living and raised in Germany, I think the hardest thing is access and being taken seriously. Often times if you are not already part of a network (which most 1-2 generation immigrant startup founders aren't) it is really hard to tap into that. It's very much like a sorority over here. Secondly since most VC are white, male and 40+ they often don't understand the ideas, products or opportunities within the Female BIPoC founders community as well as do not understand these markets and their growth/ expansion potential at all.

Looking at the share of deals by founding team gender composition, the year-on-year trends across select European countries vary. Some countries such as Sweden (see below), France and Germany are seeing a slow but steady trend in the share of deals by all women founding teams, but this doesn't ring true for others.

Share of deals (%) by founding team gender composition

LEGEND

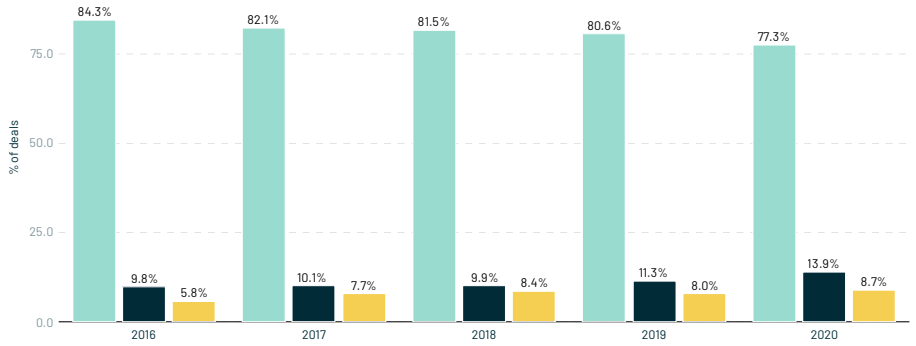
- Men
- Mixed
- Women

SCAN TO UNLOCK ADDITIONAL DATA

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel.

Sweden



SOURCE: The State of European Tech Survey

It is also interesting to explore the density of women founders on a relative basis to the general working population size of different countries. On a population-adjusted basis, Finland, Sweden and Ireland stand out.

Number of rounds per 1 million working women, 2016 to 2020

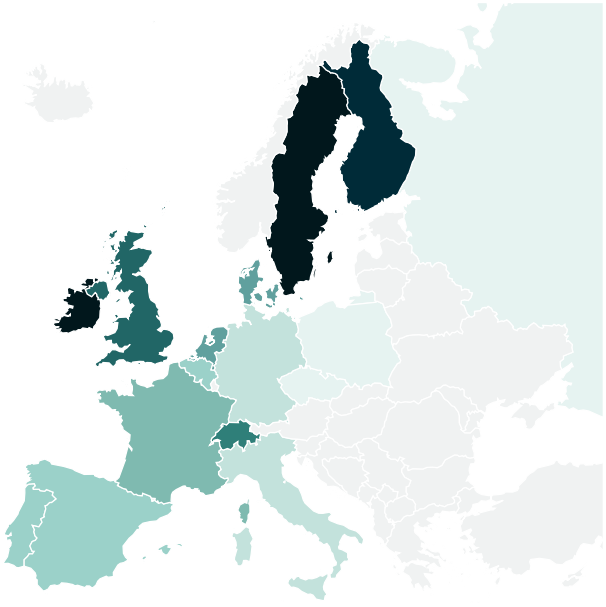
LEGEND

- 1-5
- 6-10
- 11-15
- 16-30
- 31-50
- 51-70
- 70+

SCAN TO UNLOCK ADDITIONAL DATA

NOTE:

All Dealroom.co data excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Please also note that the data excludes Israel. Labour data from the Worldbank.



SOURCE: dealroom.co

Beyond gender and ethnicity, 70% of those who have been discriminated against because of their socio-economic status also overwhelmingly rejected the fairness of the tech ecosystem. Separately, it's worth noting that 40% of respondents who have not experienced any form of discrimination believe that the European tech ecosystem provides equal opportunity to all.

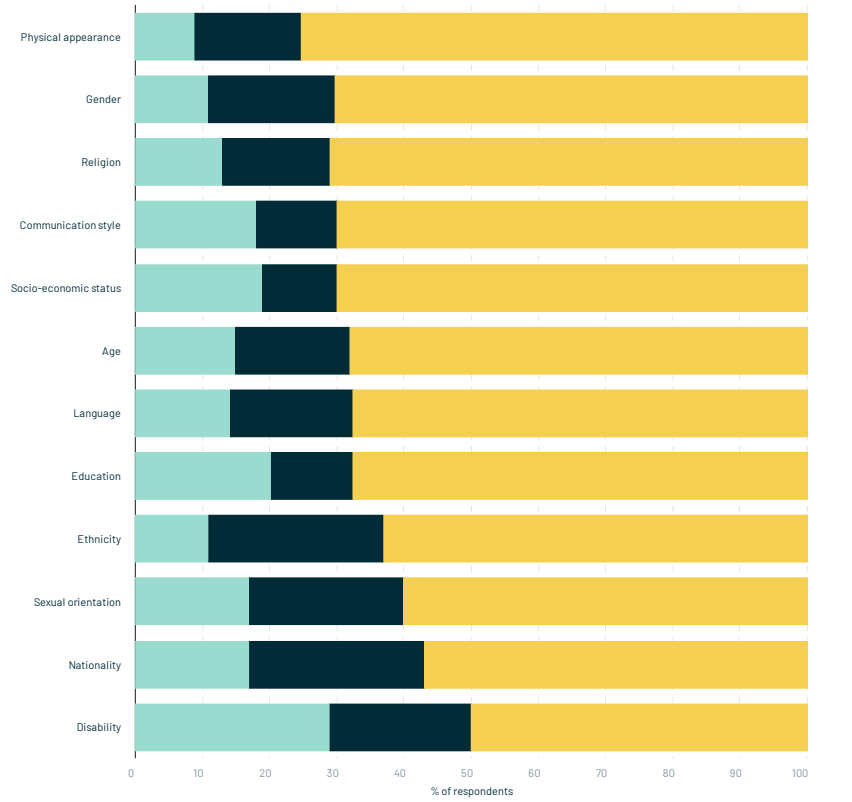
The European tech ecosystem provides equal opportunity for people of all demographics, backgrounds, and experiences

LEGEND

- Agree
- Neither
- Disagree

NOTE:

All respondents. Numbers may not add up to 100 due to rounding. Only forms of discrimination with over 50 respondents were included. Respondents were able to select up to all types of discrimination applicable to them.



SOURCE: The State of European Tech Survey

ELITE EDUCATIONAL BACKGROUND

42.7%

of UK capital invested at seed over the past 10 years was invested in founding teams with at least one member from an elite educational background. (Oxford, Cambridge, Harvard, Stanford).

SOURCE: Extend Ventures

If we look at the highest educational attainment of founder respondents to the survey, 84.5% of all founders reported having completed university education (bachelor's degree or higher) while 15.5% have not. Furthermore, of the founders who have raised external capital to date, 82.5% have had a university education while 17.5% have not.

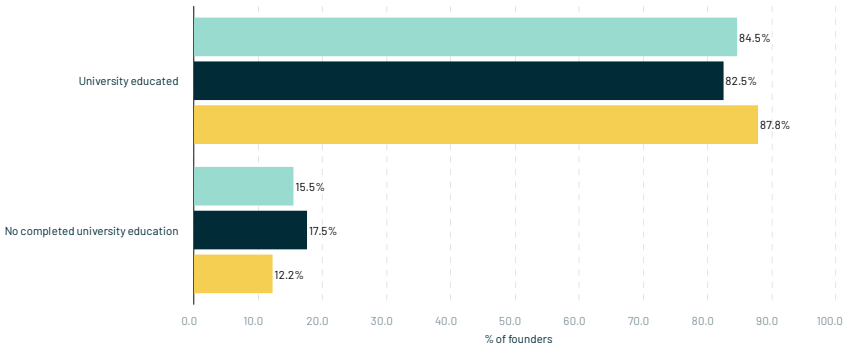
Share of founder respondents (%) who have raised external funding by educational background

LEGEND

- All founders
- Already raised external capital
- Bootstrapped to date

NOTE:

Share of founders who reported having already raised external capital (of any amount) versus reporting having bootstrapped their companies. Numbers may not add up to 100 due to rounding.



SOURCE: The State of European Tech Survey

Exposing biases

There is strong agreement across the European tech and VC community about the importance of creating a more diverse and inclusive industry.

The launch of a new diversity 'standard' for VC firms in September 2020 by the non-profit organisation Diversity VC aimed at standardising the approach to diversity across the industry and drive meaningful action has been adopted by already by 11 VC firms. The survey includes a number of questions each year to explore the progress made on building a more diverse and inclusive European tech industry in the past 12 months. While many feel better informed and more empowered to take actions towards this goal and /or continue to change their behaviours, it is also clear that for many the industry is a long way from creating equal opportunity for people of all demographics, backgrounds and experiences.

> **Until we see the change we want to see, we need to look at this as an injection to the DNA, the rewriting of the algorithm, not an add-on for the sake of diversity.**

Nora Bavey
Unconventional Ventures
Partner

We need to understand that [hurdles to underrepresented founders raising capital] are a structural problem. With this I don't mean that the structures are not working, in fact it is the very opposite. The structures are working exemplary by only benefiting those who define and design the current structures. There isn't a design error in that sense and the only way we can create better outcomes for those other than the typical funded entrepreneur, the white cis man, is by designing and building new structures. There are existing examples of new types of VC's and new structures and I am positive that more will follow. Until we see the change we want to see, we need to look at this as an injection to the DNA, the rewriting of the algorithm, not an add-on for the sake of diversity. As a new player in the world of venture I am on the mission to rewrite these algorithms and I believe these will be unconventional.

Progress in building a more diverse, equitable and inclusive European tech ecosystem has been slow. The increased attention on ethnic diversity heightened by the "Black Lives Matters" movement has further highlighted that the way systems are structured today benefits certain privileged ethnic groups at the expense of others and, consequently, impedes the progress of the disadvantaged. These systemic issues exist within the European tech ecosystem, too. According to our survey, 59% of Black/African/Caribbean women and men have experienced discrimination in some form in the last 12 months versus 8% of White men.

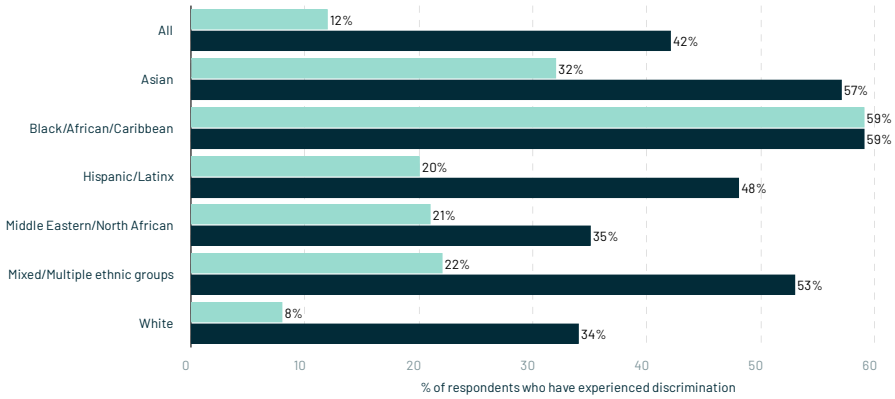
In the last 12 months, have you experienced any form of discrimination while working in the European tech industry?

LEGEND

- Men
- Women

NOTE:

Sample sizes across different respondent groups are lower when multiple segmentation filters are have been applied, such as job function, ethnicity and gender. Please interpret the data with this in mind.



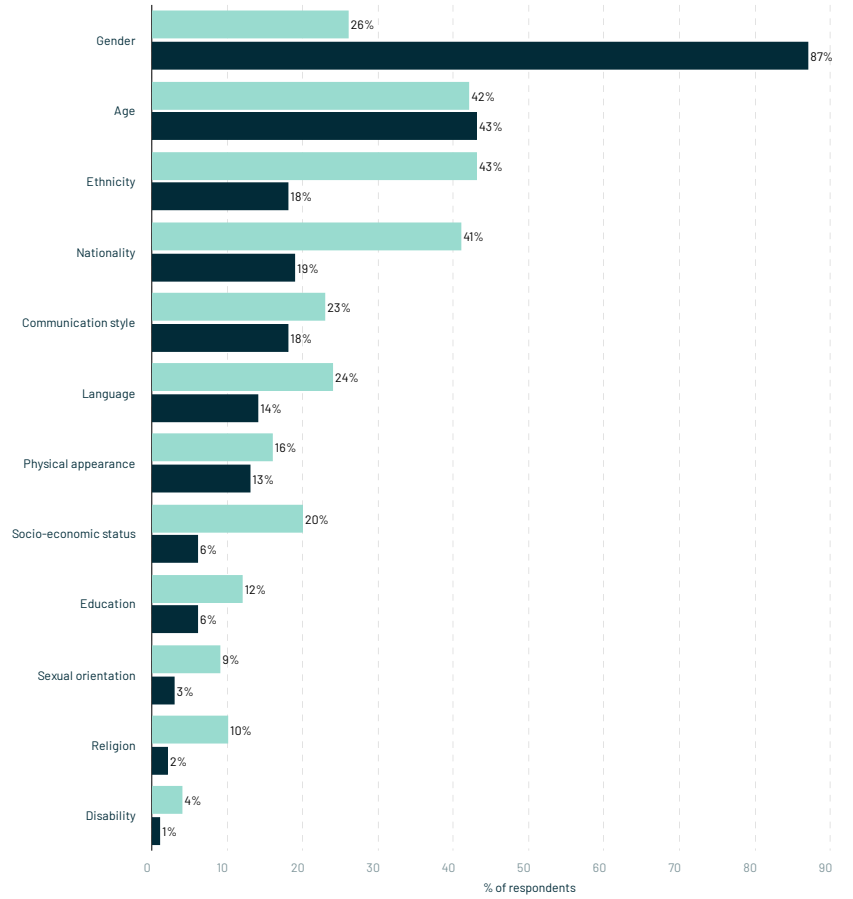
SOURCE: The State of European Tech Survey

Looking at the data from a gender perspective shines a harsh light into the challenges that men and women face working in the tech ecosystem. When we asked different respondent groups about the kinds of discrimination they have faced, the split becomes very clearly distinguished. An overwhelming 87% of women are challenged by gender discrimination compared to 26% of men. Men more frequently experience discrimination pertaining to socio-economic status, nationality and ethnicity than their women counterparts.

What kind of discrimination have you experienced?

LEGEND

- Men
- Women



NOTE:

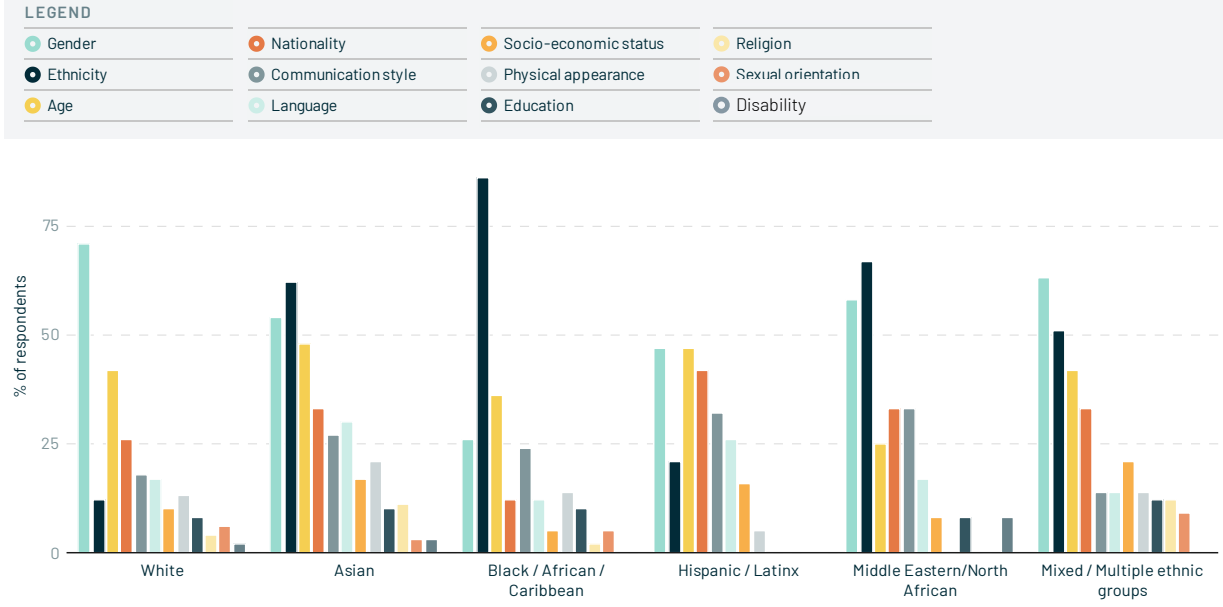
Respondents were able to select up to all types of discrimination applicable to them.

SOURCE: The State of European Tech Survey

Slush 2019
Photo by: Pasi Salminen

While it's important to examine the disparities in sentiment and experiences across gender groups, it's equally important to do the same across different ethnic groups. When we took a closer look into the types of discrimination that individuals face across different ethnic subsets, we found that larger shares of respondents who did not identify as White more prominently face ethnic discrimination. 86% of respondents who identify as Black/African/Caribbean have faced discrimination due to their ethnicity compared to 12% of respondents who identified as White.

What kind of discrimination have you experienced?



SOURCE: The State of European Tech Survey

NOTE:
Respondents were able to select up to all types of discrimination applicable to them.
Sample sizes across different respondent groups are lower when multiple segmentation filters are have been applied.

