



# The State of European Tech

2018

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# 2018 Key Findings

## What's changed for European tech in the past 12 months?

It's been another record year for investment in European tech and the sector is powering growth in Europe's stagnant economy. Yet not everyone is benefitting from the boom. The gains are not being democratized by investors. Companies need to address diversity and inclusion tools and unlock hidden talent pools.

### KEY FINDINGS

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- 01 Another record year for investment into the European tech ecosystem
- 02 Europe urgently needs to fix its diversity & inclusion problem
- 03 Europe's tech industry is the best hope for growth for a stalling European economy
- 04 The gains from Europe's tech boom are not yet being democratised
- 05 Mobilising Europe's hidden tech talent pool can unlock huge upside
- 06 Europe is producing \$B+ companies at a level that is 15x+ higher than a decade ago
- 07 Top highlight statistics for Europe

# Another record year for investment into the European tech ecosystem

01



## CAPITAL INVESTED

# \$23B

Record sums invested in Europe's technology ecosystem- \$23bn in 2018 up from just \$5bn in 2013.

Source: dealroom.CO

## TECH IPO COMPANIES

# 4X \$5B

There were four tech IPOs or direct listings of European tech companies in 2018 that reached valuations of more than \$5B on opening day, including Europe's largest ever venture-backed publicly-listed tech company, Spotify. In total, Europe contributed three of the top 10 largest tech IPOs globally of 2018.

# Europe urgently needs to fix its diversity & inclusion problem

02



## CAPITAL INVESTED

# 93%

93% of all funds raised by European VC-backed companies went to all-male founding teams in 2018.

Source: dealroom.CO

## GENDER DISCRIMINATION

# 46%

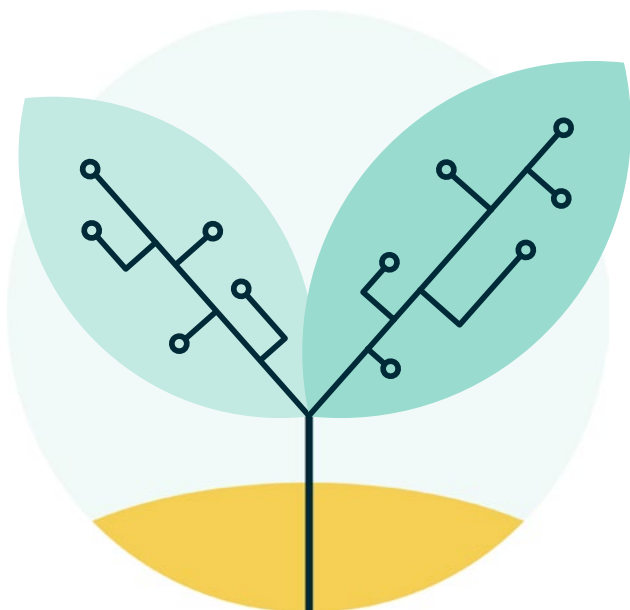
Almost half of women reported that they have experienced discrimination in the European tech sector. This is a point of clear tension with the 75% of respondents who think the culture at their European startup is inclusive. In European tech, discrimination appears to be someone else's problem.

Source: The State of European Tech Survey



# Europe's tech industry is the best hope for growth for a stalling European economy

03



## TECH INDUSTRY GROWTH

5x

Europe's tech (software) industry is growing 5x faster than the rest of the European economy in terms of Gross Value Added, a level that has accelerated in recent years.

Source: Eurostat

## EMERGING TECH HUBS

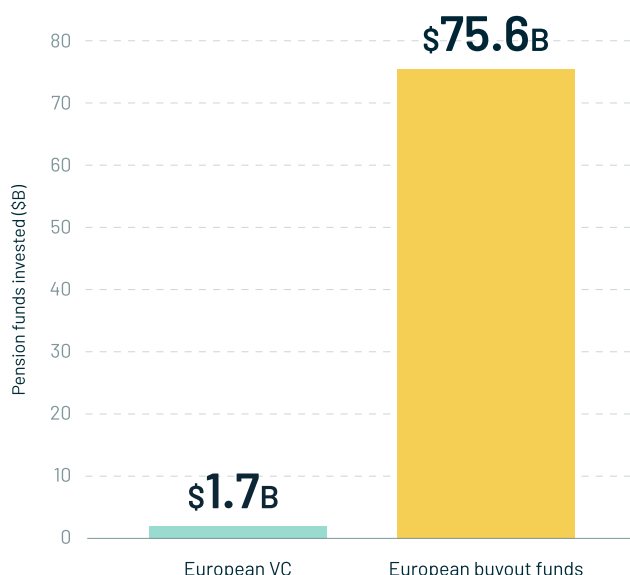
4%

The European tech workforce grew 4% in 2018 (source: LinkedIn), a significant difference to overall EU employment growth of 1.1%.

Source: European Commission [LinkedIn](#)

# The gains from Europe's tech boom are not yet being democratised

04



## PENSION FUNDS INVESTMENT

45x

Pension funds are not yet democratising Europe's tech sector boom - over the last five years, pension funds have invested just \$1.7B in European VC, but have invested 45x more in European buyout funds, equivalent to more than \$75B over that period.

## HNW INVESTMENT

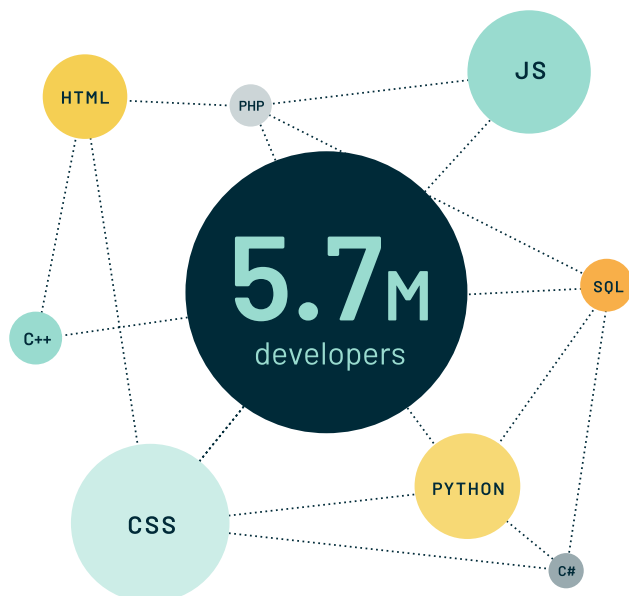
\$5B

European tech growth and record success has not gone unnoticed by family offices and high net-worth individuals (HNWs). Over the last five years they have invested over \$5bn in European venture capital funds. Only government agencies have invested more in European VC in that same period.

Source: [iVest Europe](#)

# Mobilising Europe's hidden tech talent pool can unlock huge upside

05



## PROFESSIONAL DEVELOPERS

5.7M

Europe's ecosystem is more distributed and more interconnected than ever - there are now 5.7m professional developers in Europe, up by 200,000 on 2017. This compares to the 4.4m in the US, a number that stayed flat year on year.

Source: stackoverflow

## EMERGING TECH HUBS

15

Still more European tech hubs will emerge. Cities such as Cologne, Warsaw and Vienna all have larger developer populations than Stockholm and active local tech communities, but have yet to attract as much investment. In fact, there are 15 European cities with professional developer populations of 50,000+ that have seen less than \$1B in total capital investment since 2013.

Source: stackoverflow meetup

# Europe is producing \$B+ companies at a level that is 15x+ higher than a decade ago

06



## \$B+ COMPANIES

61

European \$B+ companies founded in the past 15 years, including a record 17 new companies that first surpassed the milestone in 2018. Europe has also now produced 12 companies with a \$5B+ valuation, of which 5 have grown to more than \$10B.

## SUCCESS GROWTH

15x

Two companies founded in the 2000s had reached \$B+ by 2008. Compare that to 31 founded in the 2010s that reached that milestone by 2018 - an increase of 15.5x. Where will the 2010s end up by 2028?

# 01

## The State of European Tech 2018

**Back once again like  
the renegade...er...  
data analysers!**

This is the fourth edition of the State of European Tech report, the single, most comprehensive data-driven story of European technology today. We've gathered data from world-class data partners and a survey of 5,000 members of the tech ecosystem, from founders to students, investors to researchers. We've tried to tell the most important stories. We cover diversity and inclusion, talent, regulation, investment, research and development, and the great, global disrupters out of Europe.

### ARTICLES

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- 01.1 Welcome to the State of European Tech 2018
- 01.2 Executive Summary

# Welcome to the State of European Tech 2018

We're proud to present the 2018 edition of the State of European Tech report, which is once again the single, most comprehensive data-driven story of European technology today.

It's been another incredible year for European tech - but there are some significant challenges too

We write this report to shine a light on the issues that matter in the European ecosystem. We aim to enrich conversations, highlight challenges, and support more informed decision making by closing the knowledge gap between perception and reality.

Each year we aim to produce a resource that is more comprehensive than the last. To this end, you'll notice

that this report is a lot longer than in previous years. This was a deliberate decision. Our data is open, and our hope is as many people as possible will use it to help tell the stories that matter to them in Europe.



## Executive Summary

For the past four years, we've produced an exhaustive deep dive into the European tech ecosystem by analysing the rich insights of our data partners. Every year the data busts another myth about our ecosystem: from pointing out that Europe actually has more developers than the US, to quantifying European advances in deep tech.

### Another record breaking year for European tech

This year we're at risk of sounding like a broken record about breaking records - but we can't dispute the data. In another extraordinary year, investment in European tech reached a record

\$23 billion - up from \$5 billion just five years ago. European founders created 17 billion-dollar companies. And in 2018, Europe produced three of the ten biggest venture backed public listings.

### Technology has become a motor for growth in the European economy

At a macro-level, Europe's technology sector is booming as the wider economy is stuck in the doldrums. As of Q3 2018, European growth was flatlining at 0.2%, the lowest rate for four years. Europe's software industry is now growing at least five times

faster than the rest of the European economy. This year's report suggests that for a number of reasons, this motor will only become more powerful. The importance of the tech to the overall economy will only increase.

### European tech achieving density

Last year we found that Europe was experiencing a 'Battle Royale' for talent. This year was the year Europe figured out how to effectively mobilise its deep pools of talent. The tech sector is attracting more participants - whether measured by the healthy increase in professional developers or the uptick in talented executives moving into tech from other sectors. The report shows dense areas of talent coalescing around universities, anchor tech companies, and innovation hubs, leading in turn to increases in investment, and growth in anchor tech companies.

This all contributes to 'density' - which historically has been a crucial precondition for explosive growth. Europe is certainly achieving density, but it's doing it its own way. What is interesting is that the developer pool is growing fastest outside those countries that have historically attracted the most investment: Turkey, Spain and Russia's pool of developers have been deepening the most rapidly. All this will lead to a massive potential upside for the wider European economy as capital eventually flows into these new communities.

### Europe is a research powerhouse

This year's report also shows that we are only scratching the surface of the potential of Europe's research community, and not fully harnessing our own cutting-edge science. An analysis by CERN, one of this community's most influential members, demonstrates that as

science and tech converge further, there is huge scope to strengthen the link between European STEM and startups. Europe has a research community larger than U.S. and China - we need to make sure this becomes the hugely powerful differentiator it should be.





## Let Europe be Europe

A word to the naysayers: irrespective of the huge strides European tech has taken in the last few years, our tech sector will continue to be compared to the performance of Silicon Valley.

And as the ecosystem accelerates, we are increasingly cool with that! For a long time, US VC has outperformed European VC in terms of portfolio returns, but that is increasingly untrue. The latest historical performance data shows that European venture has been outperforming US venture in recent

horizon periods. We believe this is a bellwether for a changing landscape. Let's not forget that 95% of the value creation of today's US tech sector is from companies founded 15 years ago or more, and that the early tech successes of ARM, Amadeus and Ocado were not venture-backed. Given that 21 European companies have been founded and scaled to billion-dollar-plus valuations with the support of venture capital since 2010 alone, we are confident that Europe has caught up on North America's head start.

## A big diversity and inclusion problem

This year's report also unearths several figures which are extraordinary for all the wrong reasons. The State of European Tech has always highlighted the challenges Europe faces, but this year, we've identified a particularly serious problem: 46% of women told us they have experienced discrimination in the European tech industry. As our chapter on diversity and inclusion shows, this statistic is the tip of the iceberg. While most investment figures in this report spell good news, the fact that all-male founding teams received around 93% of the capital and 85% of the deals speaks for itself. Women and minorities are underrepresented at every level of the ecosystem. Corporate policy on diversity and inclusion is still

way behind where it needs to be. This stark reminder of our shortcomings is timely, and it's important that we draw the right conclusions.

Reporting this data is a first step in the right direction. Only by measuring the problem can you start to solve it. To take on this challenge, we've worked with Diversity VC to launch an industry-first resource: a practical and hands-on guide for technology entrepreneurs that will help them build companies that have diversity and inclusion at their core. It's not a complete solution, but we hope it's a contribution that founders will find useful nonetheless. You can find the toolkit at [www.inclusionintech.com](http://www.inclusionintech.com)

## But we can still learn from the successes and failures of others

As Europe catches up, it is vital that we make the most of our second mover advantage – both in the companies we build, and in our approach to building them. European tech has escaped most of the backlash which has engulfed big US technology companies and characterised media coverage this last year. For this to continue, we'll need to learn from past failures, and act ethically from day one. European technologists have already shown we can learn from the lessons of the past in terms of business strategy. Before he founded Skype, Atomico's CEO

Niklas Zennström founded a streaming company called Kazaa. Kazaa was a failure, but a group of Swedes led by Daniel Ek were paying close attention, and learned important lessons. Learning from the mistakes of the previous generation led to the creation of Spotify. Spotify has unequivocally proven that today, European founders can raise the right capital, hire the best talent, go the full distance, stave off ferocious competition and win on a global stage. Spotify will now become the spur and inspiration for other European breakout successes.

## Another broken record: Bridge the funding gap, democratise European tech's success

This report has consistently highlighted the need to close the institutional investor funding gap. Over the last five years, pension funds have invested just \$1.7 billion in European VC, but have invested 45x more in European buyout funds, equivalent to more than \$75B over that period. Meanwhile, family

offices and high net worth individuals have spent the last five years investing \$5 billion in venture capital. If pension funds can rebalance their allocations away from legacy industries towards gamechanging technology instead, they can democratise access to the spoils of European tech.

## An ecosystem irreversibly changed

The European ecosystem has levelled up. Today, as Spotify has shown us, European founders have access to sophisticated investors, can hire the best talent, go the full distance, stave off ferocious competition, go public and win on the global stage. Europe is now reaping the early rewards from the transformation of its tech ecosystem-

the seeds of success this year were planted a decade ago. That is why we should expect even greater success in the years to come. As long as we all continue to learn from both success and failure, will European tech reach the heights we know it to be absolutely capable of.

## Thank you to all our partners

I'd like to dedicate my final words to thank all of our data partners and most importantly, Slush and Orrick. Without

them this report would not have been possible.



**Tom Wehmeier**  
Partner, Atomico

# A Word from Slush

Scrolling through the figures of the State of European Tech 2018 report, it is easy to feel a nice sense of confirmation to what we've been seeing and hearing throughout the year in countless conversations with entrepreneurs: European tech is graduating. Record numbers of both raised funding and exits speak louder than words, and they have interesting consequences.

As the amount of successful scale-up companies continues to rise on the continent, so does the need for ever greater amounts of top tier talent.

As the access to venture capital is no longer the biggest bottleneck for European tech, our eyes are turning towards cultivating the next generation of world-class talent for the current and future tech companies that are set out to solve some of the biggest challenges on the planet.

For this we need a diverse talent pool to be part of building the European tech companies.

The problem of diversity that Europe, like the rest of the world, is having can be turned into an opportunity. By lifting up a more diverse set of role models will affect the decisions of to-be founders. Emphasizing the role that humanities and arts, in addition to STEM, will play in the future development of technological solutions should be done upfront if we want to gain an edge from the magnificent creative industry in Europe.

One more additional thing that Europe really stands to benefit from is our strong academia. Nailing the combination of bleeding-edge, hardcore research and practical, world-class company building should be one of our main targets for the upcoming years.

Almost all businesses that want to make it big in Europe have to think international or global from the beginning. This is a mindset that we should utilise also in the next generation of education for future entrepreneurs. Stay tuned!



**Andreas Saari**  
CEO, Slush



# A Word from Orrick

There has been a nearly five-fold growth in European venture capital investment in the last five years. There are five times the number of unicorns – with at least 17 new billion dollar plus companies added in the past year alone. The European tech sector has produced nearly four times the job growth rate of the general economy, resulting in a talent pool of programmers and STEM researchers surpassing that of the United States. Tech and innovation is no longer on the sidelines in Europe – it is driving the economy. That's the clear take-away from this year's State of European Tech Report.

At Orrick, we see it in our practice every day as we have helped founders, investors and corporate venture clients raise or deploy more than \$\_\_\_\_ across Europe over the past year.

As a global tech law firm, we're not surprised to see investors from around the world chasing strong returns from their European investments. While U.S. investment returned to 2016 levels after another record-breaking performance last year, investment from Asia continued to grow.

We're encouraged by corporate venture investment growth, particularly from outside traditional tech industries. This affirms the strong demand for innovation – as companies in every

sector recognize the need to adapt to the tech transformation.

Altogether these trends point to a robust future for European tech. However, the Report's purpose is to shine a light on all of "the issues that matter" in the European tech ecosystem. We applaud Atomico for highlighting some deeply troubling ones: 46% of women in tech report experiencing discrimination and only 7% of capital went to female founded companies or mixed gender founding teams. That's not right – and it's not sustainable if Europe truly wants to innovate. We also applaud Atomico's collaboration with Diversity VC to provide guidance to founder teams on how to build a diverse and inclusive culture. Awareness and education are a key first step. Investors have an essential role to play. The good news is that there's an incredible amount of unfunded talent out there. Let's all participate in the conversation about how to dramatically improve next year's results.

We're grateful to Atomico for the opportunity once again to help provide this data to the tech community in Europe and globally. We hope you find it as useful as we do in seeing the patterns and opportunities in this rich and promising ecosystem.