The impact [of the Black Lives Matter movement] led organisations to face what they had been avoiding for centuries: the fact that racism exists and is prevalent in our workplace, communities, and businesses.

Deborah Okenla
YSYS
Founder

The impact [of the Black Lives Matter movement] led organisations to face what they had been avoiding for centuries: the fact that racism exists and is prevalent in our workplace, communities, and businesses. Here in the UK, the impact led to organisations embarking on D&I workshops, holding safe space forms, reviewing their process, volunteering with their community and so much more. But importantly, it strengthened the bond and unity between black communities all over the world, from US, to Nigeria, recognising the injustice the black community experiences is happening on a global scale and requires a global response. At YSYS we hosted The Rise of Black Tech Communities event bringing together black community leaders, to reinforce this bond - discussing resilience, strength and activism - turning our pain into power!

When we asked respondents if it is more difficult for them to be successful in tech because of their background or identity, it became clear that many demographic groups face this challenge. 72% of respondents that self-identified as Black/African/Caribbean and 52% of respondents that identified as women agreed that their background or identity makes it more challenging for them to be successful.

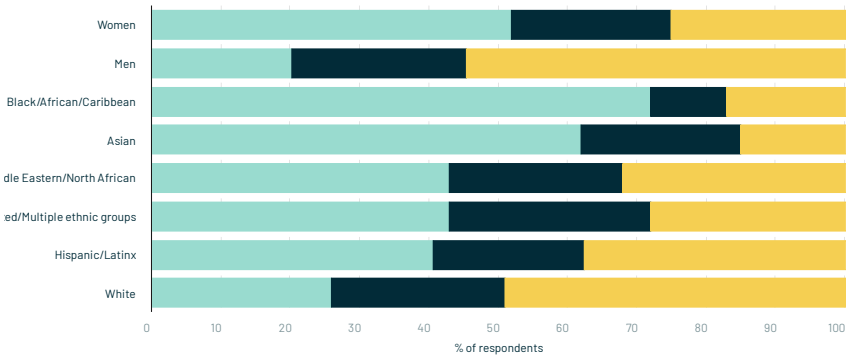
It is more difficult for me to be successful in tech because of my background and/or identity

LEGEND

- Agree
- Neither agree nor disagree
- Disagree

NOTE:

Numbers may not add up to 100 due to rounding. Sample sizes across different respondent groups are lower when multiple segmentation filters are have been applied, such as job function, ethnicity and gender. Please interpret the data with this in mind.



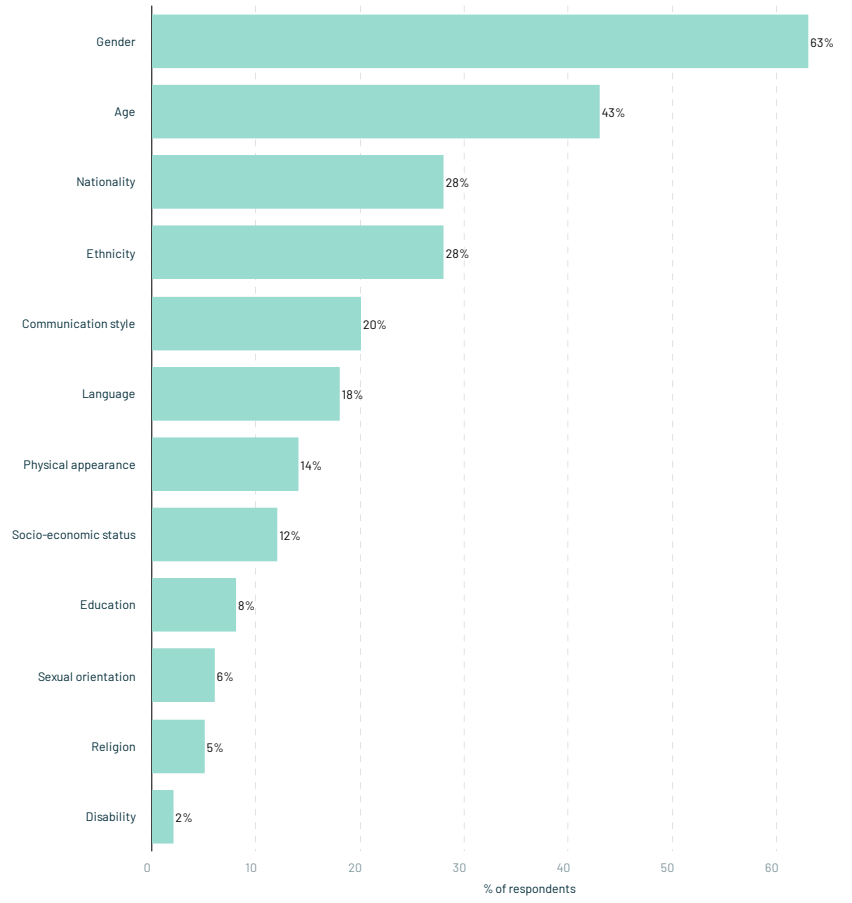
SOURCE: The State of European Tech Survey

When asked about the type of discrimination survey respondents experienced in the last 12 months, gender and age discrimination are the most often cited with 63% and 43% of our respondents experiencing this respectively. Further, almost 1 in 3 respondents experienced discrimination based on their nationality and ethnicity. Notably, 64% of respondents who answered this question shared that they have experienced more than one type of discrimination and almost 40% had experienced discrimination of three different forms or more.

What kind of discrimination have you experienced?

NOTE:

Respondents were able to select up to all types of discrimination applicable to them.



SOURCE: The State of European Tech Survey

Drilling down further into age, respondent groups between the ages of 31-40 experience the most discrimination. Of the 31% of respondents aged <30 years old, 47% have experienced age discrimination.

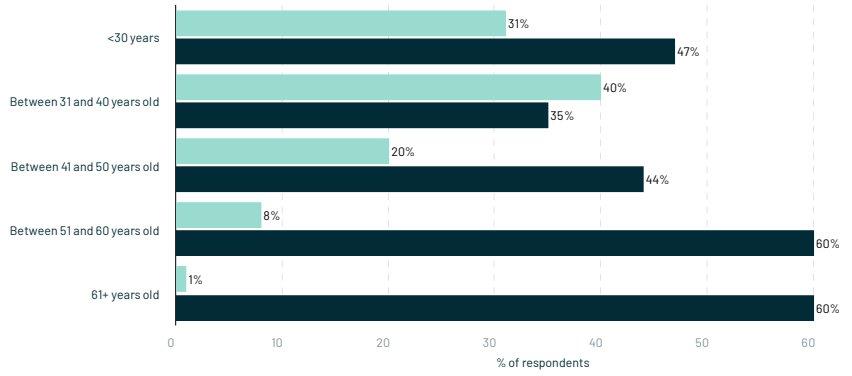
Age groups of respondents experiencing discrimination

LEGEND

- All respondents
- Respondents who have faced age discrimination

NOTE:

Sample sizes across different respondent groups are lower when multiple segmentation filters are have been applied, such as job function, ethnicity and gender. Please interpret the data with this in mind.



SOURCE: The State of European Tech Survey

Call to Action

Respondents were asked to review a number of statements and select the ones which they felt meaningfully changed, whether in a positive or negative way if at all. Respondents were overall more positive about the steps taken to increase gender diversity in the workplace but less positive around progress made on diversifying the ethnic makeup of their organisation.

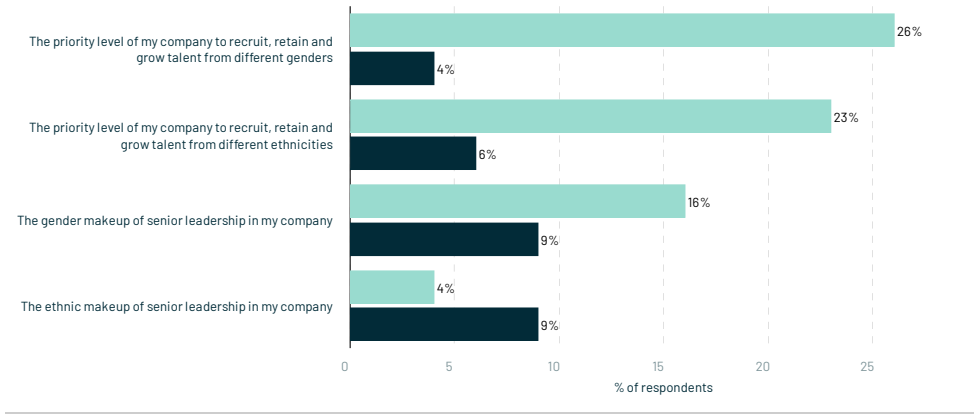
In your view, which of the statements below (if any) have meaningfully change since 12 months ago?

LEGEND

- Share of respondents for which it has 'meaningfully improved'
- Share of respondents for which it has 'meaningfully worsened'

NOTE:

Respondents were able to select up to all choices that were applicable for this question. Please interpret the data with this in mind.



SOURCE: The State of European Tech Survey

- Respondents mentioned that in the last 12 months, the focus on recruiting, retaining and growing talent from different genders has become a bigger focus. It is clear though that this focus is happening at the "junior" layer of these organisations as very few have seen meaningful progress in senior leadership change, except perhaps for employees at tech start-ups and scale-ups who are noticing more positive steps taken in their workplace.

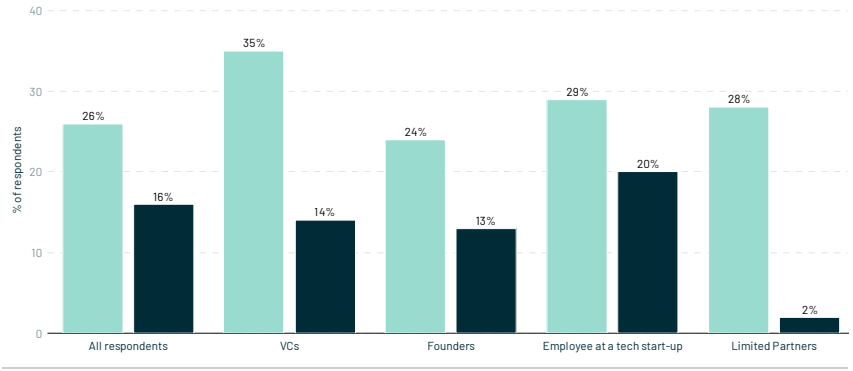
In your view, which of the statements (if any) have meaningfully improved since 12 months ago?

LEGEND

- The priority level of my company to recruit, retain and grow talent from different genders
- The gender makeup of senior leadership in my company

NOTE:

Respondents were able to select up to all choices that were applicable for this question.



SOURCE: The State of European Tech Survey

- Close to one quarter of all respondents have seen improvements around the ethnic makeup of their company, but they all report very little change happening at the leadership level.

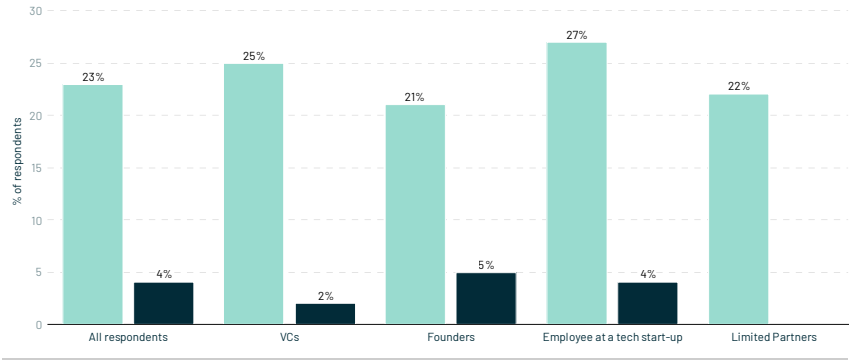
In your view, which of the statements (if any) have meaningfully improved since 12 months ago?

LEGEND

- The priority level of my company to recruit, retain and grow talent from different ethnicities
- The ethnic makeup of senior leadership in my company

NOTE:

Respondents were able to select up to all choices that were applicable for this question.



SOURCE: The State of European Tech Survey

The change also needs to take place on the "other side of the table", the investment side: Decision – & dealmakers need to get more diverse on all levels (junior to senior).

Nina Wöss
Female Founders
Co-Founder

The change also needs to take place on the "other side of the table", the investment side: Decision- & dealmakers need to get more diverse on all levels (junior to senior). If we look at the ratio of female/male partners at VCs, we realise, there is still a long way to go. This obviously goes beyond the question of gender, and also should include other aspects of diversity. Having a more mixed group of people discussing a potential investment will lead to different investment decisions. In addition to that, this will also lead to a broader and more diverse funnel for investors, as this is going to attract teams that might not have felt that they were the target group before.

An obvious but perhaps important point to reiterate is the need for VCs to continue to diversify their network in order to rebalance the flow of investments going to founders of different ethnicities. Although an imperfect measure, the non-white percentage of someone's family and close friendship circle is a helpful proxy of 'trusted network' diversity.

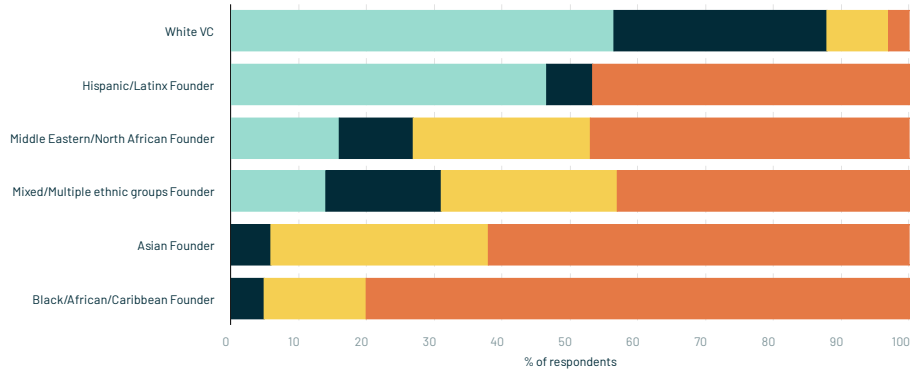
What percentage of your family and close friendship circle is non-white?

LEGEND

- 0-5%
- 5-20%
- 20-50%
- Over 50%

NOTE:

Numbers may not add up to 100 due to rounding.



SOURCE: The State of European Tech Survey

> **It's time to be accessible: get on the frontline and start volunteering, mentoring, hosting office hours, attending diverse events you would have never considered before, make your statements bold, use diverse jobs boards.**

Deborah Okenla
YSYS
Founder

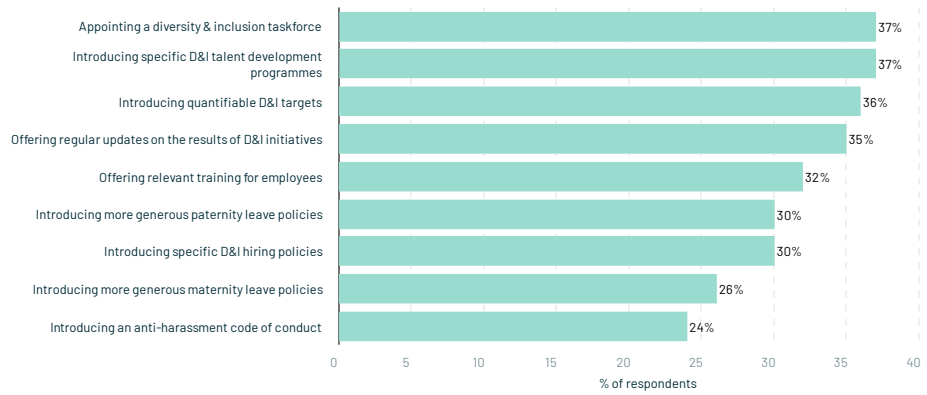
If investors don't know by now that the first thing to do is go beyond their immediate network, then they have been hiding in the bushes. Diversify your network! Investors always say there is a pipeline problem, and the talent is hard to reach, but have they ever considered that they are the ones who are hard to reach? It's time to be accessible: get on the frontline and start volunteering, mentoring, hosting office hours, attending diverse events you would have never considered before, make your statements bold, use diverse jobs boards. You can start with using YSYS jobs board, but don't end with us only.

There are still a number of actions that tech startups and scale ups can take to improve diversity and inclusion. A diversity taskforce with representation from across the firm (all seniority level and teams) can drive progress while keeping the whole firm accountable. Similarly setting quantifiable objectives is an effective way to push for better alignment across the organisation.

Amongst the following list of actions, which one(s) if any did your company not adopt yet

NOTE:

Respondents were able to select up to all choices that were applicable for this question.



SOURCE: The State of European Tech Survey

Europe Diversity Initiatives

A powerful reason to be optimistic about building a more diverse and inclusive European tech ecosystem is the growing number of initiatives working directly to achieve this goal, like the top 25 organisations and initiatives that Sifted identified this year.

10x10
United Kingdom

23 Code Street
United Kingdom

50inTech
France

Ada's List
United Kingdom

Blooming Founders
United Kingdom

Colorintech
United Kingdom

Czechitas
Czech Republic

Female Founders
Austria

Femstreet
Online

Foundervine
United Kingdom

Fundright
The Netherlands

Girls in Tech
Switzerland

Google for Startups
Europe

Inklusiiv
Finland

La French Tech Tremplin
France

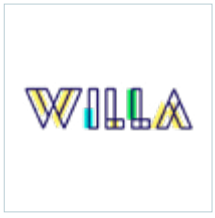
One Tech
United Kingdom

Portuguese Women in Tech
Portugal

Rails Girls
Finland

SheTech
Italy

Station F Fighters Program
France



Willa
France

Women in AI
Online

Women in Tech DK
Denmark

YSYS
United Kingdom

#BcnTech4Women
Spain

07

Regulation & Policy

What can policymakers do to help startups?

Has Covid-19 changed how governments and the tech ecosystem interact? As Europe faces the challenge of post-Covid economic recovery, startups stand out as the fastest engine for job creation in Europe. But while governments have supported startups in unprecedented and innovative ways through Covid-19, founders still feel like some of their priorities are not being heard.

07.1

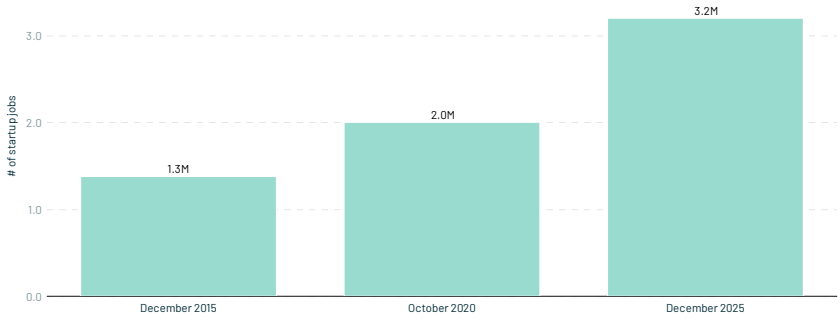
Tech & Government

Tech: Motor for Growth

In this section we are exploring employment in startups in partnership with Dealroom. Its proprietary database and software aggregate public information via machine learning and APIs. This includes Chamber of Commerce, news flow, and user-generated data verified by Dealroom. All data is verified and curated with an extensive manual process. All jobs at start-ups are counted, not just 'tech' jobs and companies with unavailable employee data, or with 1 employee (thus not offering jobs) are excluded.

The estimated number of people working in European tech start-ups has reached two million, an increase of 0.7M jobs in the past five years. Given the current trajectory and accelerated rate of employment growth within European start-up communities, Dealroom estimates that a further 1.2M jobs could be added over the next five years.

Number of start-up jobs estimated in Europe



SOURCE: dealroom.co

Why should governments pay attention to start-ups? There are many possible answers. One important reason is that they are a motor for growth. Unsurprisingly, employment growth at European start-ups far outpaces the employment growth rate of the European economy. In recent years the gap has grown wider as Europe's tech startup communities have flourished and employment growth has accelerated, in stark contrast to the slowdown observed in the rest of the economy. 2020 may have temporarily eroded the pace of growth of start-up employment, but the gap with European employment growth remains colossal.

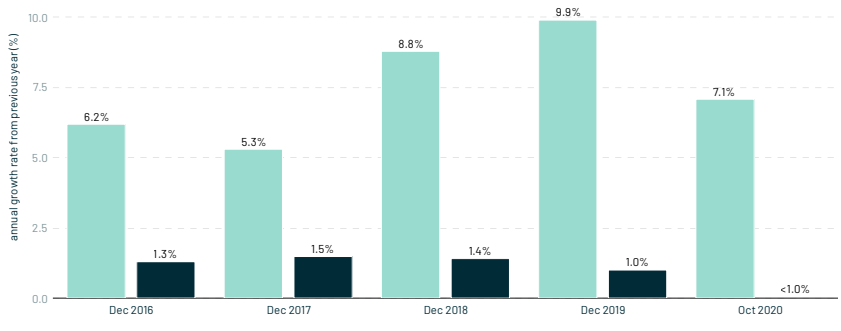
Start-up jobs year on year growth rate (%) across Europe

LEGEND

- Startups employment YoY growth(%)
- EU employment YoY growth(%)

NOTE:

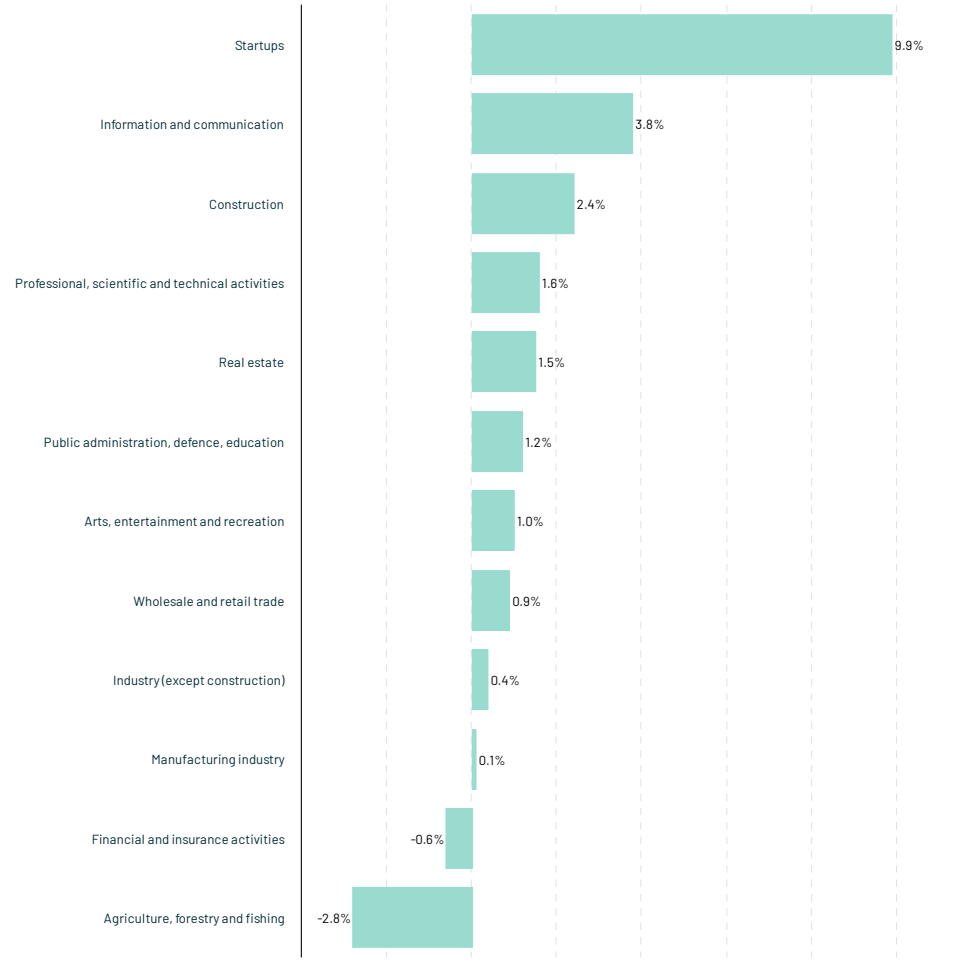
Europe employment growth rate sourced from EuroStat. Start-up employment data sourced from Dealroom.



SOURCE: eurostat dealroom.co

Given the difference in absolute new job contribution, it might be unfair to benchmark start-up employment growth against sectors that are made up of companies of all ages and sizes. It is still valid, however, to say that there is no other engine in the economy that can match the relative speed of employment growth of Europe's start-ups.

Jobs growth rate across Europe by sector, 2019 versus 2018



NOTE:

All sector growth rate from EuroStat, except for "start-ups" where Dealroom is the source.

SOURCE: dealroom.co

The role of venture capital in supporting employment growth is demonstrated by the accelerated pace of job creation at start-ups that have raised greater levels of investment. The increased flow of capital invested into European tech start-ups, especially through larger growth rounds of financing, should continue to drive accelerated levels of employment growth from these cohorts of companies.

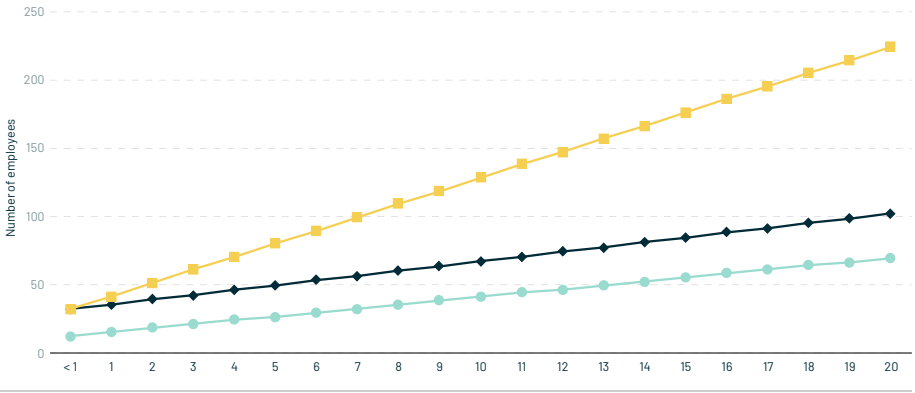
Trend line for European start-ups team size by age and total capital raised

LEGEND

- Seed
- Series A
- Series B

NOTE:

Trend line based on 60,000+ start-ups average team size and by company age and total funding raised.



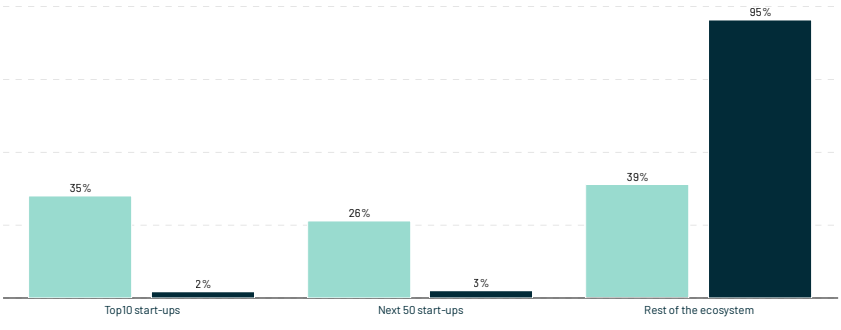
SOURCE: dealroom.co

An important point to note is that start-ups' contribution to employment growth is more distributed than the contribution towards total value, as measured by their share of total combined enterprise value created. In other words, while the top 10 start-ups account for 35% of total enterprise value created, they account for only 2% of total jobs created. Similarly, the next 50 start-ups account for a further 26% of total enterprise value, but only 3% of total jobs. And while the remaining tens of thousands of start-ups only collectively account for 39% of enterprise value, they are responsible for 95% of start-up jobs. It is important that this is understood by policymakers as they think about the most appropriate measures to support start-ups of different sizes.

Distribution of value versus distribution of jobs

LEGEND

- Valuation as % of total
- Employees as % of total



SOURCE: dealroom.co

Relief Funding & Innovation Programmes

There are clear benefits to closer collaboration between policymakers and the tech ecosystem. The Covid-19 pandemic, if anything, has increased the focus on this point, as technology played a crucial role in enabling economies to adapt to the realities of virtual living and working. But even before the pandemic, Europe had started building out the "infrastructure" needed to support the growth of start-ups via a number of regional and European initiatives. This article explores the role that governments have played in supporting the start-up ecosystem following the onset of the pandemic, paying particular attention to funding relief programmes, government innovation programmes and tendering processes.

Though it may have felt slow at the time, it is now apparent that governments and institutions across Europe reacted quickly and decisively to set up dedicated relief programmes in response to the impact of widespread lockdown measures on startups. In some cases, these programmes were up and running within weeks. France, for example, was fastest to respond, announcing an extensive set of measures to support local start-ups just one week after entering into a strict lockdown in March.

Governments and Institutions Relief Programs

	Country	Institutions	Covid-19 response	Relief programs
1	France	Bpifrance	€5.2B	Guarantees, accelerated tax credits, direct loans
2	Germany	BMWi, KfW, regional banks	€2B	Fund-of-funds, direct loans
3	UK	BBB, Innovate UK, EIS	£1.25B	Co-investing, direct loans
4	Sweden	Saminvest, Almo, Vinnova	SEK3B	Direct investing, guarantees, tax credits
5	Netherlands	RVO, BOM, InvestNL	€100M	Direct loans
6	EU	EIF, EIB, EIC, Horizon Europe	€300M	Fund-of-funds triggering investments of up to €1.2B

SOURCE: dealroom.co

To date, attention has rightly focused on the vital life support these loans are providing for many start-ups and scale-ups, but it will be fascinating to see how states leverage their shares in the long term, particularly as tax payers demand transparency and accountability over the investments made.

Leo Rees
Onward
Fellow

The Covid-19 response has provided an interesting prompt to review the state's role as a direct investor in early-mid stage firms. Stopgap solutions like the UK's Future Fund, and its equivalents in mainland Europe have given governments equity stakes either directly, or in the form of convertible loans. To date, attention has rightly focused on the vital life support these loans are providing for many start-ups and scale-ups, but it will be fascinating to see how states leverage their shares in the long term, particularly as tax payers demand transparency and accountability over the investments made.

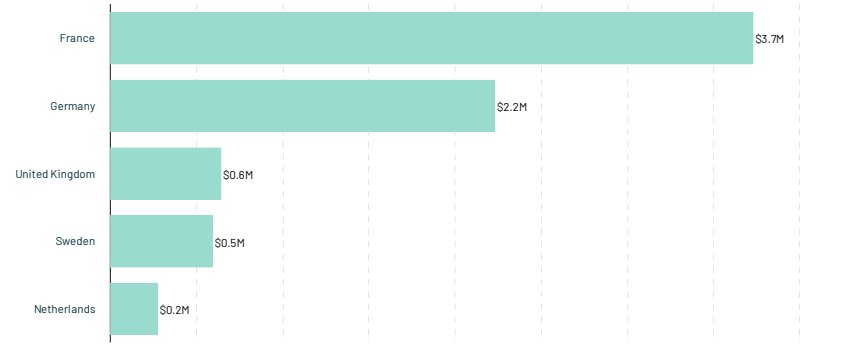
Much has been made of Europe's potential to create 'entrepreneurial states'. Advocates for the idea normally focus on the state's role in galvanising R&D and creating markets: processes that take far longer than normal political and investment timelines. But with these stakes, European governments have a petri dish to experiment with entrepreneurialism over a shorter time horizon. Will they seek profitable exits to recoup cash as soon as possible for their stuttering economies? Or will they use their stakes more strategically, perhaps crowding entrepreneurs into solving challenges in the public interest?

To get a sense of the scale of these relief programmes, we benchmarked them against the universe of unique funded companies that raised more than >$2M. As measured by the average amount of funding provided on a per start-up basis, France's programme has offered the most generous funding amounts to startups, at $3.7M. This compares to $0.6M in average support for companies in the UK and $2.2M in Germany.

Relief programme amount per start-up with funding >$2M per country

NOTE:

Based on 1,553 companies in France, 987 companies in Germany, 2,516 companies in the UK, 511 in Sweden and 376 in the Netherlands.



SOURCE: dealroom.co

> The French government was the first in the world to set up an Emergency Plan for start-ups: €4.3bn unlocked one week after lockdown started. We were the fastest, because it was a no brainer. We believe in the future of tech entrepreneurship and stand by our ecosystem, in sickness and in health (although, preferably health).

Kat Borlongan
La French Tech
Director

> **As we entered the pandemic, there was legitimate fear that the UK could lose a generation of start-ups if the tech ecosystem stalled. With pressure on an economy that is largely being driven by tech, intervention came from the UK Government.**

Ylan Steiner
Orrick
Partner,Technology
Companies Group

As we entered the pandemic, there was legitimate fear that the UK could lose a generation of start-ups if the tech ecosystem stalled. With pressure on an economy that is largely being driven by tech, intervention came from the UK Government. In addition to measures available to the market generally, HM Treasury responded to lobbying from the venture community to introduce the Future Fund scheme, a lifeline in the form of a convertible loan package for innovators in need of sustainable financing. As a member of the task force that helped the government design and implement this scheme, we have been impressed by the process and strongly encourage continued equitable innovation-friendly policy to get through these crises. It's clear that is an investment not just in the future of tech, but our society at large.

Beyond temporary relief programs, we also wanted to get a better understanding of the other ways governments have supported start-ups across Europe.

To this end, we have collaborated with PUBLIC to better understand the role of 'GovTech' - innovative solutions addressing public sector challenges - in tackling the pandemic.

Across Europe, governments introduced a range of programmes and initiatives to identify and adopt innovative solutions to specific challenges brought on by Covid-19, from accelerators and hackathons to competitions and funding programmes. PUBLIC has comprehensively indexed all such programmes and initiatives. The categorisation used by PUBLIC is laid out here.

Types of government innovation programmes

	Description
Funding Only	Grant funding initiatives and pitch competitions generally only resulted in government funding, and not with additional support for deployment and uptake among the public sector
Funding and Support	Challenge-programmes, hackathons, incubators and accelerators generally included additional wrap-around support, such as mentoring, technical support and access to networks
Support Only	Platform / marketing refers to platforms that seek to promote and showcase relevant companies that could be deployed to tackle Covid-19 across a multitude of sectors

SOURCE: PUBLIC

Select partnerships between tech start-ups and Government

accuRx.

Video consultation and text messaging platform for primary care rolled into 1,300 GP practices
United Kingdom

CONVAISE

Conversational AI platform helping authorities better inform citizens about Covid-19
Germany

ICEYE

Earth observation start-up deployed microsatellites to track the economic impact of the crisis
Finland

MIRAKL

Marketplace enabling healthcare workers to buy essentials in partnership with the government
France

Patchwork

Covid-19 Digital 'Staff' Bank created for 14 NHS trusts
United Kingdom

sidekick

Digital therapeutics start-up built a Covid-19 tracker app for the national health system
Iceland

suve

Chatbot deployed to address disinformation in partnership with the government
Estonia

In total, PUBLIC has mapped out 86 different public sector initiatives launched across 26 different countries. The vast majority of these initiatives went beyond simple funding with 53 (62%) providing both funding and support on the development and procurement of innovative solutions.