**Christopher Grew**  
Partner,  
Technology  
Companies Group  
Orrick



# 02

## Tech & the European Economy

**Continuing to drive significant growth**

While Europe's overall economy and traditional industries are stuck in the doldrums, booming tech represents the best hope for growth. Tech firms are powering job creation and ambitious founders are tackling some of the world's biggest problems. All of that has members of the ecosystem optimistic - except in the U.K. where sentiment is not at the same levels as elsewhere.

### ARTICLES

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- 02.1 Powering Workforce Growth
- 02.2 Tech: The Motor for GDP Growth
- 02.3 Heritage as opportunity
- 02.4 Smiles (almost) all round in European techv
- 02.5 Tech for Good: A European Opportunity?

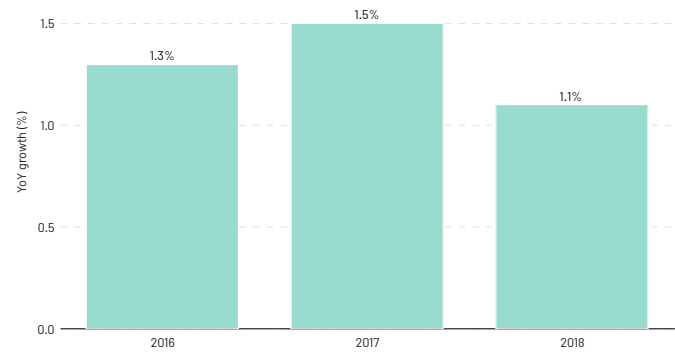
## Powering Workforce Growth

- Employment growth in European economy as a whole is stalling. The European Commission's latest forecast for 2018 employment growth implies a drop to just 1.1% year-on-year growth, a material decline from the level seen in 2017.

EU employment growth, 2016-2018

LEGEND

- EU employment YoY growth



Source: European Commission

- It is worth comparing EU employment growth rate to the remarkable worker population growth that powers the European tech industry.

### TECH WORKER POPULATION GROWTH

4%

Europe's tech worker population grew 4% in 2018.

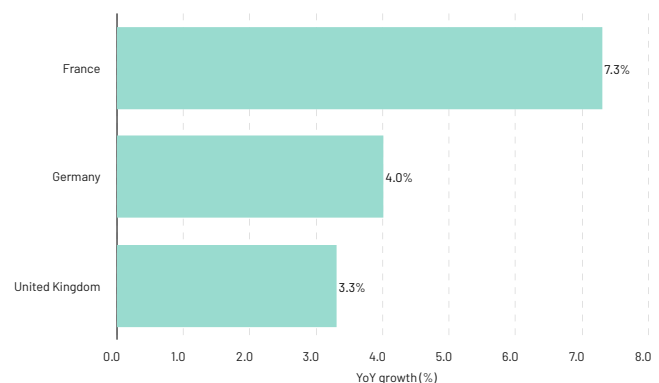
Source: LinkedIn

- The French tech worker population is growing significantly faster than in Germany and the UK.

Tech worker population growth in France, Germany and the UK in 2018

LEGEND

- YoY tech worker population growth (%) in 2018



Note:  
Based on an analysis of sample pool of LinkedIn members and the difference between those in 2018 working in the Tech Sector in each country from this sample pool.

Source: LinkedIn

- France's tech worker population grew at the fastest rate of any European country in 2018

## WORKFORCE GROWTH

# 7.3%

French tech workforce growth in 2018, based on a comparison of the size of the workforce in October 2018 versus October 2017.

Source: [LinkedIn](#)

- The rate of tech workforce growth across Europe is not equally distributed, with workforces in some countries growing much faster than others.

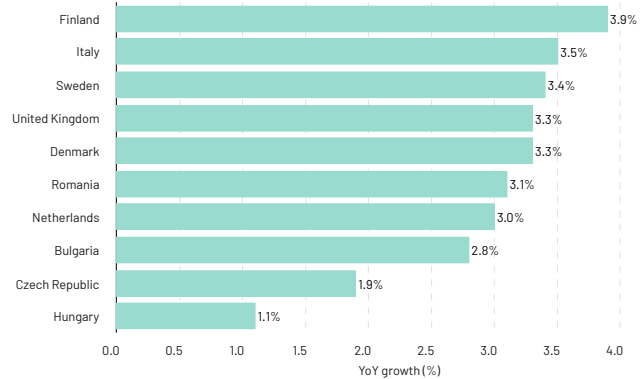
### YoY growth in the worker population of the Top 20 largest tech workforces by country in 2018

DATASET: 11-20

#### LEGEND

2018

Note:  
Based on an analysis of sample pool of LinkedIn members and the difference between those in 2018 working in the Tech Sector in each country from this sample pool and those in 2017.

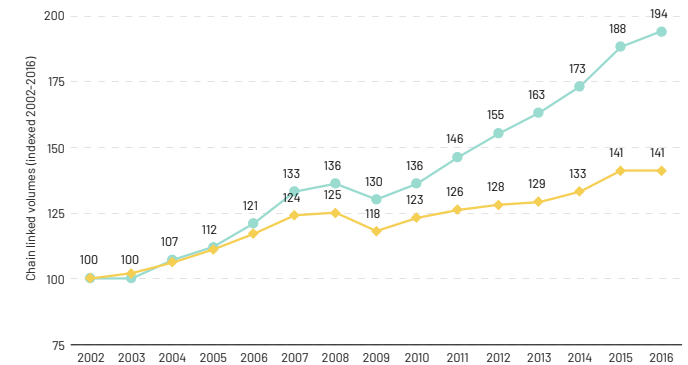
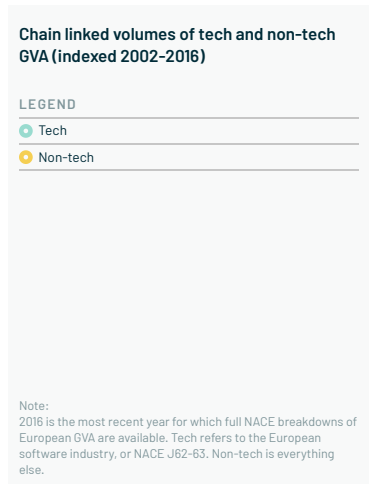


Source: [LinkedIn](#)



## Tech: The Motor for GDP Growth

- There is an ever-widening gap in the indexed growth rates of the tech (software) and non-tech parts of the European economy. Over the past 15 years, tech (software) has grown to hit 194% of its relative value in 2002.



Source: Eurostat

- Europe's software industry growth dramatically outpaces the rest of the European economy

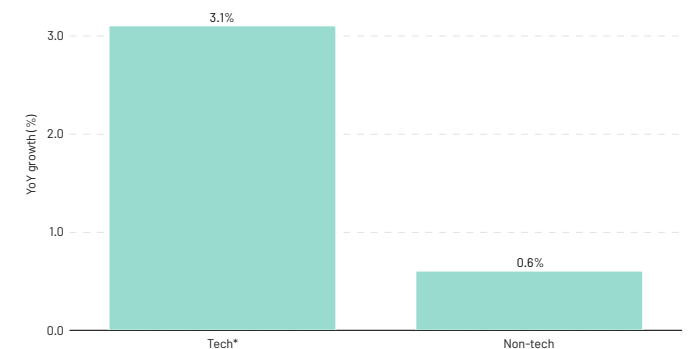
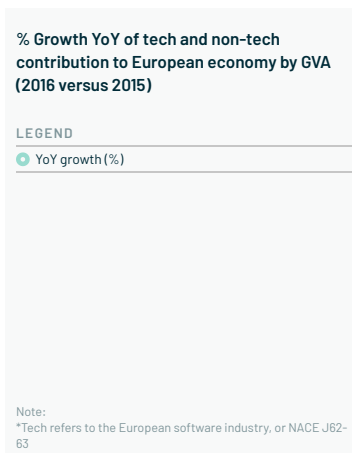
### ECONOMIC GROWTH

5x

Latest figures show Europe's software industry Gross Value Added is growing 5x faster than the rest of the European economy

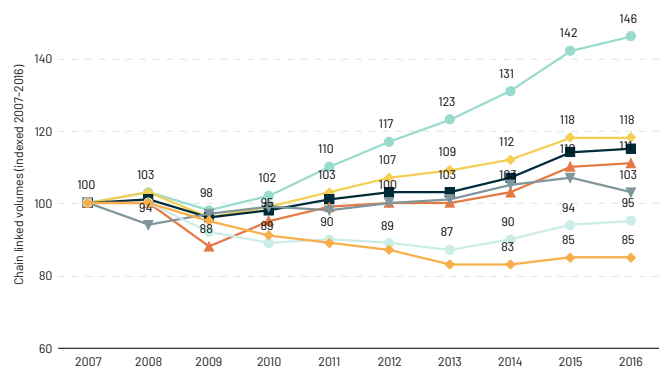
Source: Eurostat

- While the long-term historical trend in relative growth rates has been impressive, more recently the speed of growth between tech and non-tech has diverged even further. Today, the European tech (software) industry is now growing 5x faster than the rest of the economy



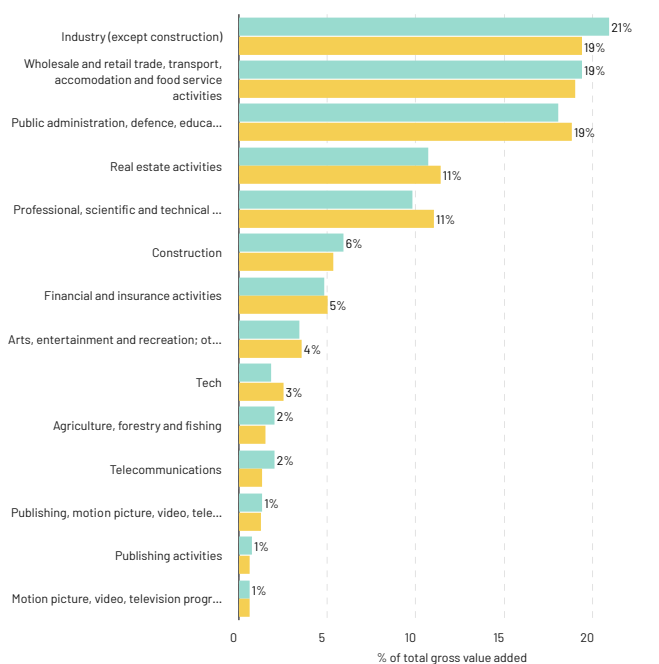
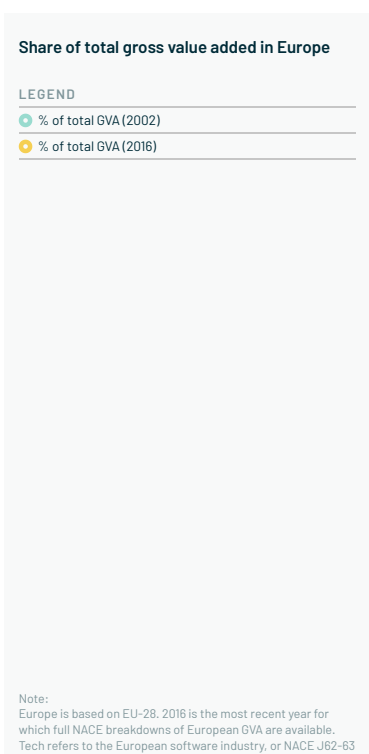
Source: Eurostat

- Over the last 10 years, many of these traditional industries upon which the European economy is so dependent have either stagnated or declined, undermining the overall rate of growth in European Gross Value Added



Source: Eurostat

- Yet the European economy today remains heavily dependent on traditional industries, such as industrial manufacturing, construction, retail and transportation



Source: Eurostat





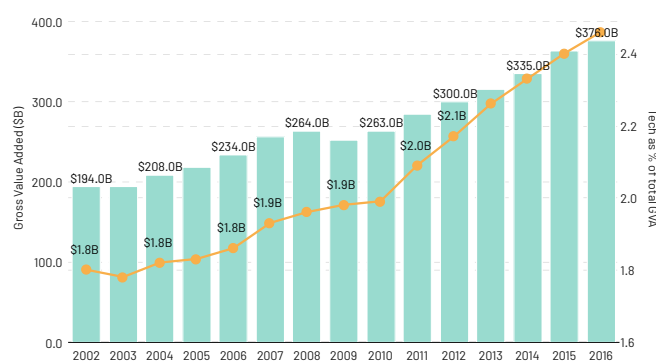
- The European tech (software) industry contributes around \$400 billion to the European economy today, though it remains just a fraction of total European Gross Value Added, accounting for just 2.5% of total European GVA

**Tech industry contribution to the European economy by total Gross Value Added (\$B) and % of total (2002-2016)**

**LEGEND**

- Tech
- Tech as % of total GVA

Note:  
2016 is the most recent year for which full NACE breakdowns of European GVA are available. Tech refers to the European software industry, or NACE J62-63



Source: Eurostat

- At ~\$400 billion, Europe's software industry is still just a fraction of overall European Gross Value Added

## ECONOMIC GROWTH

# 2.5%

Latest data shows Europe's software industry accounts for 2.5% of total Gross Value Added in Europe, up from 1.9% 10 years ago

Source: Eurostat

## Heritage as Opportunity

- There is huge equity value locked up in traditional industry in Europe

### TRADITIONAL INDUSTRY

**\$8.8T**

Total value by market cap of European companies from traditional industries in the S&P Global 1,200

Source: S&P Global Market Intelligence

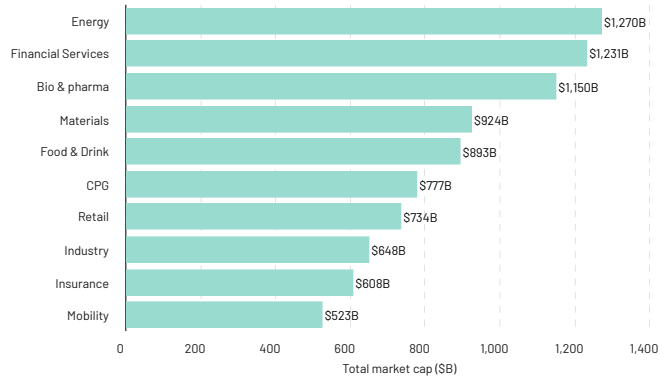
- As technology becomes an increasingly more transformative force across all parts of the economy, there is a huge opportunity to digitise and reignite Europe's traditional industries with trillions of dollars of value in play. The combined market capitalisation of European constituents of the S&P Global 1,200 equates to \$8.8 trillion in just the top 10 most valuable traditional industries.

#### Total market cap of European public companies in S&P Global 1,200 by industry group (\$B)

##### LEGEND

- Total Market Cap (\$B)

Note:  
Based on an analysis of the industry breakdown by market cap, revenue, market cap/revenue multiple and age of the 328 constituents of the S&P Global 1,200 Index from Europe. Data as of October 2018.



Source: S&P Global Market Intelligence

Source: S&P Global Market Intelligence

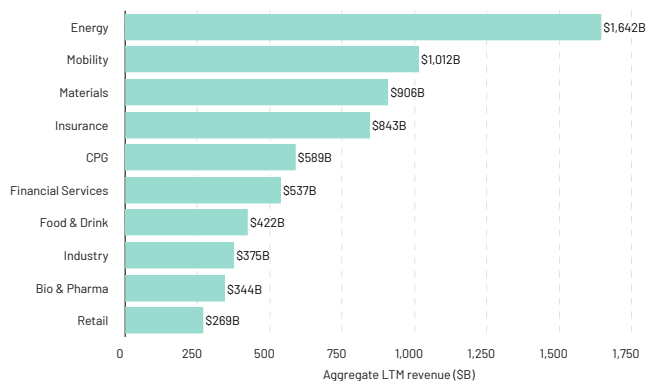
- Those same 300 or so European companies control more than \$6.9 trillion in annual revenue and represent a giant potential opportunity for any European tech companies that seek to take on those incumbent giants in their traditional industries

#### Total revenue of European public companies in S&P Global 1,200 by industry group (\$B)

##### LEGEND

- Total revenue (\$B)

Note:  
Based on an analysis of the industry breakdown by market cap, revenue, market cap/revenue multiple and age of the 328 constituents of the S&P Global 1,200 Index from Europe. Data as of October 2018.



Source: S&P Global Market Intelligence



- Europe's most valuable public companies – 95% of which come from traditional industries – have demonstrated remarkable endurance until now

## TRADITIONAL INDUSTRY

# 102

Median age in years of the 348 European companies that are constituents of the S&P Global 1,200 index. This compares to 64 for North American companies. Do the old have the speed it takes to respond to tech-enabled change?

Source: S&P Global Market Intelligence

- Interestingly, the median age of the incumbent companies in these industries is well over 100 years. In the battle of incumbent versus startup, it is not the young who beats the old or the large who beats the small. It is those who are fast that are more likely to succeed against the slow.

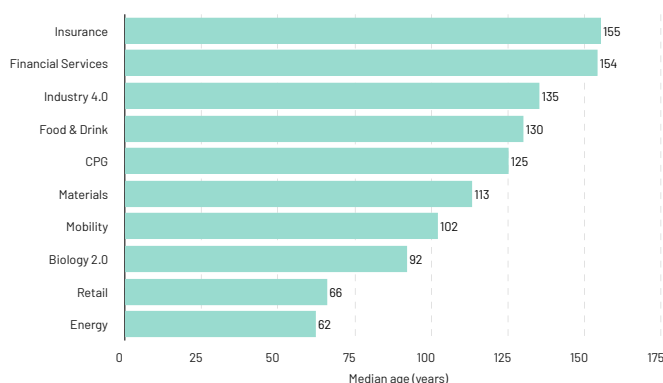
### Median age in years of European public companies in S&P Global 1,200 by industry group

#### LEGEND

- Median Age of Companies (years)

#### Note:

Based on an analysis of the industry breakdown by market cap, revenue, market cap/revenue multiple and age of the 328 constituents of the S&P Global 1,200 Index from Europe. Data as of October 2018.