List of initiatives by region and by country

UK & Ireland

	Initiative	Type	Sector
Ireland	SFI's COVID-19 Rapid Response funding	Grant Funding	Healthcare
Ireland	Innovate Together Fund	Grant Funding	Cross-Sector
Ireland	Co-Fund Programme for Medical Devices	Grant Funding	Healthcare
UK	TechForce19	Challenge Programme	Healthcare
UK	Medical Robotics for Contagious Diseases Challenge 2020	Challenge Programme	Healthcare
UK	COVID-19 Therapeutic Accelerator	Accelerator	Healthcare
UK	Innovate UK Coronavirus Grant Funding	Grant Funding	Cross-Sector
UK	COVID-19 Collaboration & Collaborative Grant	Grant Funding	Business Support
UK	Future Flight: Drone Projects to Address Covid 19	Grant Funding	Healthcare
UK	Space Helping the UK on COVID-19	Grant Funding	Cross-Sector
UK	COVID-19 Rapid Response Rolling Call	Grant Funding	Cross-Sector
UK	Wales COVID-19 Digital Solutions Fund	Grant Funding	Healthcare

Southern Europe

	Initiative	Type	Sector
Greece	Greece v Virus	Hackathon	Cross-Sector
Greece	Digital Innovation Against COVID-19 Ideas Challenge	Challenge Programme	Healthcare
Italy	Hack for Italy	Hackathon	Cross-Sector
Italy	Call4Ideas: Covid 19 Challenge	Challenge Programme	Healthcare
Italy	National Innovation Fund	Grant Funding	Cross-Sector
Portugal	Vale Incubação — COVID19	Incubator	Cross-Sector
Spain	Positive Energy +	Accelerator	Business Support
Spain	Special Spanish Research Programme on COVID-19	Grant Funding	Healthcare
Malta	R&D Fund for COVID-19 Innovations	Grant Funding	Healthcare
Malta	MDIA Award for Innovative Technologies in Response to COVID-19	Grant Funding	Cross-Sector
Malta	MITA YouStartIT Validator Programme with a special focus on Covid-19	Incubator	Healthcare

France & Benelux

	Initiative	Type	Sector
Belgium	Hack the Crisis Belgium	Hackathon	Cross-Sector
Belgium	BioWin Cooperation Platform	Platform	Healthcare
France	Hackathon Covid-19	Hackathon	Healthcare
France	Call for Projects for Innovative Solutions to Fight Covid-19	Challenge Programme	Healthcare
France	The Technology Transfer Acceleration Comapanies	Grant Funding	Healthcare
Luxembourg	Hack the Crisis Luxembourg	Hackathon	Cross-Sector
Luxembourg	StartupsVsCovid19	Challenge Programme	Healthcare
Luxembourg	Fit4Start	Accelerator	Healthcare
Netherlands	Hack the Crisis NL	Hackathon	Cross-Sector
Netherlands	Get in the Ring: First Responders	Challenge Programme	Healthcare
Netherlands	StartupInResidence: Alternative Food Challenge	Challenge Programme	Agriculture
Netherlands	Creative solutions approach to coronavirus	Grant Funding	Healthcare

Pan-European

	Initiative	Type	Sector
Pan-European	DeepHack: Data Against Covid-19	Hackathon	Data
Pan-European	#EUVSVIRUS	Hackathon	Healthcare
Pan-European	Data against Covid-19	Hackathon	Cross-Sector
Pan-European	Sentinel Hub Custom Script	Hackathon	Agriculture
Pan-European	EU Datathon (October 2020)	Hackathon	Data
Pan-European	COVID19 INSPIRE Hackathon	Hackathon	Agriculture
Pan-European	JEDI GrandChallenge: Billion Molecules Against Covid-19	Challenge Programme	Healthcare
Pan-European	EIT Urban Mobility Accelerator Programme	Accelerator	Data
Pan-European	EIC Accelerator pilot	Accelerator	Cross-Sector
Pan-European	EIT Headstart Programme	Accelerator	Healthcare
Pan-European	EIT Crisis Response Initiative - Venture Support	Grant Funding	Business Support
Pan-European	EIT Crisis Response Initiative -Innovation Activities	Grant Funding	Business Support
Pan-European	Space in Response to Covid-19: Announcement of Opportunity	Grant Funding	Healthcare

Nordics

	Initiative	Type	Sector
Denmark	Hack The Crisis Denmark	Hackathon	Cross-Sector
Denmark	Corona Innovation Fund	Grant Funding	Cross-Sector
Denmark	NordicBaltic.tech	Platform	Cross-Sector
Finland	Hack The Crisis Finland	Hackathon	Cross-Sector
Iceland	Covid-19 Tech Solutions	Platform	Cross-Sector
Norway	Hack The Crisis Norway	Hackathon	Cross-Sector
Norway	Hack The Crisis in the Barents Region	Hackathon	Cross-Sector
Norway	Call for Collaborative Covid-19 Projects	Challenge Programme	Healthcare
Sweden	Hack The Crisis Sweden	Hackathon	Cross-Sector
Sweden	Finding New Ways	Challenge Programme	Cross-Sector
Sweden	Urgent grants 2020 to secure access to data or research materials	Grant Funding	Cross-Sector

CEE

	Initiative	Type	Sector
Albania	Hack the Crisis Albania	Hackathon	Cross-Sector
Estonia	Hack The Crisis Estonia	Hackathon	Cross-Sector
Estonia	The Global Hack	Hackathon	Cross-Sector
Estonia	Nordic Remote Learning Solutions	Platform	Education
Estonia	Covid-19 Idea Bank	Platform	Cross-Sector
Hungary	Reload Hungary	Incubator	Healthcare
Latvia	Hackforce	Hackathon	Healthcare
Latvia	Skola 2030	Platform	Education
Lithuania	Hack The Crisis Lithuania	Hackathon	Cross-Sector
Lithuania	Covid-19 Innovation Fund	Challenge Programme	Healthcare
Lithuania	Startup Fair Pitch Battle	Pitch competition	Healthcare
Lithuania	There is No Quarantine on the Internet	Platform	Business Support
Poland	GovTech Polska Hackathon	Hackathon	Cross-Sector
Poland	NCBR Hackathon	Hackathon	Business Support
Poland	GovTech Festival	Hackathon	Cross-Sector
Serbia	Serbia's Innovation Fund	Grant Funding	Cross-Sector
Serbia	UNICEF Funding Opportunity for Blockchain Startups	Grant Funding	FinTech ,Business Support

DACH

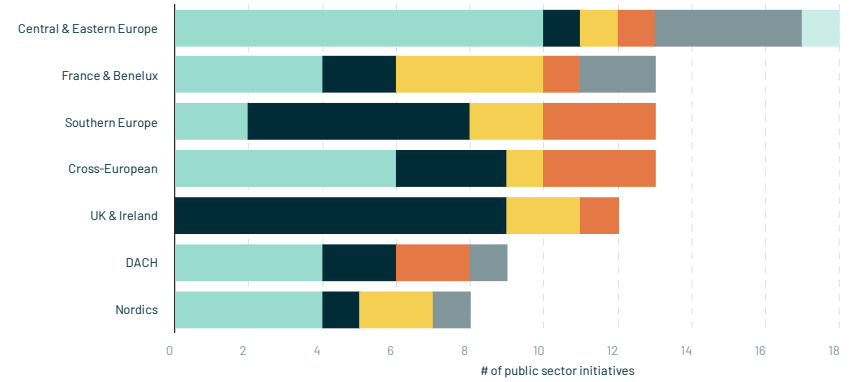
	Initiative	Type	Sector
Austria	Hack the Crisis Austria	Hackathon	Cross-Sector
Austria	Emergency Call Sars-CoV-2	Grant Funding	Healthcare
Germany	#WirVsVirus	Hackathon	Cross-Sector
Germany	#SmartDevelopmentHack	Hackathon	Cross-Sector
Germany	H+ Digital Health Innovation Program	Accelerator	Healthcare
Germany	Future Perfect Accelerator	Accelerator	Healthcare
Switzerland	#VersusVirus Hackathon	Hackathon	Cross-Sector
Switzerland	#CodeVsCovid19	Hackathon	Cross-Sector
Switzerland	Innosuise Innovation Project	Grant Funding	Healthcare

SOURCE: PUBLIC

NOTE:
The list was manually collected country by country using keyword searches, open data and PUBLIC's existing database of programmes for the UK, Nordics and Baltics.applied.

There are some interesting differences between regions. For example, Central and Eastern Europe have made a real push on initiatives, ranking first on absolute count. Governments across Europe (Estonia, Sweden, Norway, Poland, Austria, and Finland) have sponsored national hackathons - "Hack the Crisis" - designed to find urgent solutions to challenges created by Covid-19. This is interesting to note as it has largely taken place outside of the gaze of mainstream European tech attention. It is also worth noting the propensity within the UK to favour funding only support rather than a more holistic approach that also encompasses procurement and development support. NHSx sponsored TechForce19, a challenge-based programme to identify solutions across remote social care, mental health and the optimisation of staffing in the care sector. From a pool of 1600+ applicants, 18 companies were awarded £25k to deploy and scale their solutions.

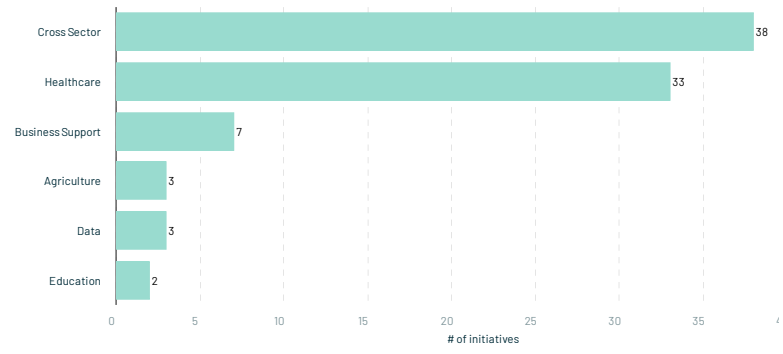
PUBLIC sector initiatives by region



SOURCE: PUBLIC

Given the unprecedented nature and scale of the Covid-19 pandemic, it won't come as a surprise that healthcare was one of the top sectors targeted by these initiatives.

Number of initiatives by sector



SOURCE: PUBLIC

Tendering and public procurement

Another way government can play a role in supporting the startup ecosystem is through contracting. Public procurement, the process by which governments purchase goods, services and works from the private sector, is a vast contributor to global spending and represents a colossal 12% of global GDP ($11T), according to the World Bank. The potential share to be won by tech start-ups, 'GovTech', is estimated to be $125B (€105B) in Europe, according to PUBLIC. As healthcare is now top of mind in light of the current pandemic, and with healthtech attracting over $4B of capital invested into European tech companies in 2020, it is interesting to explore the potential for those startups to tap into healthcare-related technology spending from government institutions. To try to shine a light on this, we partnered with Vamstar, the data science powered B2B healthcare marketplace platform that tracks and enriches contracting data published by public procurement bodies and private healthcare institutions. Although it is difficult to have data on tech start-ups more specifically, SMEs responding to health technology tenders is a helpful proxy to measure the direction of travel for the former.

Alexander de Carvalho
PUBLIC
Co-Founder and Chief Investment Officer

I hope that, looking to the future, governments will continue to harness the flexibility and resilience of start-ups that we've seen throughout the pandemic.

PUBLIC and Vamstar's research clearly demonstrates the unprecedented reliance by governments on the start-up ecosystem during the Covid-19 crisis. Never before has the public sector depended so heavily on new and innovative applications, developed by Europe's brightest tech entrepreneurs.

During this time, we have seen especially high numbers of initiatives coming out of governments, which are looking to quickly identify start-ups that can help to address their most critical challenges. These challenges, competitions and programmes have helped to drive the acceleration of technology adoption across the spectrum of public services.

Whether we look at the health care sector, which of course has been under great pressure, or to those areas of the public services landscape that are less prevalent in the public consciousness, such as social care and education, startups have been at the heart of finding new ways to deliver critical services.

Before the pandemic, the GovTech market, the start-ups and technologies driving the transformation of public services, was growing rapidly; entrepreneurs, investors and policy makers began to believe in the benefits in terms of cost, efficiency, and the positive impact on the lives of citizens.

The trends we've seen during COVID have validated this belief. I hope that, looking to the future, governments will continue to harness the flexibility and resilience of startups that we've seen throughout the pandemic. In doing so, I really believe that we'll see a positive transformation in the way that our public services are provided, and ultimately used, by citizens globally.

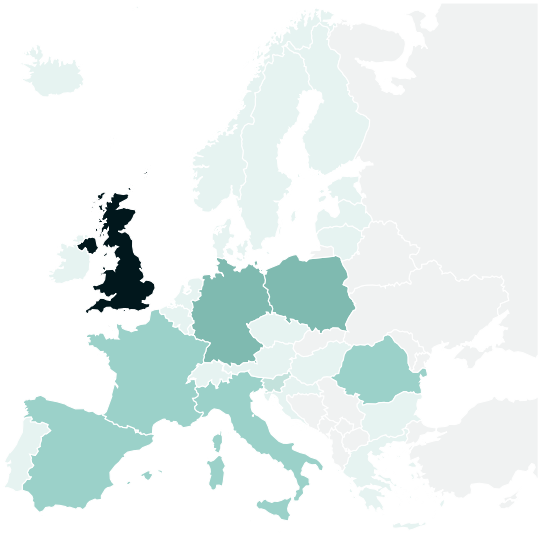
Slush 2019
Photo by: Julius Konttinen

Overall, there has been a steady rise in public contracting across European countries and Covid-19 has further accelerated that trend due to the need to manage a large demand shock. This was particularly the case in the UK: with the government dealing with the twin forces of Covid-19 and Brexit, healthcare spending has had a massive uplift.

Total healthcare spend in public contracting by country, H1 2020

LEGEND
- $1-5B
- $6-10B
- $11-15B
- 16B+

SCAN TO UNLOCK ADDITIONAL DATA



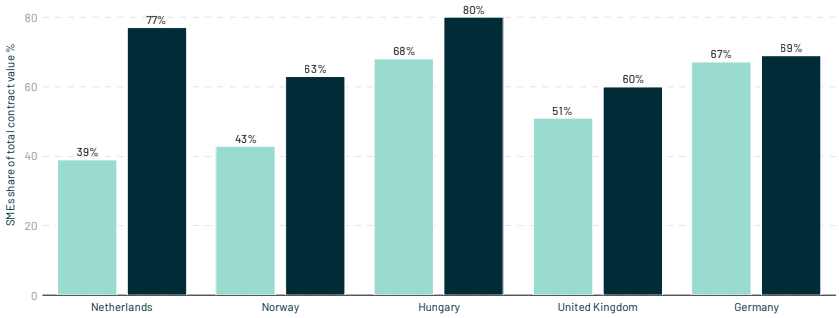
SOURCE: PUBLIC VAMSTAR

In Europe, SMEs play an important role in public procurement. One way governments have supported smaller firms is by introducing Covid-19-specific procurement rules. Although SMEs are a much broader category than startups, they are a helpful category to look at, as increased SME spending is likely to benefit tech startups as well. The results have varied by country and when comparing estimates for H1 2019 (pre-Covid-19) and H1 2020, there are some emerging "winners" for SMEs. The biggest "losers" are also a reminder that improving access to public procurement processes will unlock further value for SMEs and startups alike.

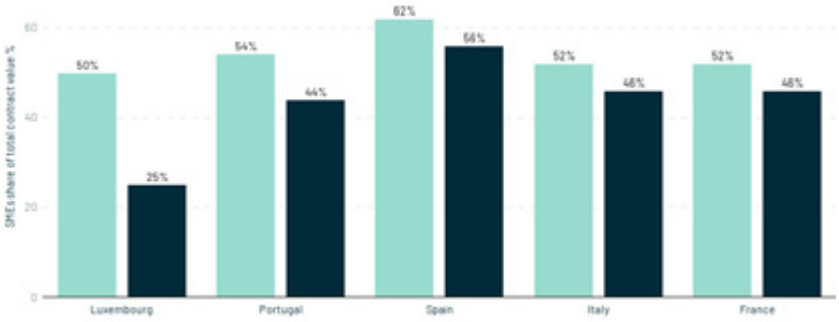
Estimated SMEs share of the total annual contract value for public healthcare procurement by country

LEGEND
- H1 2019
- H1 2020

Biggest Winners



Biggest Losers



SOURCE: PUBLIC VAMSTAR

Increase accessibility and visibility of upcoming tenders

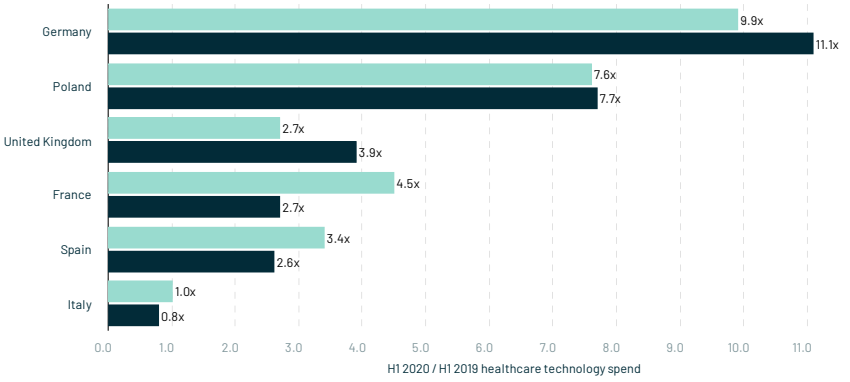
We currently have to browse through a lot of pages and it would be easier to view by timeframes as we need to go through several pages only to realise the deadline has passed. Marketing upcoming tenders more effectively would also enable us to rely less on consulting firms.