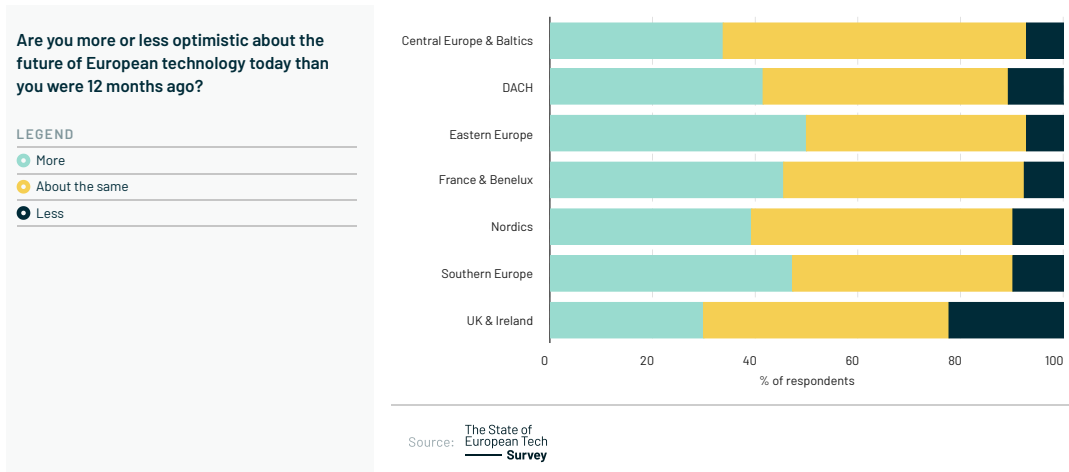


Source: S&P Global Market Intelligence



## Smiles (almost) all round in European tech

- Europe's tech ecosystem remains characterised by a strong level of growing optimism about the future. This increase in optimism is most evident in Eastern and Southern Europe where there is real momentum. The UK, perhaps unsurprisingly, registered the largest downturn in optimism by a wide margin.



- There continues to be a very strong sense of optimism across the European tech ecosystem

### EUROPEAN TECH OPTIMISM

90

of the European tech community is either more optimistic about the future of European tech, or maintain the same levels of optimism compared to 12 months ago. This remains the same as 2017, when 91% of respondents were more optimistic or the same.

Source: S&P Global Market Intelligence



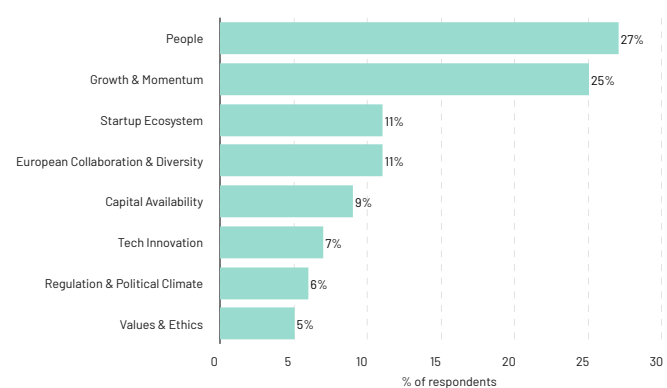
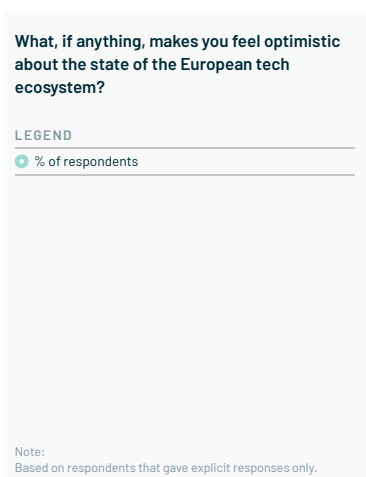
2018 has seen some strong wins for the European tech ecosystem and we are resoundingly optimistic and excited by the opportunity set we see emerging.



**Munish Varma**  
SoftBank Vision Fund

"2018 has seen some strong wins for the European tech ecosystem and we are resoundingly optimistic and excited by the opportunity set we see emerging. There were several large IPOs in the region signalling that the sector is maturing while still generating opportunities to partner with emerging, disruptive companies that combine market leadership, multiplying network effects and data-driven approaches to create transformative businesses. Enhanced access to early growth capital is also a hugely positive market driver, enabling more companies to scale rapidly while still prioritising innovation."

- The factors that are driving optimism around the future of European tech are many and varied. But when asked to state the most important grounds to be optimistic, respondents gave a clear number one reason: the people that make up the tech ecosystem



Source: The State of European Tech Survey



I'm definitely more optimistic than 12 months ago. I think we're seeing a marked shift in ambition in Europe, and crucially, that's being matched at an investor level.



**Rosie Dallas**  
Fat Llama

"I'm definitely more optimistic than 12 months ago. I think we're seeing a marked shift in ambition in Europe, and crucially, that's being matched at an investor level. What's more, the increased cost of living and hiring competition seem to have taken the blinkers off a lot of Valley-bound entrepreneurs. This can only benefit Europe."

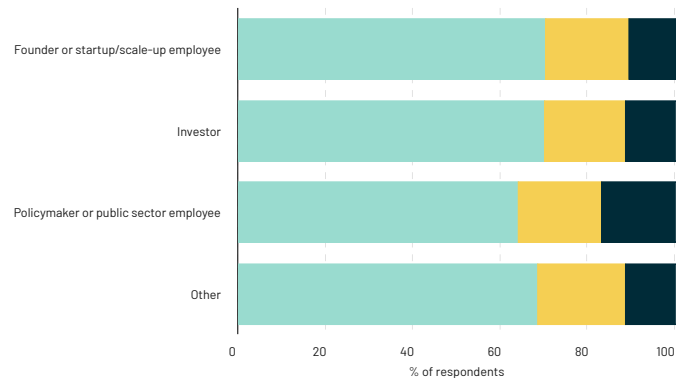
## Tech for Good: A European Opportunity?

- There is strong agreement across all survey respondents, including within the public sector, that European tech entrepreneurs will have a bigger impact than European governments when it comes to solving important global challenges.

### European technology entrepreneurs will do more to address societal challenges

#### LEGEND

- Agree
- Neither agree nor disagree
- Disagree



Source: The State of European Tech Survey

### Selected early-stage European tech companies with a strong focus on solving a major global or societal challenge that have raised in the past year from top investors

	Area of Focus	City	Country	Round Date	Selected Investors
Cambridge Glycoscience	Biology 2.0	Cambridge	UK	3Q18	Y Combinator
Cytera CellWorks	Biology 2.0	London	UK	3Q18	Y Combinator
Lifebit	Biology 2.0	London	UK	3Q18	Connect Ventures, Pentech Ventures, Tiny VC
GTN Limited	Biology 2.0	London	UK	2Q18	Octopus Ventures, Pentech Ventures
Quit Genius	Digital Health & Wellness	London	UK	2Q18	Force Over Mass Capital, Village Global, Y Combinator
TPH.co	Future of Retail	Stockholm	Sweden	2Q18	Propel Capital, STING, Seedcamp, The Nordic Web Ventures, Wave Ventures
Veratrak	Biology 2.0	Oxford	UK	2Q18	Seedcamp
Carbo Culture	Future of Energy	Helsinki	Finland	1Q18	Wave Ventures, Lifeline Ventures, Starlight Ventures
Disior	Digital Health & Wellness	Helsinki	Finland	1Q18	Maki.vc
KisanHub	Future of Food & Drink	Cambridge	UK	1Q18	IQ Capital Partners, Notion Capital
Sixfold Bioscience	Biology 2.0	London	UK	1Q18	Y Combinator, LombardStreet.io Ventures
ThinkSono	Digital Health & Wellness	London	UK	1Q18	AI Seed, WestTech Ventures
WeFarm	Future of Food & Drink	London	UK	1Q18	Localglobe, True Ventures, ADV, Norrskan Foundation
Fat Lama	Future of Retail	London	UK	4Q17	Blossom Capital, Greylock Partners, Atomico, Y Combinator
Hygglo	Future of Retail	Stockholm	Sweden (SWE)	4Q17	Norrskan Foundation, Schibsted Growth
LabGenius	Biology 2.0	London	UK	4Q17	Acequia Capital, Kindred Capital, System.One

Source: dealroom.co

- There is a strong level of conviction in the power of European tech entrepreneurs to be changemakers for a better world

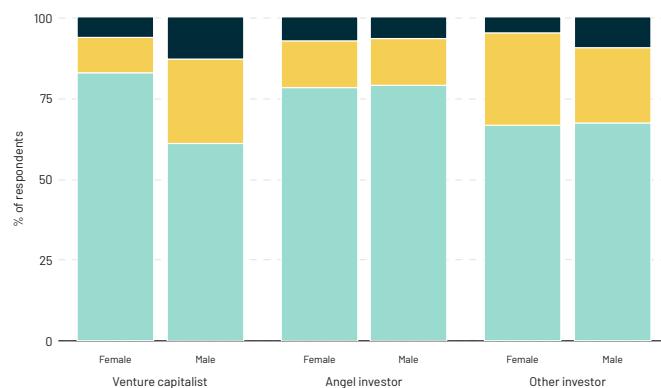
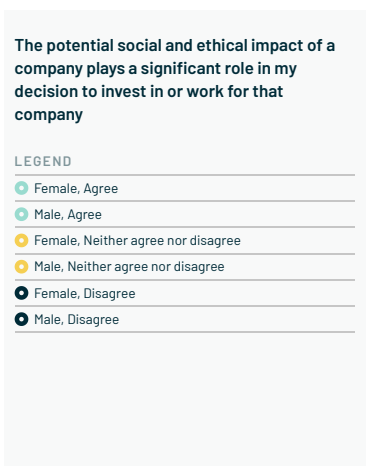
## ENTREPRENEURS AS CHANGEMAKERS

64%

% of public sector and policymaker respondents who agree that European technology entrepreneurs will do more to address major societal challenges than European governments

Source: The State of European Tech Survey

- There is clear evidence that those working in European technology pay close attention to the social and ethical impact of the companies for whom they work - this is reflective of a global trend.



Source: The State of European Tech Survey



*Compared to US, we seem to be a bit further ahead when it comes to sustainability. Especially when it comes to food waste and climate consciousness, both among consumers and within the food industry...*



**Elsa Bernadotte**  
Karma

*"Compared to US, we seem to be a bit further ahead when it comes to sustainability. Especially when it comes to food waste and climate consciousness, both among consumers and within the food industry... Compare this with President Trump's decision to withdraw from the Paris agreement a year ago... One thing that has influenced us at Karma is that we've had mission driven, competent and successful entrepreneurs, such as Niklas Adalberth founding Norrsken Foundation, drive the agenda of using entrepreneurship to build technologies that can solve social challenges on a global scale."*

- The social impact of a company plays an important role in how VCs invest, especially female VCs

## SOCIAL & ETHICAL IMPACT OF INVESTMENT

83%

% of European female VCs who agree that the potential social and ethical impact of a company plays a significant role in their decision to invest in a company. This compares to only 61% of male VCs.

Source: The State of European Tech Survey

# 03

## Diversity & Inclusion

### Perception and Reality

While the vast majority in Europe's tech ecosystem agrees diversity is a good thing, the community has a major diversity problem. Women and minorities are underrepresented at every level of the ecosystem. Corporate policy on diversity and inclusion still lags.

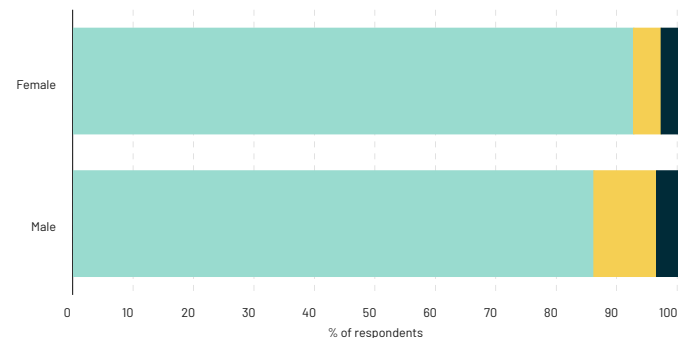
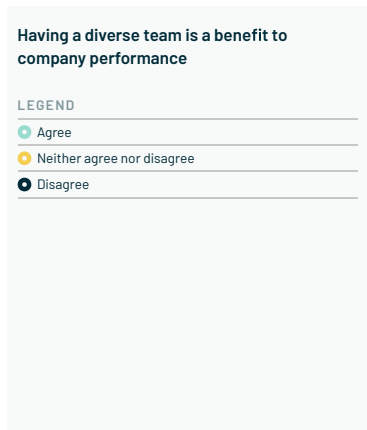
#### ARTICLES

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- 03.1 We've Got a Problem
- 03.2 We're All Part of the Problem
- 03.3 Accelerating Change

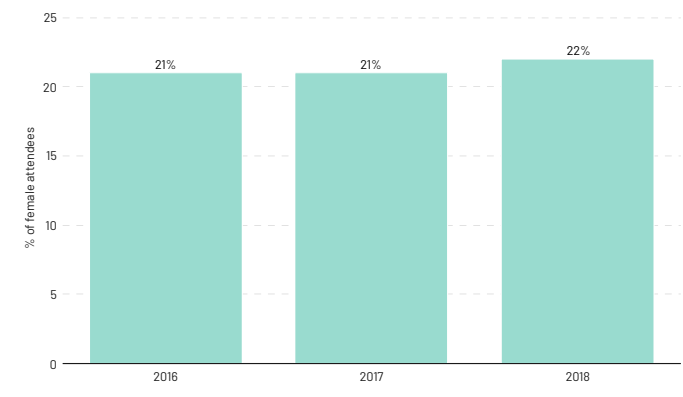
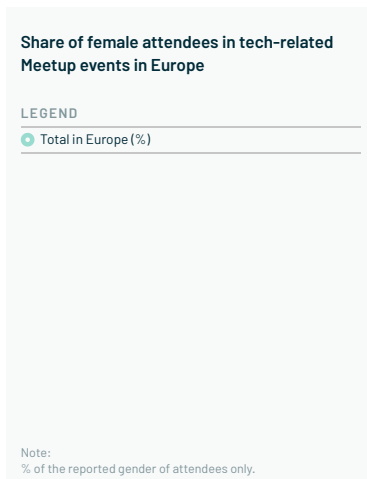
## We've Got a Problem

- No single question in the survey received a stronger level of agreement than this one. When asked if having a diverse team is a benefit to company performance, almost 90% of respondents agree. If the European tech ecosystem wants to achieve its full potential, then diversity and inclusion has to be at its core.



Source: The State of European Tech Survey

- The European tech community is dominated by men. Women account for just 22% of participants in tech-related Meetup events in the region. Notably, the industry is failing to make any meaningful progress, having seen an increase of just a single percentage point in the level of female participation at European tech community events in the past two years.



Source: Meetup

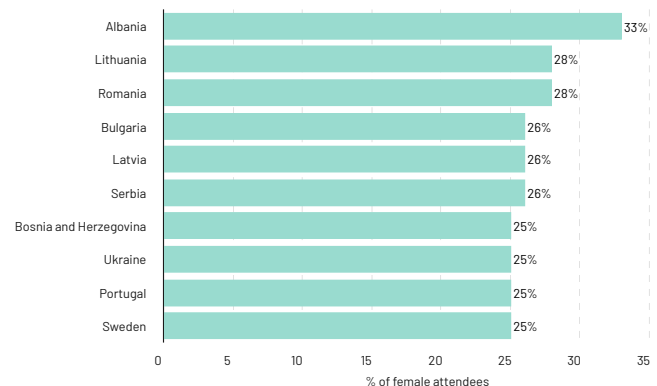
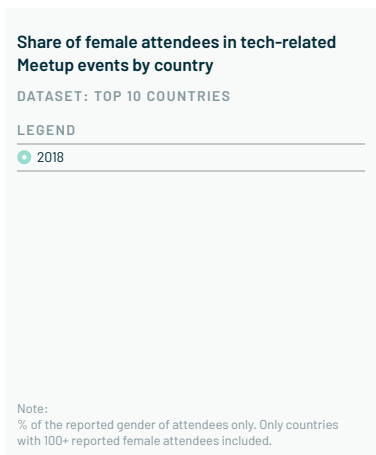


*Diversity is one of our core values. It's vital to our business and has been embedded from the beginning. Diverse teams are better for business, and better for creativity.*



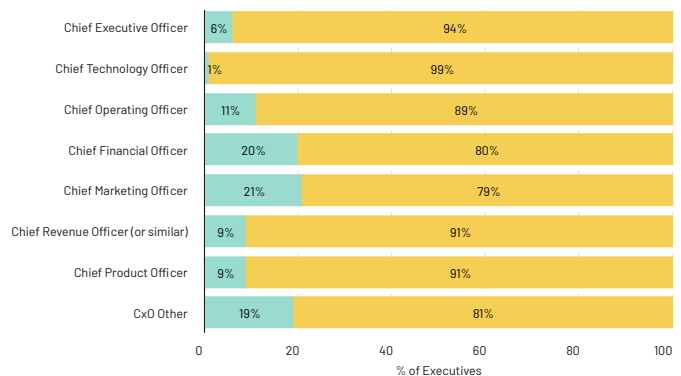
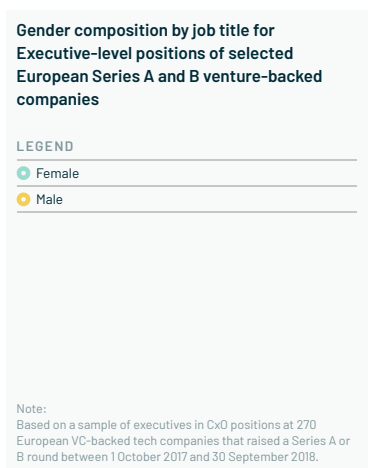
**Pip Jamieson**  
The Dots

- The gender imbalance of the tech communities within different countries follows the European-wide picture, though there are leaders and laggards. The top 10 countries for female participation at tech-related Meetup events across the region is dominated by countries from Eastern Europe, though it should be noted that female participation in the number one country, Albania, only reaches 33%.