Anonymous survey respondent
Finland

- Drilling down on a few emerging areas of health technology, including digital health, remote patient monitoring, and patient tracing, the level of spend across these categories has significantly increased in Germany and Poland in H1 2020 versus 2019. In Germany and the UK, SMEs have not only gained market share over larger suppliers, they have significantly expanded contract value as well in absolute terms. In fact, German SMEs have expanded contract value by over 10x.

Healthcare technology spend expansion per country per type of supplier, H1 2020 vs. H1 2019

LEGEND
- Large supplier
- SME supplier



SOURCE: PUBLIC, VAMSTAR

To continue with digital transformation at pace, health systems need to find faster and clearer routes for effective innovations to be tested and adopted. Right now, there isn't a challenge spotting problems or building the technology to solve them, but knowing what to do next is where innovations stop. We need to move from a place where IT budgets are fixed, regardless of technological progress, to one where new solutions that create value across the system can be rapidly procured and adopted.

Decision making in healthcare systems is typically driven by risk rather than opportunity. In March, adopting new technology moved from being an opportunity to an imperative, as systems needed to be able to deliver care remotely and communicate more efficiently. Existing inefficiencies in the system were accentuated, and we've been fortunate to be able to help whilst accelerate our existing roadmap, rather than develop Covid-19-specific products.

We went from 50% of GP practices in England using us to 95% in the space of four weeks, and we rolled out six major new features in as many weeks. We were only able to do this because we let frontline staff pick software that works for them, set it up, and use it. This is not how software in healthcare is typically implemented, but we believe when the 'users are choosers', they'll consistently raise the bar, as the wider SaaS industry has shown.

To continue with digital transformation at pace, health systems need to find faster and clearer routes for effective innovations to be tested and adopted. Right now, there isn't a challenge spotting problems or building the technology to solve them, but knowing what to do next is where innovations stop. We need to move from a place where IT budgets are fixed, regardless of technological progress, to one where new solutions that create value across the system can be rapidly procured and adopted.

The innovations that have scaled and worked in 2020 have also been free from the AI/wearables/personalised medicine hype often seen in healthcare. That's not to say these technologies won't play a role in the future, but healthcare systems are currently decades behind. Particularly in times of crisis, staff value software that makes their day easier and just works. That's what we need a lot more of.

Jacob Haddad
accuRx
Co-Founder

Measuring policy focus in Europe

Last year's report identified a number of opportunities for improved collaboration between policymakers and the European tech community. This year's report explores change in these areas, based on the results of the State of European Tech Survey as well as POLITICO Pro Intelligence's analysis of the activities of the European Parliament (the legislative branch of the European Union).

For reference, the table below describes the type of data used throughout the analysis shared by POLITICO Europe. Activities and press releases provide a sense of what is being talked about and the responses to those discussions. Legislative documents, on the other hand, reveal what makes it into draft policies.

Overview of European Parliament data

NOTE:

We look at the number of keyword occurrences relating to a set of selected technology-related topics in the European Parliament.

	Information Type	Description	Why Is It Useful?
1	Activities	This data looks specifically at keywords occurrences in parliamentary questions, speeches and debates made by elected legislators.	Activities are a good proxy for the prevalence of selected technology-related discussions taking place at the EP.
2	Press releases	This data focuses on keywords occurrences in commentaries and responses from the various agencies and other moving parts of government.	Press releases are a proxy for the response of the EP to these discussions and the communication back to the public. This should translate into greater awareness of the issues at hand (and proposed solutions) of the public.
3	Legislation	This data looks at the number of keywords occurrences related to legislative documentation, which relates to the ongoing process of law making, actual bills, procedures, etc.	Legislation is a proxy for the 'outcome' of 'activities', as it takes discussions a step further into the process of law making.

Topics and corresponding search terms

	Topic / Keywords	Search Terms
1	Artificial Intelligence	artificial intelligence
2	Autonomous vehicles / mobility	autonomous vehicles, autonomous vehicle, self driving cars, driverless, autonomous driving
3	Blockchain / Crypto	cryptocurrency, crypto-currency, blockchain, bitcoin, ethereum
4	Brexit	brexit
5	Capital gains taxation	capital gains
6	Content & Copyright	copyright
7	Covid-19	covid-19, covid19, pandemic, coronavirus, health crisis
8	Cybersecurity	cybersecurity, data breach
9	Dataprivacy / GDPR	data privacy, gdpr, general data privacy regulation, data protection
10	Digital health	ehealth, e-health, digital health, digital healthcare
11	Digital Services Act	digital services act
12	Digital Single Market	digital single market
13	Digital tax	digital tax, digital taxation
14	Digital Transformation	digital transformation, digital age
15	Disinformation / deepfakes	disinformation, deepfakes, deepfake
16	Drones	drones, uav, unmanned aerial vehicle
17	European Startups	european startup, startup
18	Fintech	fintech, financial technology
19	Genome editing	crispr
20	Green Deal	climate crisis, green deal, sustainable economy, european climate law
21	Platform workers / gig economy	platform workers, gig economy, zero hours contract
22	Quantum computing	quantum computing, quantum computer
23	Research and innovation framework	horizon 2020, research and innovation framework
24	Stock options	stock options, employee ownership, share options
25	US Big Tech companies	google, youtube, amazon, facebook, instagram, whatsapp, apple, twitter, netflix, airbnb, ebay, microsoft

SOURCE: POLITICO PRO INTELLIGENCE

Unsurprisingly, Covid-19 has dominated much of the European Parliament's attention in 2020 and has dwarfed almost every other topic over the past year. Looking beyond Covid-19, the Green Deal has also been discussed prominently in European Parliament activities and press releases. The topic of US Big Tech companies remains high on the discussion agenda, still ranking above Brexit in terms of volume of mentions, despite the imminent exit of the UK from the European Union.

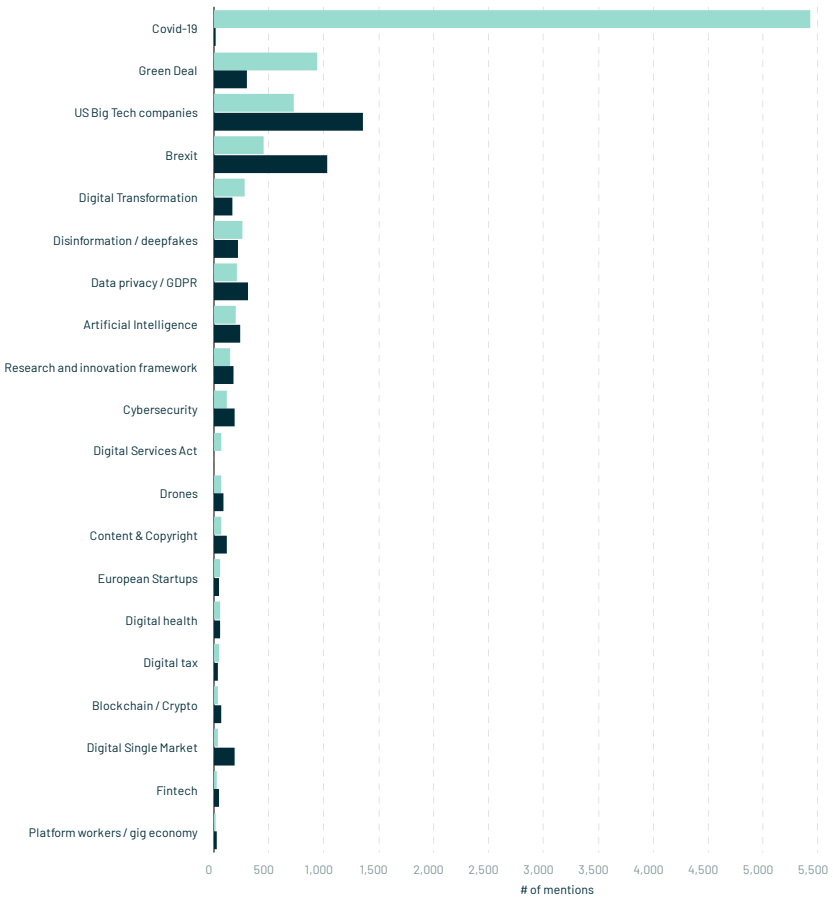
Top 20 key topics in European Parliament by number of mentions in activities and press releases

LEGEND

- 2020
- 2019

NOTE:

This data looks at the number of keyword occurrences related to key tech topics in European Parliament activities and press releases. Data as of 10 November 2020.



SOURCE: dealroom.co

The shifting focus of the new European Parliament administration is reflected in the downward trend of keyword occurrences around US Big Tech companies and Brexit, suggesting that these topics have slipped down the policy agenda.

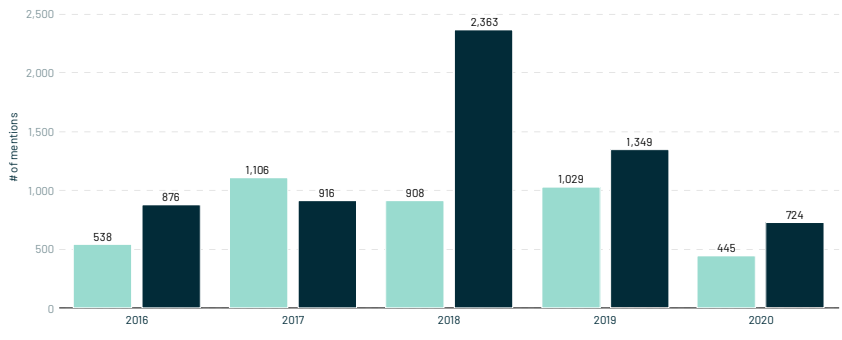
Number of mentions of US Big Tech companies or Brexit in European Parliament activities and press releases per year

LEGEND

- Brexit
- US Big Tech companies

NOTE:

This data looks at the number of keyword occurrences related to Brexit and US Big Tech companies in European Parliament activities and press releases. Data as of 10 November 2020.



SOURCE: POLITICO PRO INTELLIGENCE

In 2020, Europe's digital transformation strategy has become a point of focus. To this end, the European Commission is working across three key areas: technology, a competitive and fair digital economy, and lastly, an open, democratic and sustainable society. Data privacy discussions have decreased following the implementation of the GDPR in May 2018, and the focus has shifted to artificial intelligence, with the regulatory framework on ethical AI in the making.

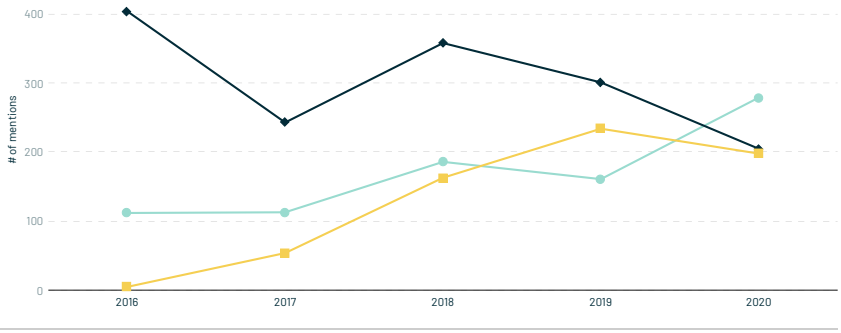
Number of mentions of Digital Transformation, Artificial Intelligence or GDPR in European Parliament activities and press releases per year

LEGEND

- Digital Transformation
- Data Privacy / GDPR
- Artificial Intelligence

NOTE:

This data looks at the number of keyword occurrences related to Digital Transformation, Artificial Intelligence and Data privacy / GDPR in European Parliament activities and press releases. Data as of 10 November 2020.



SOURCE: POLITICO PRO INTELLIGENCE

Eric Hazan
McKinsey
Senior Partner

For Europe, achieving a global leadership on AI will require pulling all necessary levers to unleash innovation-led growth, ease transitions in the skillset of the workforce and foster technology adoption and diffusion.

While China and the United States have been moving forward with determination on the AI front, Europe has the resources at its disposal to keep pace. The continent boasts cutting-edge education and research capabilities; it has more professional developers than the US and is home to 1/3 of high-quality research publications on AI. For Europe, achieving a global leadership on AI will require pulling all necessary levers to unleash innovation-led growth, ease transitions in the skillset of the workforce and foster technology adoption and diffusion. We estimate that if only 9 European "digital front-runners" countries were to adopt AI at scale, the potential economic impact could be as high as €42 billion annually (or 1.4% of GDP).

After much talk about US Big Tech Companies over the past five years, the European Commission is expected to deliver a new piece of regulation by the end of 2020 as a response to its concerns about building a competitive and fair digital economy. The newly-christened Digital Services Act ("DSA") regulation is expected to be one of the largest regulatory overhauls of the digital economy. The EU is preparing a "blacklist of behaviours" and is expected to narrow down the use that "gatekeepers" can make of the data they collect, as well as limit the preferential treatment their own services enjoy on their sites or platforms. Unsurprisingly, the discussions around the DSA are now picking up steam in European Parliament activities and press releases.

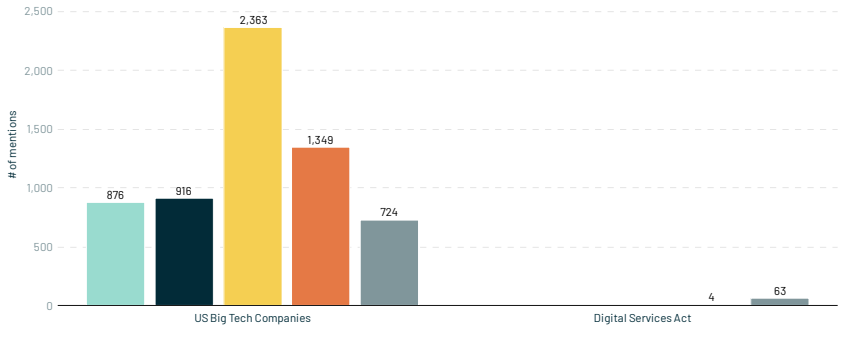
Number of mentions of the DSA and US Big Tech Companies in European Parliament activities and press releases per year

LEGEND

- 2016
- 2017
- 2018
- 2019
- 2020

NOTE:

This data looks at the number of keyword occurrences related to US Big Tech companies and the DSA in European Parliament activities and press releases. Data as of 10 November 2020.



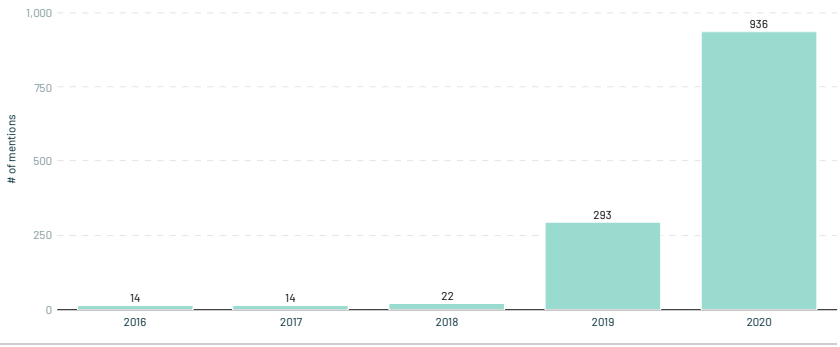
SOURCE: POLITICO PRO INTELLIGENCE

The administration's new focus on sustainability and, more specifically, climate, is noteworthy. The Commission's "European Green Deal" aims to make the European Union the first continent to become climate neutral by 2050 and is considered by European Commission President, Ursula von der Leyen, to be a European "moonshot". The scale of the projected investment needed to finance the Green Deal - more than €1 trillion - has the potential to be an important catalyst for purpose-driven European tech entrepreneurs focused on tackling climate issues.

Number of mentions of the Green Deal in European Parliament activities and press releases per year

NOTE:

This data looks at the number of keyword occurrences related to the Green Deal in European Parliament activities and press releases. Data as of 10 November 2020.



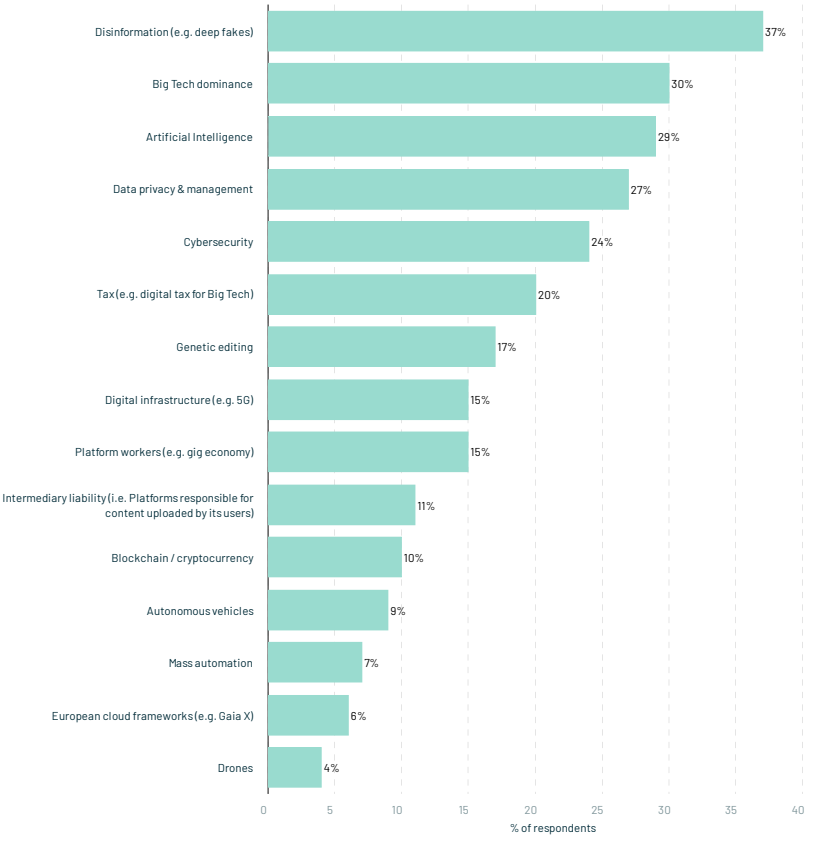
SOURCE: POLITICO PRO INTELLIGENCE

Under the Juncker Commission, 30 legislative proposals on the Digital Single Market were made, of which 28 have been agreed. The two proposals that have not yet been ratified pertain to "strengthening trust" and the EU's capacity to respond to cyberattacks. The importance of moving forward on these two proposals is underpinned by responses to the State of European Tech survey. When asked to identify up to three areas requiring urgent attention from regulators given their potential impact on society, disinformation, cybersecurity and data privacy were all ranked highly by respondents. Interestingly, the role of Big Tech companies also featured high amongst survey respondents.