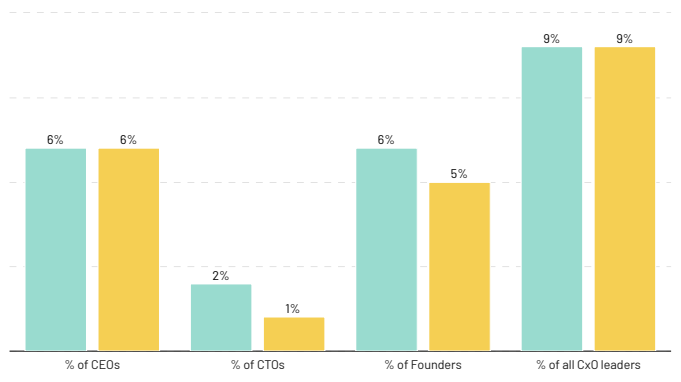
Source: *Meetup*

- We found only 1 female CTO out of 175 CTOs that work at VC-backed European tech companies that raised a Series A or Series B in the past year



Source: *Craft*

- The 'class of 2018' of VC-backed European tech companies shows no improvement compared to similar analysis from 2017



Source: *Craft*





*Europe is not necessarily tangibly better or worse than other tech hubs – however, given that Europe is such a diverse range of geographies and people this should be a key strength.*



**Check Warner**  
Diversity VC

*“Lack of diversity is driven by a combination of factors that affect the pipeline of talent in STEM subjects, the availability of diverse role models, access to expertise and capital, social mobility and a range of other issues. Europe is not necessarily tangibly better or worse than other tech hubs – however, given that Europe is such a diverse range of geographies and people this should be a key strength. I am encouraged to see the subject of diversity and inclusion appear on the agenda of more tech companies and more VCs over the last 12 months and to see so many funds participating in initiatives led by Diversity VC and others. I hope that this translates to sustained and impactful change – the first step though is understanding the situation as it is today, which is why Atomico’s commitment to this subject is so encouraging.”*

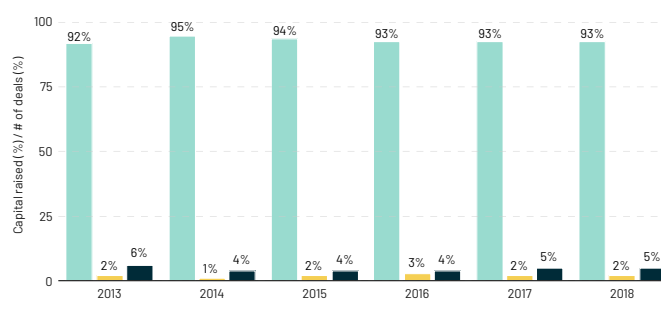
- The European tech industry’s lack of diversity could not be more stark when it comes to how funding is allocated in the region. It is arresting to see that all-male founding teams receive 93% of the capital invested and account for 85% of deals. It is even more stark to see that these shares have not changed in the last years.

**Capital raised and # of deals by founding team gender (%)**

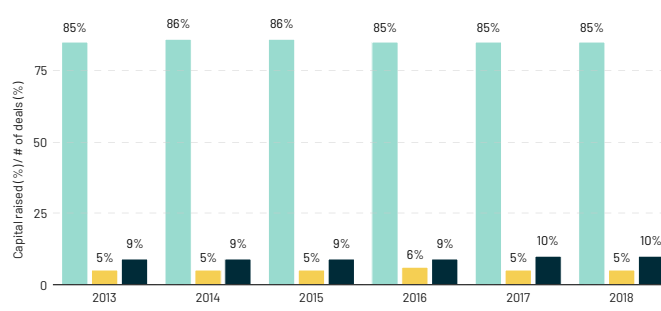
LEGEND

- Male
- Female
- Mixed

**DATASET: CAPITAL RAISED**



**DATASET: # OF DEALS**



Source: dealroom.CO

- There is shocking imbalance in the flow of capital to male versus female founders

## FUNDING DIVERSITY

93%

of all funds raised by European VC-backed companies in 2018 went to all-male founding teams.

Source:  dealroom.co

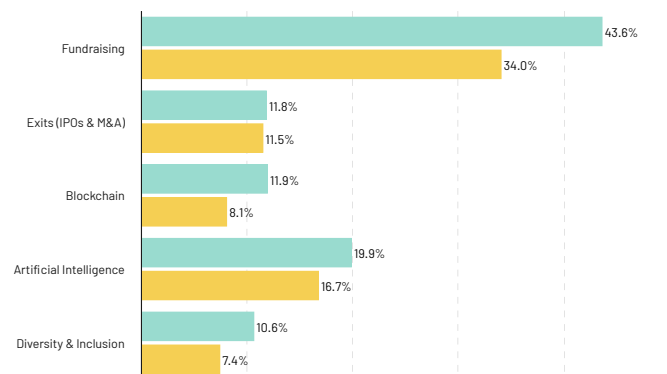
- The importance of diversity and inclusion has unquestionably gained an elevated prominence in the news narrative around the tech industry in Europe. But the level of discussion around this topic pales into insignificance relative to other core tech topics. In fact, in the past year, there have been more articles devoted to discussion of crypto than to diversity and inclusion in Europe. We have an opportunity to shine a much brighter spotlight on the problem.

### Share of total tech news narrative by topic area and region

#### LEGEND

- European news sources
- US news sources

Note:  
Based on ~3,000 stories across 843 European news sources (primarily UK focused) and ~2,700 stories across 1,103 US news sources from September 2017 to September 2018.



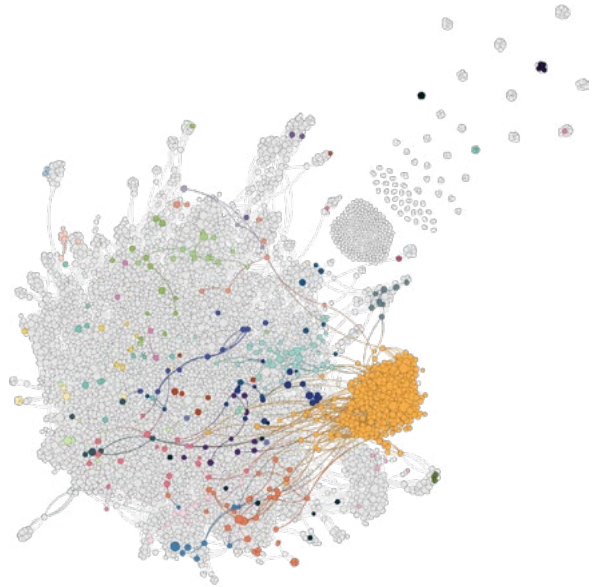
Source: The State of European Tech Survey

Quid



- Each node represents an article. Links connect articles sharing similar language. Clusters form when many articles share strong similarity, revealing topics.

**Blockchain: 11.91%**



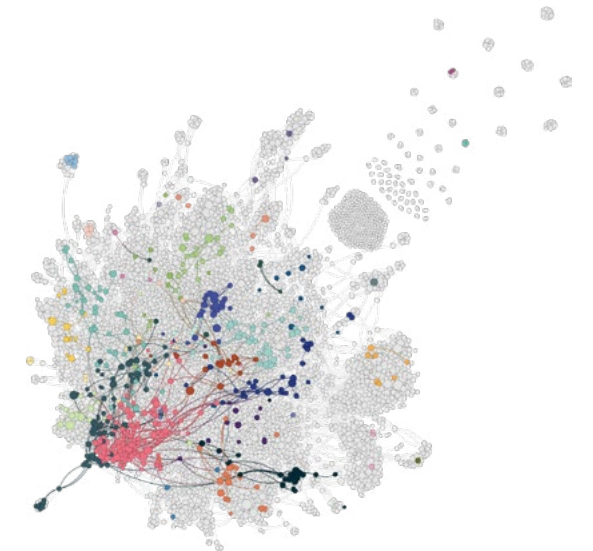
**Fundraising: 43.58%**



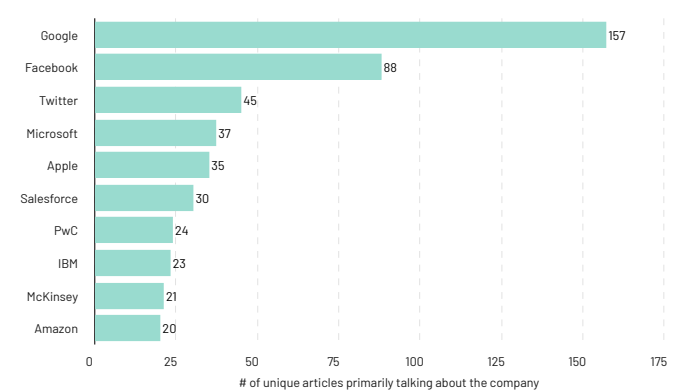
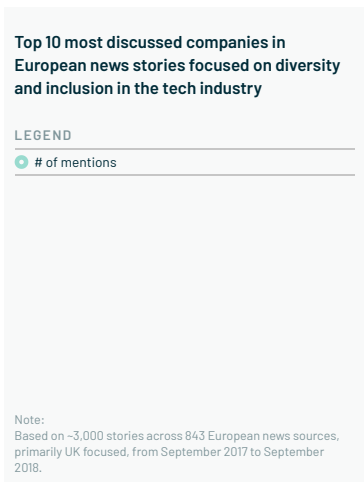
**Diversity, Discrimination,  
Harassment, Pay Equity, Women:  
10.62%**

Diversity: 3.8%  
Discrimination: 1.2%  
Harassment: 1.3%  
Pay Equity: 0.3%  
Women: 7.4%

Source: **Quid**

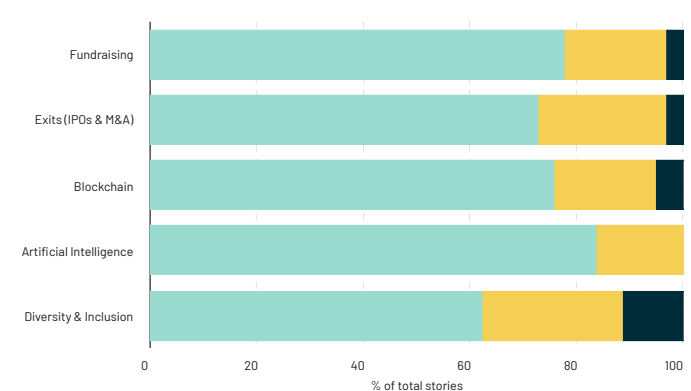
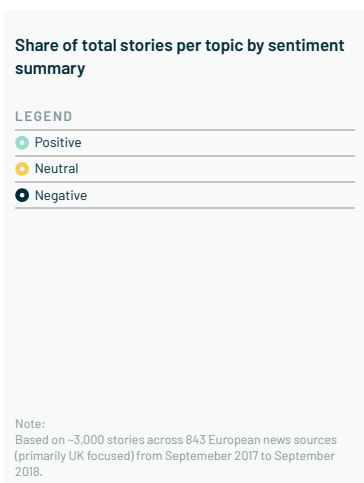


- Interestingly, the reporting we do see on diversity and inclusion in tech in European news sources is driven by US tech companies. There's a huge vacuum of European voices stepping into the discussion. We all have a responsibility to do and say much more.