In your opinion, which areas in tech require urgent attention from regulators as they are likely to be most impactful for society (in a good or bad way)?

NOTE:

Respondents were able to select up to three responses for this question.



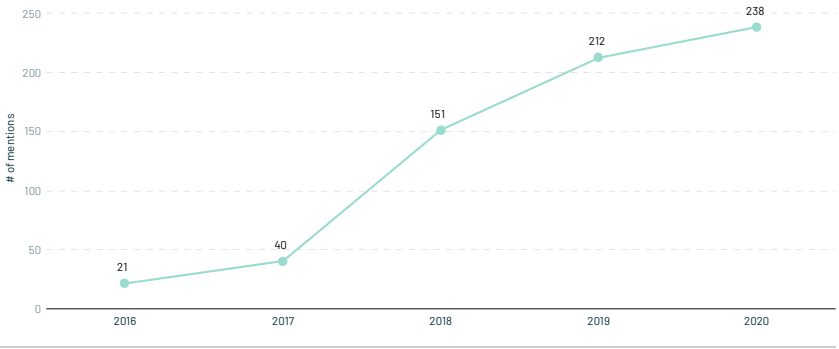
SOURCE: The State of European Tech Survey

> The EU should go beyond patching existing frameworks and bolstering effective enforcement. The increased use of AI systems, in particular, suggests that the EU's regulatory vision must expand to include tech's impact on discrimination and socioeconomic inequities. Rather than retreating or "sheltering in place," now is the moment for the EU to translate the "new possible" of a post-pandemic world to its digital ambitions.

Corinne Cath-Speth
Oxford Internet Institute
DPhil student

- The huge increase in mentions of keywords related to disinformation is a reflection of the growing concern around the topic. This policy area is likely to form part of the third pillar of the EU's digital transformation strategy to protect an open, democratic and sustainable society, given the perceived threat of coordinated disinformation activities to democratic institutions.

Number of mentions of Disinformation / Deepfakes in European Parliament activities and press releases per year



SOURCE: POLITICO PRO INTELLIGENCE

NOTE:

This data looks at the number of keyword occurrences related to Disinformation / Deepfakes in European Parliament activities and press releases. Data as of 10 November 2020.

- An analysis of the top 20 topics across the 2015-2019 and 2020 periods shines a light on the two administrations' differing priorities. Notably, mentions of the Digital Single Market have faded quickly. These changes will continue to materialise over the following year, especially if and when the focus can move on from responding to the Covid-19 pandemic.

Top 20 key topics in European Parliament activities and press releases, 2015-2019 versus 2020

	2015-2019	2020
1	US Big Tech companies	Covid-19
2	Brexit	Green Deal
3	Data privacy / GDPR	US Big Tech companies
4	Research and innovation framework	Brexit
5	Digital Single Market	Digital Transformation
6	Cybersecurity	Disinformation / deepfakes
7	Content & Copyright	Dataprivacy / GDPR
8	Digital Transformation	Artificial Intelligence
9	Disinformation / deepfakes	Research and innovation framework
10	Artificial Intelligence	Cybersecurity
11	Green Deal	Digital Services Act
12	Drones	Drones
13	Blockchain / Crypto	Content & Copyright
14	Digital health	European Startups
15	European Startups	Digital health
16	Fintech	Digital tax
17	Autonomous vehicles / mobility	Blockchain / Crypto
18	Digital tax	Digital Single Market
19	Platform workers / gig economy	Fintech
20	Genome editing	Platform workers / gig economy

SOURCE: POLITICO PRO INTELLIGENCE

NOTE:

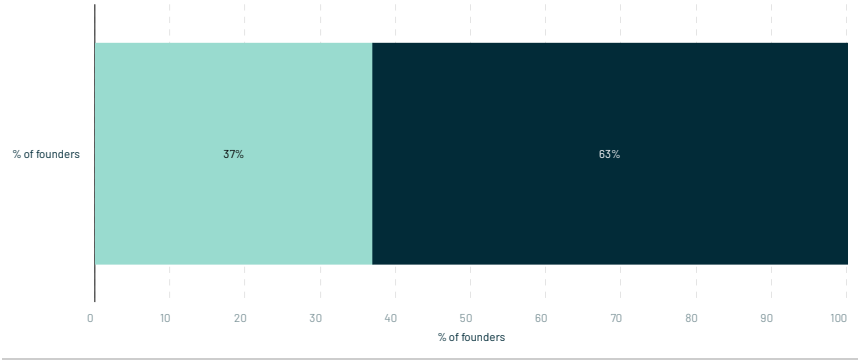
This data looks at the number of keyword occurrences related to key tech topics in European Parliament activities and press releases. Data as of 10 November 2020.

This year, the survey included specific questions to gather targeted and actionable insights from respondents on the European Commission's strategy. One area of focus was the upcoming Research and Innovation Framework (Horizon Europe). This programme is meant to deliver up to €100B of spending on Research and Innovation in the European Union and set to launch in 2021. Despite its scale and potential impact, almost two-thirds (65%) of survey respondents are unaware of its existence. Amongst founder respondents to the survey, only one in three (37%) said they were aware of the programme, though they are one of the most important intended recipient groups of the huge-scale spending plan.

Are you aware of the upcoming research and innovation framework program of the European Commission, Horizon Europe?

LEGEND

- Yes
- No



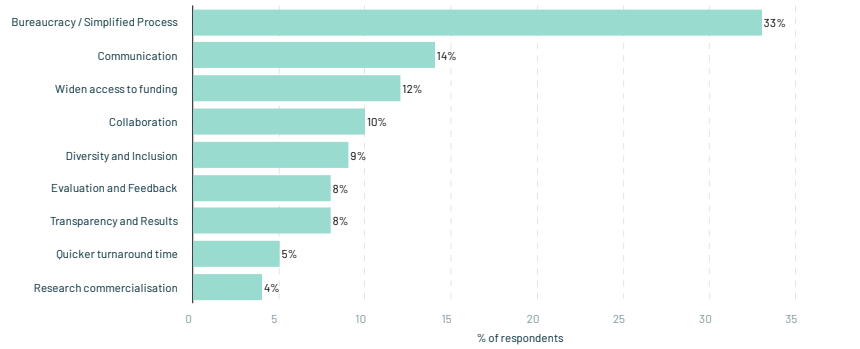
SOURCE: The State of European Tech — Survey

The survey also asked respondents to optionally provide feedback for the European Commission on how to improve the efficacy of their programmes and yielded more than 670 responses. A keyword analysis of these responses highlights that eliminating perceived bureaucracy and complexity from the process to access Research & Innovation funding is by far the most frequently recommended improvement. The second most recommended step is to inform and communicate around these programmes more effectively. Additionally, widening access to funding is another common recommendation that relates, in particular, to tender requirements that are perceived to exclude many potential participants. Finally, it is worth noting that a meaningful number of survey respondents felt that the evaluation process could benefit from having a more diverse group of experts and investment professionals.

What would you recommend the European Commission do to improve the efficiency and effectiveness of its research and innovation programs?

NOTE:

Based on text analysis of 670 respondents - some respondents provided multiple recommendations for this question. Please interpret the data with this in mind.



SOURCE: The State of European Tech — Survey

Generally: we need better explanations.
I am informing myself about a lot of the regulatory pieces, and I know about most of it. But you have to really search for it, it is not like you are getting the information easily. Also, I feel that the start-up economy is not a top priority of the EU. For example, Macron is doing a lot to boost France's start-up economy and also publicly. Not a lot of high-level European politicians are actively lobbying or even publicly caring about startups (except for the ones who can almost be compared to corporates regarding their size).

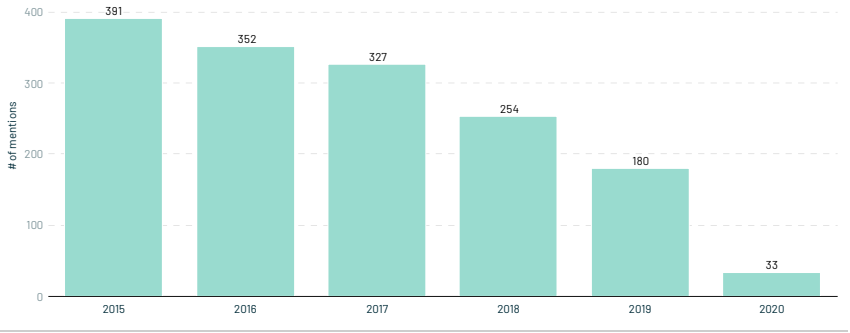
Anonymous Respondent
(SME, Germany)

- Similarly, the Digital Single Market ("DSM"), a key priority for the Juncker Commission (2014-2019) to drive a digitally connected Europe has become less of a priority given a series of measures are either now in force or in the process of being implemented.

Number of mentions of the DSM in European Parliament activities and press releases per year

NOTE:

This data looks at the number of keyword occurrences related to the DSM in European Parliament activities and press releases.



SOURCE: POLITICO PRO INTELLIGENCE

The EU data economy will not flourish under the present DSM directive.
EU only has a small share of the world data economy and the EU is the only jurisdiction where text and data mining is an act relevant to copyright. In the US and Asia, copyright protects the artistic or literary form, not the information embedded in works. The EU commission should change the DSM directive to allow text and data mining, that is extracting information from works, without the present restrictions. The EU data economy will not flourish under the present DSM directive and this makes commercialisation of research results difficult in Europe. Startups based on EU funded research involving data science have to move to the US or Asia.

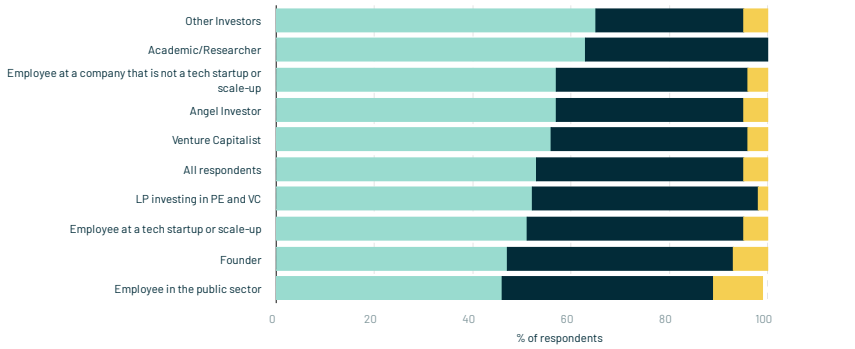
Anonymous Respondent
(Public sector, Finland)

The EU took a series of measures designed to help build a DSM such as the free flow of non-personal data, digital content and services, copyright, platform-to-business relations, and geo-blocking. The survey asked respondents to state whether they agreed or not that these measures had been positive overall for the growth of tech startups and scaleups in Europe. The majority of respondents agree these measures have had a positive impact overall, while only 5% of total respondents disagreed. About 40% neither agreed nor disagreed.

Would you say that overall, these measures are positive for the growth of tech start-ups and scale-ups in Europe?

LEGEND

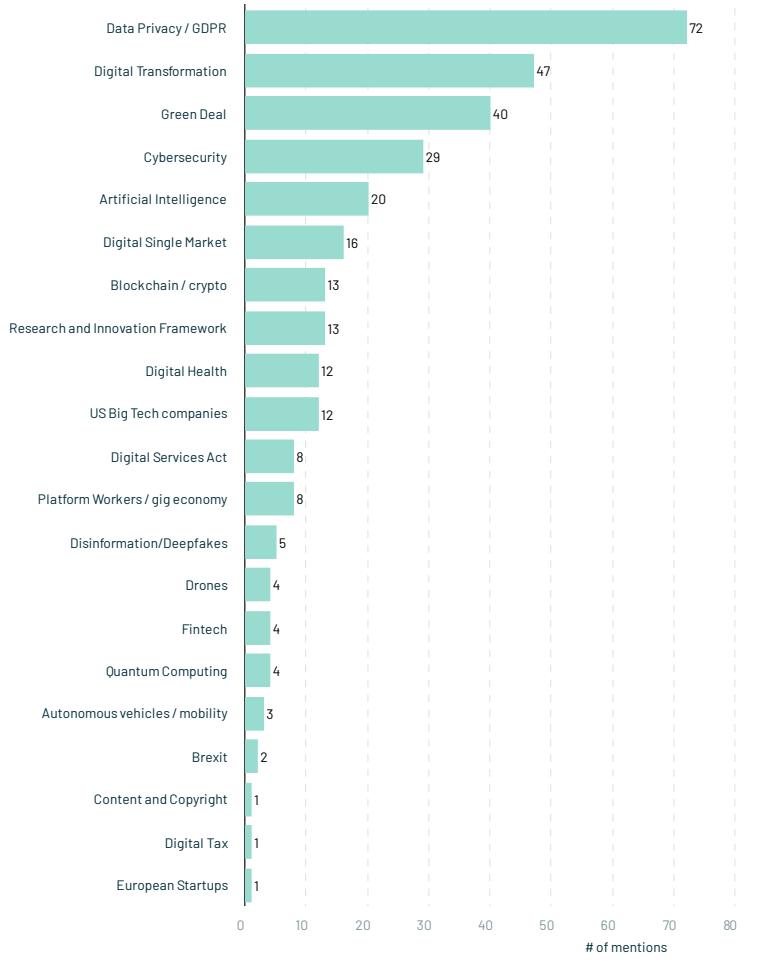
- Agree
- Neither
- Disagree



SOURCE: The State of European Tech Survey

Overlaying the analysis of European Parliament activities and press releases with the focus areas of legislative documentation provides a proxy for actual policy outcomes. GDPR and the DSM are more prevalent, while Disinformation and Deepfakes are much less frequently mentioned in legislative documents. Digital Transformation and the Green Deal feature high on the list.

Number of mentions of key tech-related issues in European Parliament legislative documents by topic, 2020



SOURCE: POLITICO PRO INTELLIGENCE

NOTE:

This data looks at the number of keyword occurrences of key tech-related issues in European Parliament legislation. Data as of 10 November 2020.

From Founders and tech company employees to VCs, disinformation is cited most frequently by survey respondents as an area requiring urgent attention, showing the urgency to devote attention to this particular challenge. We can expect to see this become more of a focus point for the European Commission with the announcement in September of an extensive review of the "Code of Practice" aimed at fighting the spread of disinformation online, first introduced in 2018. The Commission agrees more efforts are needed to address the current shortcomings of these self-regulatory measures.

In your opinion, which areas in tech require urgent attention from regulators as they are likely to be most impactful for society (in a good or bad way)? Top choice by occupation

NOTE:

Respondents were able to select three responses for this question and we are presenting their top choice by occupation.

	Highest Urgency
Employee at a company that is not a tech startup or scale-up	Disinformation (43%)
Media / Journalist	Disinformation (43%)
Employee at a tech startup or scale-up	Disinformation (38%)
Founder	Disinformation (37%)
Venture Capitalist	Disinformation (36%)
Other Investor	Disinformation (36%)
Consultant / M&A Advisor / Investment Banker	Cybersecurity (34%)
Student	Data privacy & management (45%)
Academic / Researcher	Data privacy & management (30%)
Angel Investor	Big Tech dominance (36%)
LP investing in PE and VC	Big Tech dominance (34%)

SOURCE: The State of European Tech Survey

The areas requiring urgent attention varied according to the home country of the survey respondents. Disinformation ranked top in most countries, though artificial intelligence and Big Tech dominance also topped the ranks in certain countries.

In your opinion, which areas in tech require urgent attention from regulators as they are likely to be most impactful for society (in a good or bad way)?

LEGEND

up to 49 | 34 to 39 | 25 to 29 | 15 to 20 | 5 to 10
39 to 44 | 29 to 34 | 20 to 25 | 10 to 15 | up to 5

France, Benelux, Southern Europe and UK

	France	Belgium	Netherlands	Portugal	Italy	Spain	UK	Switzerland
Disinformation (e.g. deep fakes)	39	37	29	49	34	26	42	31
Big Tech dominance	25	35	43	26	34	25	32	16
Artificial Intelligence	24	26	37	30	22	31	26	28
Data privacy & management	29	35	29	28	29	33	26	33
Cybersecurity	25	16	23	23	33	23	22	33
Tax (e.g. digital tax for Big Tech)	22	16	24	21	25	24	22	22
Genetic editing	17	16	11	23	19	19	17	28
Platform workers (e.g. gig economy)	18	14	12	19	6	16	18	15
Digital infrastructure (e.g. 5G)	18	26	16	12	19	13	12	13
Intermediary liability (i.e. Platforms responsible for...	7	19	6	19	10	10	15	7
Blockchain / cryptocurrency	14	16	6	16	22	14	9	7
Autonomous vehicles	8	9	6	9	4	10	6	12
Mass automation	5	0	5	2	6	8	8	3
European cloud frameworks (e.g. Gaia X)	19	9	4	2	5	7	3	12
Drones	3	0	3	7	4	7	3	1

DACH, Nordics, CEE and Baltics

	Austria	Germany	Denmark	Finland	Norway	Sweden	Estonia	Poland
Disinformation (e.g. deep fakes)	38	35	39	37	32	32	27	50
Big Tech dominance	23	34	33	23	40	30	32	24
Artificial Intelligence	33	30	46	29	26	34	41	37
Data privacy & management	25	20	26	31	30	30	24	21
Cybersecurity	28	19	29	24	32	25	22	34
Tax (e.g. digital tax for Big Tech)	35	20	16	16	28	16	19	13
Genetic editing	15	16	14	15	16	14	14	26
Platform workers (e.g. gig economy)	8	13	9	15	12	15	11	11
Digital infrastructure (e.g. 5G)	23	31	11	7	10	18	11	11
Intermediary liability (i.e. Platforms responsible for...	10	9	10	10	8	9	8	5
Blockchain / cryptocurrency	18	8	7	9	10	9	16	11
Autonomous vehicles	15	15	4	12	4	6	16	11
Mass automation	3	9	4	5	10	7	11	8
European cloud frameworks (e.g. Gaia X)	10	8	3	7	6	9	11	5
Drones	3	4	4	5	3	4	0	8

NOTE:
Respondents were able to select up to three responses for this question.

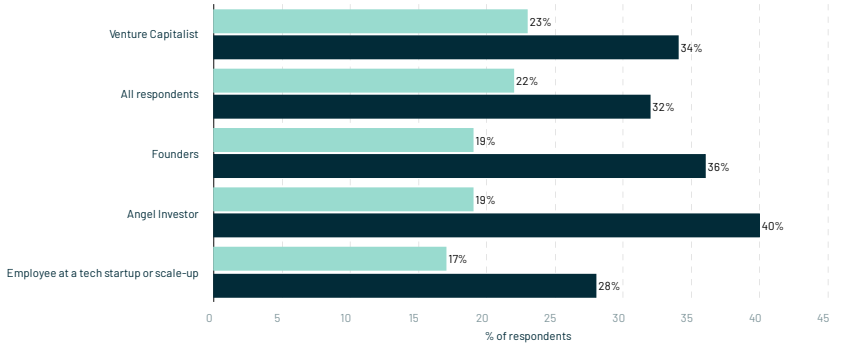
SOURCE: The State of European Tech Survey

There is clearly still work to be done to build bridges between European start-ups and scale-ups and European policymakers. The number of survey respondents agreeing that the perspectives of start-ups and scale-ups are being heard by European policymakers is still significantly outweighed by the number that disagree. Founders are nearly two times as likely to disagree with the statement than they are to agree.

The concerns and perspectives of start-ups and scale-ups are being heard by European policymakers

LEGEND

- Agree
- Disagree



SOURCE: The State of European Tech Survey

Thomas Plantenga
Vinted
CEO

There's a way to go until Europe has the right environment to keep pace with tech elsewhere in the world, and more needs to be done by regulators and policymakers to protect competitive dynamics and help foster European tech champions.

There are definitely reasons for optimism, not least as the European tech ecosystem is still evolving and improving in a number of ways. For one, people are moving back from established tech businesses in the USA and bringing great skills and strong experience with them. And, funding opportunities are improving; while there's still far more value being created in the US and China than in Europe, investors from the USA and elsewhere are also looking this way. Even during the first half of 2020 when so much was unknown, we saw some impressive investment news coming from European firms. However, there's a way to go until Europe has the right environment to keep pace with tech elsewhere in the world, and more needs to be done by regulators and policymakers to protect competitive dynamics and help foster European tech champions. In particular, we would welcome greater harmonisation of laws and regulations between the Member States of the European Union.

William Echikson
Centre for European Policy Studies
Associate Senior Research Fellow and Head of Digital Forum

[Europe] should avoid turning a call into Digital Sovereignty into a self-defeating effort to protect European champions, impose data localisation and build a "European" cloud. Its upcoming Digital Services Act should set new standards of responsibility for Big Tech, without hindering European access to new technologies or imposing costs which force ambitious entrepreneurs to flee.

Europe can do tech. Although the Old Continent is often viewed as a digital laggard, running far behind the frontier-pushing United States and Asia, the appearance is deceiving. Start-ups are strengthening. Venture capital is flourishing. Gone are the days when Europe's "tech" sector largely comprised consumer-oriented e-commerce businesses – often blatant knockoffs of successful US companies. Today, Europe is home to pioneering innovation, led by real successes in fintech and digital health. Looking forward, the continent needs to be careful to avoid jeopardising this success through overregulation or protectionism. It should avoid turning a call into Digital Sovereignty into a self-defeating effort to protect European champions, impose data localisation and build a "European" cloud. Its upcoming Digital Services Act should set new standards of responsibility for Big Tech, without hindering European access to new technologies or imposing costs which force ambitious entrepreneurs to flee.

It is critical that policymakers engage deeply with the ecosystem to understand their needs, and vice versa. The needs of any given European tech start-up differ significantly based on where the company is in its scaling journey. Effective policy understands and addresses these differences. For example, as companies scale, accessing and tapping into the incredible talent pool Europe benefits from becomes very material. As such enabling harmonised and simplified immigration procedures across Europe has the potential to unlock material value for companies. At the earliest stages of a company's journey, incentivising talent to join is crucial and represents another area where regulation could play an important role.

What is one regulatory change that would have a materially positive impact on the prospects of your business?

LEGEND

- Simplified immigration / visa procedures
- Simplified employment regulations
- Better taxation of employee stock options

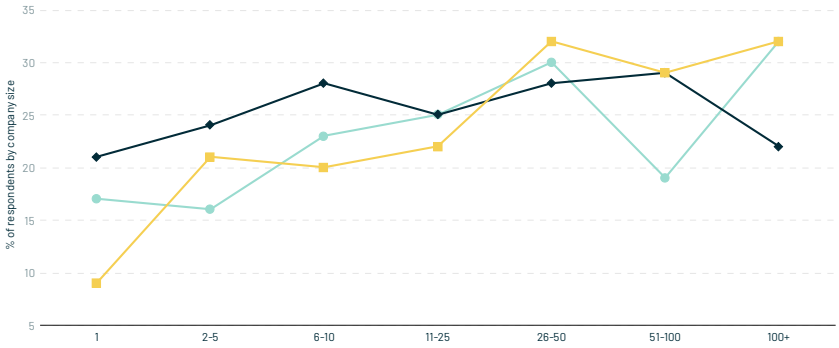
LEGEND

- More favourable capital gains taxation across Europe
- More harmonised corporate tax rates across Europe

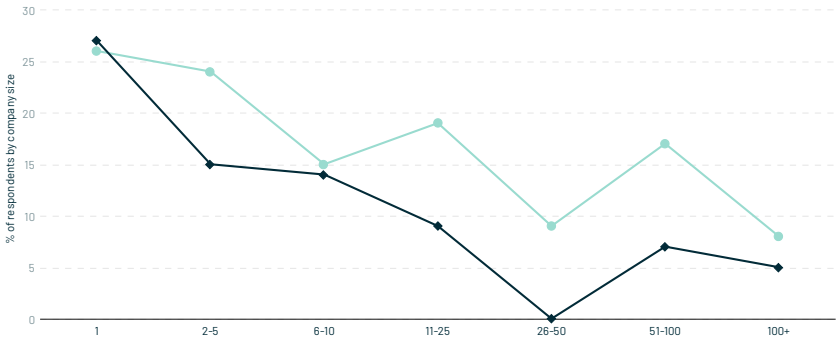
NOTE:

The x-axis refers to the number of employees in the respondent companies.

Increased importance with scaling



Decreased importance with scaling



SOURCE: The State of European Tech Survey

The persistence of regulatory fragmentation across Europe is cited by the largest number of respondents across all company sizes when asked to highlight the main regulatory hurdles or issues limiting the growth of startups and scale-ups in Europe compared to other large markets, such as the US and China. Funding limitations and over-regulation generally were also commonly cited by respondents.

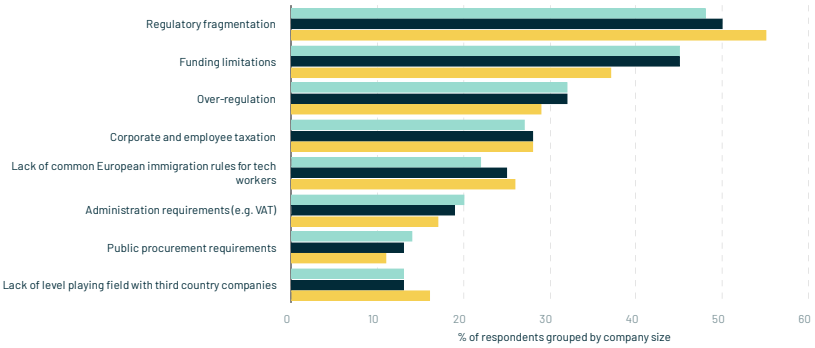
To date, what are the main regulatory hurdles or issues limiting the growth of start-ups and scale-ups in Europe compared to other large markets like the US and China?

LEGEND

- <10 employees
- 11-100 employees
- > 100 employees

NOTE:

Respondents were able to select up to 3 responses for this question.



SOURCE: The State of European Tech Survey

State of European Tech 2020 report launch

08 About

Who is behind the report?

This report was produced in partnership with Slush and Orrick. Over 70 people and over 20 companies and organizations came together to provide insights and data. This is who they are.

08.1
Contributors

Thanks to all of the following people for their assistance and insight in developing this year's State of European Tech Report.

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La French Tech

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EQT

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Gulnaz Khusainova
Easysize

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Pale Blue Dot

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Sequoia

Ed Lukins
Orrick

Ken MacAskill
Snyk

Sebastian Matthes
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Future Females

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MessageBird

Agathe Wautier
Galion Project

Meri Williams
Healx

Nina Wöss
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Jeannette zu Fürstenberg
La Famiglia

08.2
Acknowledgements

We wouldn't have been able to put together the State of European Tech without a lot of help - thanks to all of the following in particular:

Jordi Arcas
TalentUp

Karl Bjelland
POLITICO Europe

Anna Brchisky
Slush

Jon Brewer
Orrick

Orla Browne
Dealroom

Seb Butt
Craft

Joe Cainey
Peakon

Daniel Cavallari
Dealroom

George Clayton
GoodLove

Lewis Dean
Indeed

Katelyn Dennis
Shareworks by Morgan Stanley
(Option Impact)

Ivan Draganov
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Vishesh Duggar
Vamstar

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Vamstar

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SVB

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Linda Griffin
EU Tech Alliance

Sarah Guemouri
Atomico

Keaton Hoffman
Aon

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CBRE

Miika Huttunen
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Elmo Pakkanen
Slush

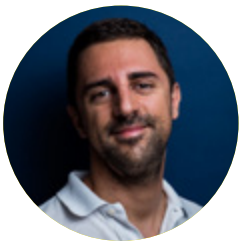
Angelina Panagiotopoulou
GoodLove

Erin Platts
SVB

Julien Puls
Dealroom

Ram Puvinathan
Public

Arabella Reeves
Atomico



Matteo Renoldi
Dealroom

Karl Laurentius Roos
POLITICO Europe

Neil Shah
London Stock Exchange Group

Maxine Smith
Atomico

David Toms
Hg

Eleanor Warnock
Atomico

Sam Warren
Horsley Bridge Partners

Tom Wehmeier
Atomico

Yoram Wijngaarde
Dealroom

James Young
Peakon

Henna Zamurd-Butt
Engage Inclusivity

Mitch Zuklie
Orrick

The purpose-driven porpoise
Working remotely somewhere

08.3

About Atomico

Partners to Gamechangers. 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 Supercell, Graphcore, Omio, Klarna, Lilium, MessageBird, Gympass, Pipedrive and The Climate Corporation. Atomico's team of founders, investors and operational leaders have been responsible for global expansion, hiring and marketing at companies from Skype, Google and Twitter to Uber and Spotify. The firm currently has $2.7B in assets under management.

08.4

About Slush

Slush is a student-driven, not-for-profit movement originally founded to change attitudes toward entrepreneurship.

What started as a gathering of 300 local founders in 2008, has become a community of true global magnitude. The mission of Slush remains the same: to create and help the next generation of groundbreaking entrepreneurs.

08.5

About Orrick

Creators. Visionaries. Underdogs. The Daring.

Orrick counsels more than 2,700 tech companies, as well as the most active funds, corporate venture investors and public tech companies worldwide. We help you disrupt. We help you build. We protect you. We help you win.

We are the No. 1 most active law firm in European venture capital and No. 4 globally (PitchBook), top 20 for global M&A and PE (Mergermarket) and advisors to seven of the top 15 global private equity funds. We offer destination practices in other areas that are important to tech companies' success: privacy and cybersecurity, intellectual property, payments, and beyond.

And we innovate not only in our legal advice but also in the way we deliver our services. That's why Financial Times has named us the most innovative law firm in North America for three years in a row and runner up in 2019.

08.6

About Silicon Valley Bank

For more than 35 years, Silicon Valley Bank (SVB) has helped innovative companies and their investors move bold ideas forward, fast. SVB provides targeted financial services and expertise through its offices in innovation centers around the world. With commercial banking and lending services, SVB helps address the unique needs of innovators.

Silicon Valley Bank is registered in England and Wales at Alphabeta, 14-18 Finsbury Square, London EC2A 1BR, UK under No. FC029579. Silicon Valley Bank is authorised and regulated by the California Department of Financial Protection and Innovation (DFPI) and the United States Federal Reserve Bank; authorised by the Prudential Regulation Authority with number 577295; and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request.

08.7

About GoodLove

GoodLove is a creative brand consultancy based in London.

GoodLove helps businesses that are on a mission to scale belief in what they're doing through ideas, narratives and visual storytelling. GoodLove's consultancy proposition combines strategic rigour with creative flair and has been designed to serve fast-moving businesses in the startup community.

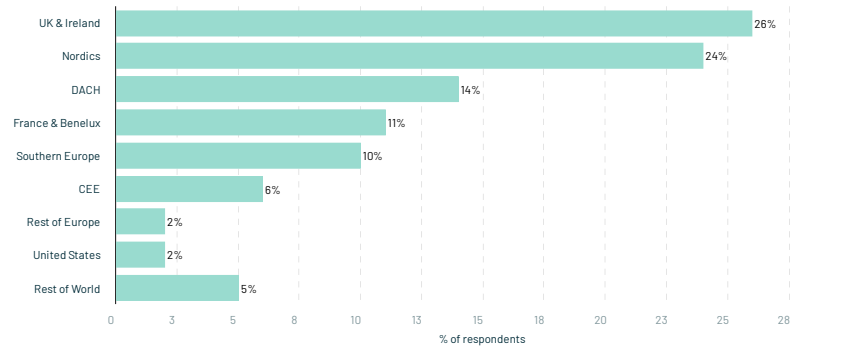
Find out more at goodlove.co

09

Resources

09.1
Survey Respondents

What is your primary country of residence?

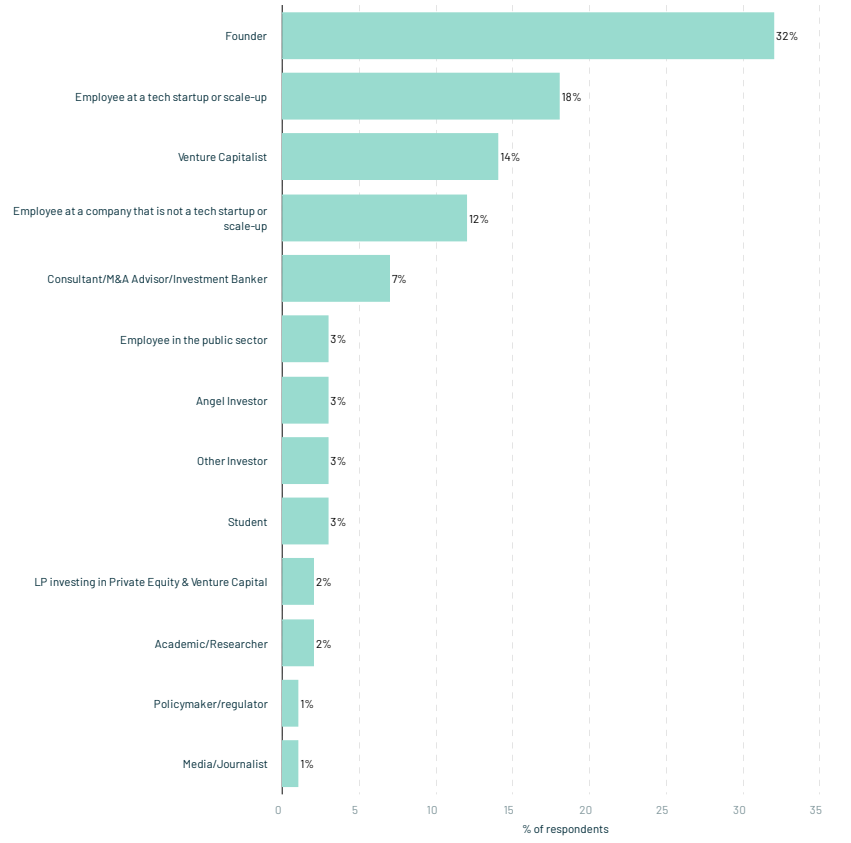


NOTE:

All respondents included. Numbers may not add to 100 due to rounding.

SOURCE: The State of European Tech Survey

What best describes your primary occupation?

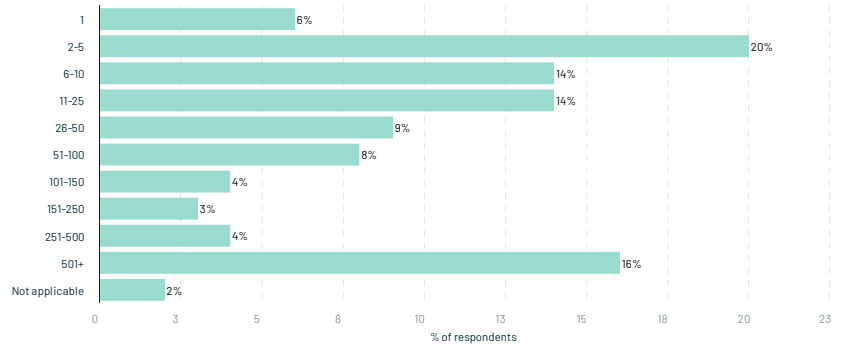


NOTE:

Europe-based respondents only. Numbers may not add to 100 due to rounding.

SOURCE: The State of European Tech Survey

How many people are employed at your company?

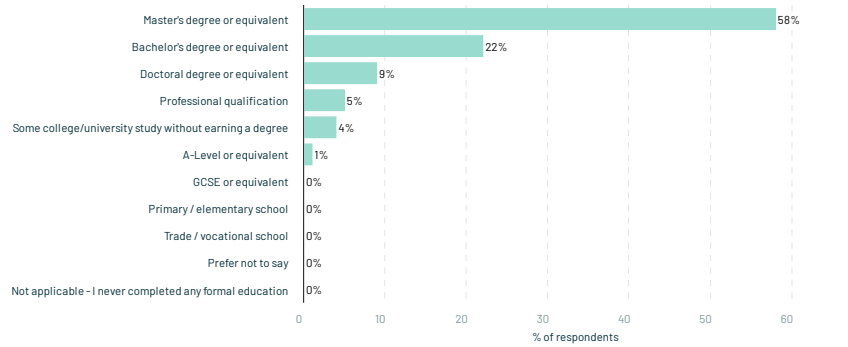


NOTE:

Europe-based respondents only. Numbers may not add to 100 due to rounding.

SOURCE: The State of European Tech Survey

What is your latest formal educational attainment or current level if you are still a student?

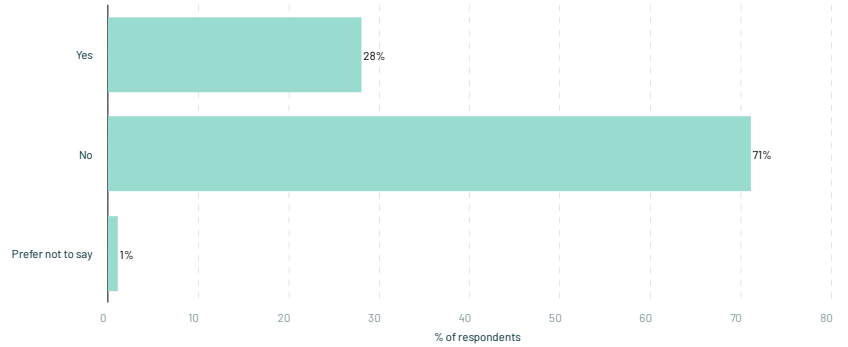


NOTE:

Europe-based respondents only. Numbers may not add to 100 due to rounding.

SOURCE: The State of European Tech Survey

Are you the first person (or part of the first generation) in your immediate family to go to university?



NOTE:

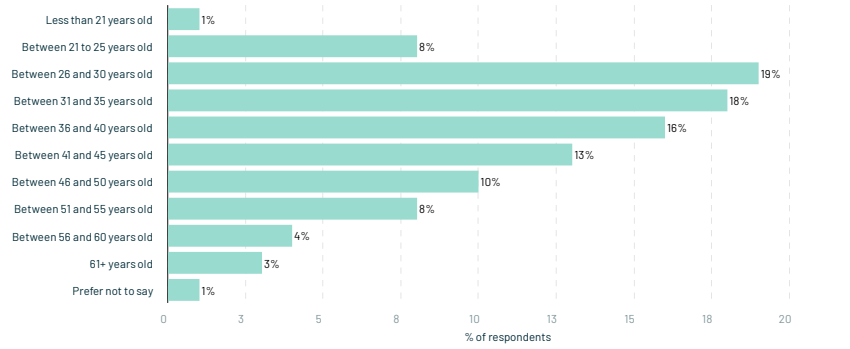
Europe-based respondents only. Numbers may not add to 100 due to rounding.

SOURCE: The State of European Tech Survey

What is your age?

NOTE:

Europe-based respondents only. Numbers may not add to 100 due to rounding.

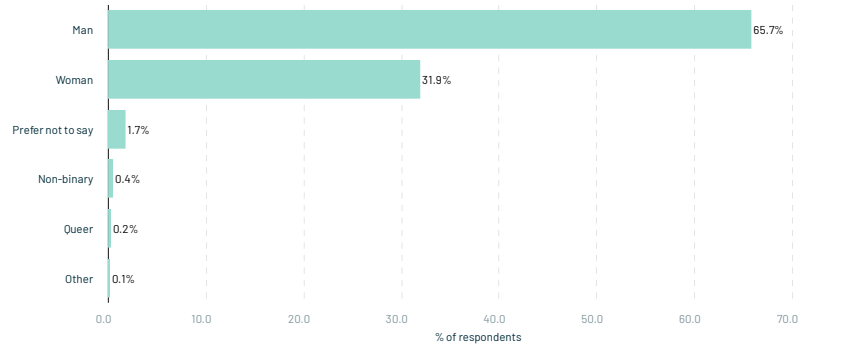


SOURCE: The State of European Tech Survey

What gender do you identify with?

NOTE:

Europe-based respondents only. Numbers may not add to 100 due to rounding.

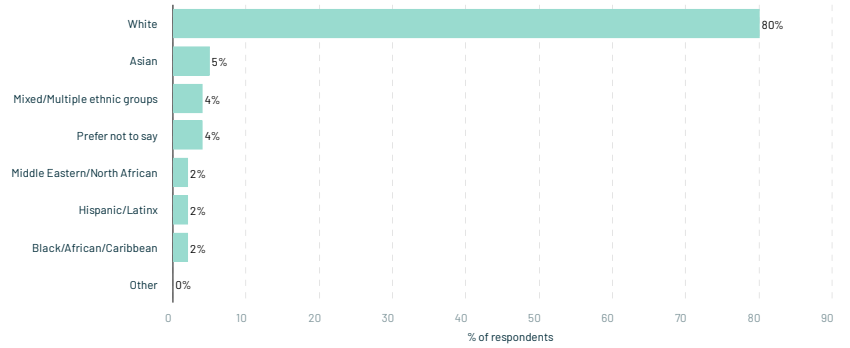


SOURCE: The State of European Tech Survey

Which best describes your ethnicity?

NOTE:

Europe-based respondents only. Numbers may not add to 100 due to rounding.



SOURCE: The State of European Tech Survey

AON

Radford is the technology and life sciences unit of Aon's Rewards Solutions practice.

About Rewards Solutions
The Rewards Solutions practice at Aon empowers business leaders to reimagine their approach to rewards in the digital age through a powerful mix of data, analytics and advisory capabilities. Our colleagues support clients across a full spectrum of needs, including compensation benchmarking, pay and workforce modeling, and expert insights on rewards strategy and plan design. To learn more, visit: rewards.aon.com.

About Aon
Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance. For further information, please visit aon.com.

App Annie

App Annie is the industry's most trusted mobile data and analytics platform. App Annie's mission is to help customers create winning mobile experiences and achieve excellence. Founded in 2010, the company launched the first mobile market data solution. In 2020, App Annie launched App Annie Ascend, an advertising analytics solution, making it the first company in its space to offer a side-by-side view of market data and companies' own data to support mission-critical business decisions. Together, these solutions comprise the industry's most complete mobile performance platform. More than 1,100 enterprise clients and 1 million registered users across all geographies and industries rely on App Annie to drive their mobile business. The company is headquartered in San Francisco with 12 offices worldwide.

Dealroom

Dealroom is a global company information database & research firm. Its software, database and bespoke research enable its clients to stay at the forefront of innovation, discover promising companies and identify strategic opportunities. Among its clients are world-leading strategy consulting firms, investment banks, multinationals, technology firms, venture capital & buyout firms and governments. For more information, please visit: dealroom.co

European Tech Alliance

The European Tech Alliance (EUTA) brings together a total of 30 companies from 17 European countries and gives voice to the major European digital champions, scaleups and leading startups. We believe that Europe is good at tech and our sector is driving jobs and growth across the continent. With an overarching goal of fostering innovation in Europe, EUTA members are keen to provide expert insights to the EU institutions and promote EU competitiveness in the global tech space.

CBRE

CBRE Group, Inc. (NYSE:CBRE), a Fortune 500 and S&P 500 company headquartered in Los Angeles, is the world's largest commercial real estate services and investment firm (based on 2018 revenue). The company has more than 90,000 employees (excluding affiliates) and serves real estate investors and occupiers through more than 480 offices (excluding affiliates) worldwide. CBRE offers a broad range of integrated services, including facilities, transaction and project management; property management; investment management; appraisal and valuation; property leasing; strategic consulting; property sales; mortgage services and development services. Please visit our website at www.cbre.com.

Craft

Craft is building the 'Source of Truth' on companies, mapping the global economy, and delivering unique intelligence on companies to corporate decision-makers globally. Craft collects, aggregates and curates financial, operating and human capital data to provide the deepest picture of private and public companies to assist decision-makers to manage their supply chain, maximize their investments, mitigate risks, grow their sales, leverage their talent and enhance their competitive position.

Google

Google's mission is to organise the world's information and make it universally accessible and useful.

Hg

Hg is a leading global investor in software and services, focused on backing businesses that change how we all do business. Deep technology expertise, complemented by vertical application specialisation and dedicated operational support, provides a compelling proposition to management teams looking to scale their businesses. Hg has funds under management of over $30 billion, with an investment team of over 140 professionals, plus a portfolio team of more than 30 operators, providing practical support to help our businesses to realise their growth ambitions. Based in London, Munich and New York, Hg has a portfolio of over 30 software and technology businesses, comprising over 35,000 employees across the UK, US and Europe. For further details, please visit the Hg website: https://hgcapital.com

Indeed

More people find jobs on Indeed than anywhere else. Indeed is the #1 job site in the world and allows jobseekers to search millions of jobs on the web or mobile in over 60 countries and 28 languages. More than 250 million people each month search for jobs, post resumes, and research companies on Indeed. For more information, visit indeed.com.

Invest Europe

Invest Europe is the world's largest association of private capital providers. We represent Europe's private equity, venture capital and infrastructure investment firms, as well as their investors, including some of Europe's largest pension funds and insurers.

Our aim is to promote a better understanding of private equity that enables our members to invest capital and expertise into improving businesses and generating returns for investors, free from unnecessary regulation and constraints.

Invest Europe's members take a long-term approach to investing in privately-held companies, from start-ups to established firms. They inject not only capital but dynamism, innovation and expertise. This commitment helps create healthy and sustainable companies across Europe, securing millions of jobs and delivering strong returns for leading pension funds and insurers whose members depend on them for their retirements.

London Stock Exchange Group

London Stock Exchange Group (LSE.L) is a diversified international exchange Group that sits at the heart of the world's financial community. The Group can trace its history back to 1801.

The Group operates a broad range of international equity, bond and derivatives markets, including London Stock Exchange; Borsa Italiana; MTS, Europe's leading fixed income market; and the pan-European equities platform, Turquoise. Through its markets, the Group offers international business, and investors, unrivalled access to Europe's capital markets.

Post trade and risk management services are a significant and growing part of the Group's business operations. LSEG operates CC&G, the Rome headquartered CCP and Monte Titoli, the significant European settlement business, selected as a first wave T2S participant. The Group is also a majority owner of leading multi-asset global CCP, LCH.

The Group offers its customers an extensive range of real-time and reference data products, including Sedol, UnaVista and RNS. FTSE calculates thousands of unique indices that measure and benchmark markets and asset classes in more than 80 countries around the world.

London Stock Exchange Group is also a leading developer of high performance trading platforms and capital markets software. In addition to the Group's own markets, over 40 other organisations and exchanges around the world use the Group's MillenniumIT trading, surveillance and post trade technology.

Headquartered in London, United Kingdom with significant operations in Italy, France, North America and Sri Lanka, the Group employs approximately 4,700 people.

Peakon

Peakon is an employee success platform that converts feedback into insights. It makes the employee conversation quantifiable and actionable to increase employee engagement – not simply measure it. Peakon's core belief is that work should work for people, and with the largest data set of employee feedback in the world, Peakon provides customised benchmarks and personalised insights to support our mission of helping every employee drive the change they want to see. To date, Peakon has helped organisations like Capgemini, Verizon, Pret, Trustpilot, and easyJet make fundamental changes in how they operate to improve employee experience, driving greater business results.

Pitchbook

PitchBook is a financial technology company that provides data on the capital markets to help professionals discover and execute opportunities with confidence and efficiency. We collect and analyze detailed data on the entire venture capital, private equity and M&A landscape—including public and private companies, investors, funds, investments, exits and people. Our data and analysis are available through our suite of products (the PitchBook Platform), industry news and in-depth reports.

POLITICO Europe

POLITICO, a global nonpartisan politics and policy news organization, launched in Europe in April 2015. POLITICO Europe is a joint-venture between POLITICO LLC, based in the USA and Axel Springer, the leading digital publisher in Europe. With operations based in Brussels and additional offices in London, Berlin and Paris, POLITICO connects the dots between global power centers.

POLITICO's premium politics and policy intelligence service, POLITICO Pro, empowers thousands of policy experts and decision-makers from over 1000 organizations in key industries. Launched in 2015, Pro now covers 7 policy areas: Agriculture and Food, Energy and Climate, Financial Services, Healthcare, Technology, Trade, and Mobility.

POLITICO Pro has 4 cross-industry products: Brexit Transition Pro, Sustainability Pro, Cybersecurity and Data Protection Pro, and Competition and Industrial Policy Pro. In 2020, POLITICO Pro launched its first U.K national policy product, Pro Trade UK. Subscribers include EU and national government, corporations, trade associations, consultancies, law firms, and NGOs.

POLITICO Pro's award-winning platform, Pro Intelligence, fuses the power of technology with the power of journalism, providing professionals with an overview of bills, legislation, voting behavior and attendance, tweets, activities, press releases, transcripts and more, at the touch of a button. Users can track information on the EU Institutions and national legislatures in the UK, France and Germany. Pro Intelligence was used by Atomico to research data on EU Tech legislation for this report.

PUBLIC

PUBLIC gives technology startups the networks, support, insights and capital to solve public problems and improve the lives of citizens. The team – led by Daniel Korski, ex-deputy head of the No.10 policy unit and venture investor, Alexander de Carvalho – combines expertise in government, technology and finance into a range of programmes like GovStart, a pan-european GovTech accelerator.

Through GovStart, its market-leading insight, well-known events and the technology solutions it builds in-house, PUBLIC has rapidly earned a reputation as a GovTech pioneer and an expert in the role of startups in transforming Europe's public sector. Its headline event: the annual GovTech Summit, brings together thousands of governments, startups, and investors from across Europe in an effort to break down the barriers that prevent great tech ideas from changing people's lives.

For more information, Visit PUBLIC.io.

Shareworks

Option Impact by Shareworks is the leading provider of pre-IPO compensation data. We partner with over 180 top-tier investors and over 3600 private companies to produce the world's largest corporate-sourced compensation database specific to private, venture-backed companies. Option Impact is a rolling cash and equity survey providing relevant market data across all levels and job families for $0 in exchange for maintaining current information in the system. To learn more, please email us at compensation@shareworks.com.

Sifted

Sifted is the Financial Times backed media platform for European entrepreneurs, innovators and investors. It is an essential, trusted and independent resource for the startup and tech world: a source of news, information and analysis and also a channel for discovery.

S&P Global Market Intelligence

At S&P Global Market Intelligence, we understand the importance of accurate, deep and insightful information. We integrate financial and industry data, research and news into tools that help track performance, generate alpha, identify investment ideas, perform valuations and assess credit risk. Investment professionals, government agencies, corporations and universities around the world use this essential intelligence to make business and financial decisions with conviction.

S&P Global Market Intelligence is a division of S&P Global (NYSE: SPGI), the world's foremost provider of credit ratings, benchmarks and analytics in the global capital and commodity markets, offering ESG solutions, deep data and insights on critical business factors. S&P Global has been providing essential intelligence that unlocks opportunity, fosters growth and accelerates progress for more than 160 years. For more information, visit www.spglobal.com/marketintelligence.

TalentUp

TalentUp offers data-driven insights into the talent market to help companies drive effective recruitment and retention strategies.

With TalentUp talent market data, companies can tailor their human resource strategies to discover exceptional talent, detect market opportunities and present better job offers.

TalentUp uses proprietary Big Data and AI technology to analyze millions of companies and professionals on social networks and websites. Our talent market data offers business leaders and HR professionals deep insights into the talent market, and offer guidance on what it takes to recruit the right candidate.

Vamstar

Vamstar uses artificial intelligence to help healthcare companies find new commercial opportunities and accelerate market entry. Our vision is to become the number one trusted source of buyer, supplier, and contract data in healthcare. For more information, visit https://vamstar.io

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