Source: Quid

- Compared to other tech-related topics that gain large amounts of coverage in European news sources, it is notable that articles related to diversity and inclusion are more likely to be led by a negative sentiment.



Source: Quid





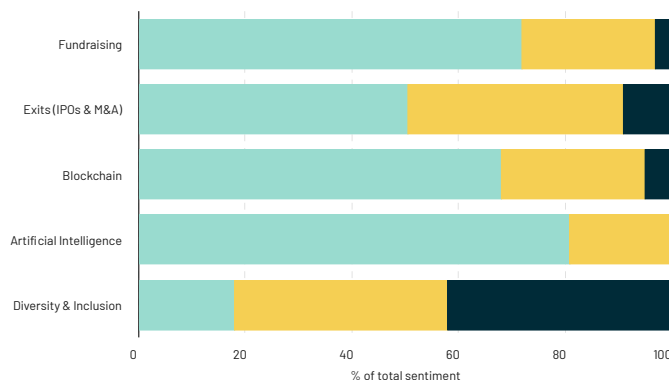
- Many stories on diversity and inclusion have a negative sentiment and they are more likely to drive more engagement on social media. In fact, news articles related to diversity and inclusion that are classified with a negative sentiment drive 42% of all social engagement around the topic as a whole, despite those same stories accounting for just 11% of everything written on the topic. Are we sending enough positive messages to underrepresented communities to join the tech industry, or are we in danger of further reinforcing the deeply entrenched stereotypes that have made tech so unwelcoming to these groups?

Share of total social engagement per topic by sentiment summary

LEGEND

- Positive
- Neutral
- Negative

Note:  
Based on ~3,000 stories across 843 European news sources (primarily UK focused) from September 2017 to September 2018.



Source: Quid



*The entire ecosystem as a whole needs to challenge itself to make concrete commitments and change.*



**Niklas Zennström**  
Atomico

*"Europe's VC industry is missing out on returns because we are lacking in diversity. Startups are missing out on performance because they lack diversity. That means both diversity in our teams and the founders that we back. This means diversity not just of gender, but in terms of background, race, ethnicity, physical and cognitive differences. The entire ecosystem as a whole needs to challenge itself to make concrete commitments and change."*

## We're All Part of the Problem

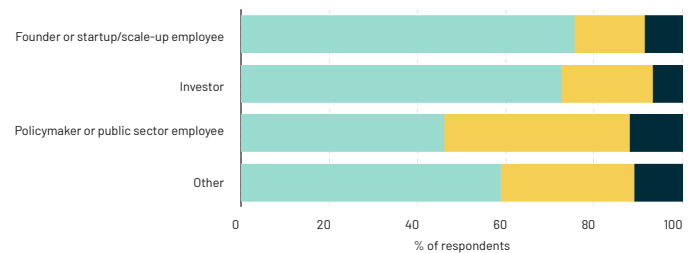
- Despite many voices in the industry taking a negative view on the level of inclusion in Europe's tech industry, people are much more likely to believe that the culture in their own companies is inclusive. In fact, more than three-quarters of founders or employees at Europe's private tech companies perceive their company's culture to be inclusive.

The culture at my tech company is inclusive

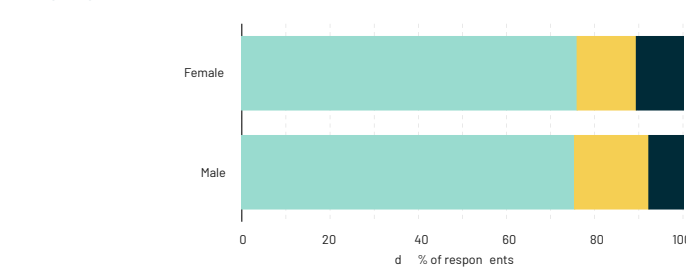
LEGEND

- Agree
- Neither agree nor disagree
- Disagree

DATASET: OCCUPATION



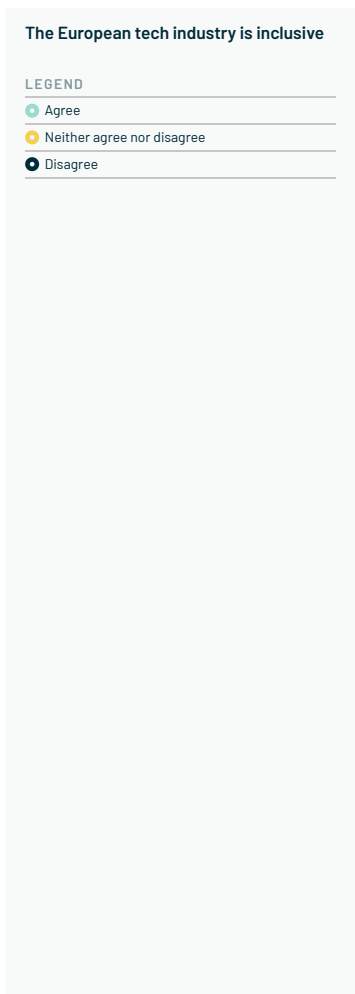
DATASET: GENDER



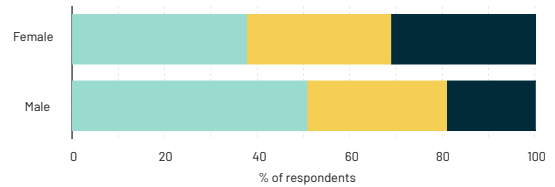
Source: The State of European Tech Survey



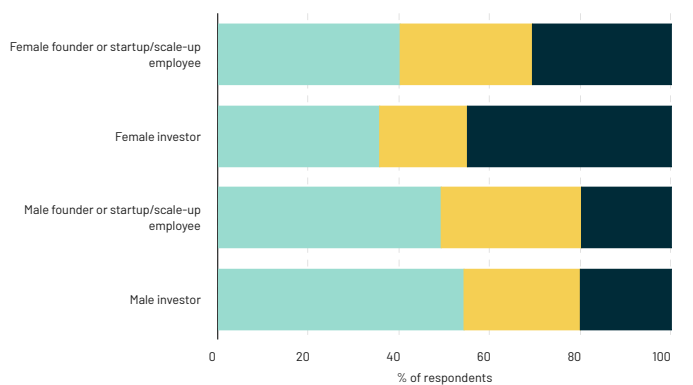
- People in the European tech ecosystem are split in their views on whether it is inclusive. While a majority of men think it is inclusive, only 38% of women agree. Female investors on the other hand, who are arguably able to take a broader view given the number of companies they meet, are much less positive, with 45% disagreeing that the industry is inclusive versus 36% that agree.



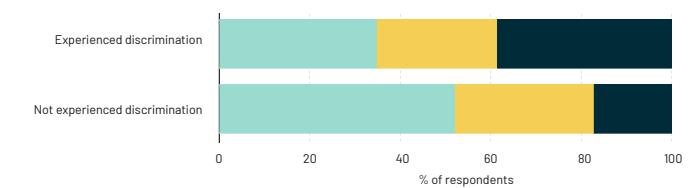
DATASET: GENDER



DATASET: FOUNDER/INVESTOR

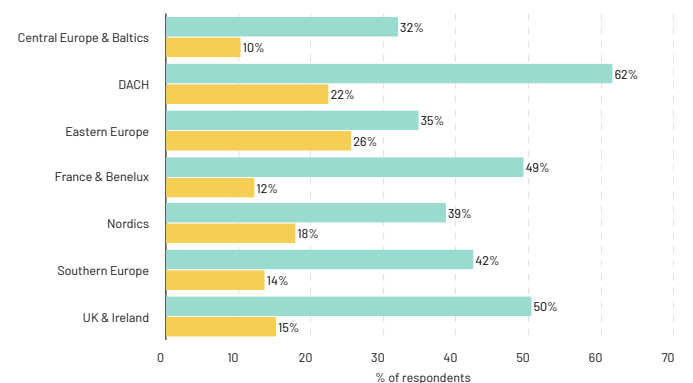
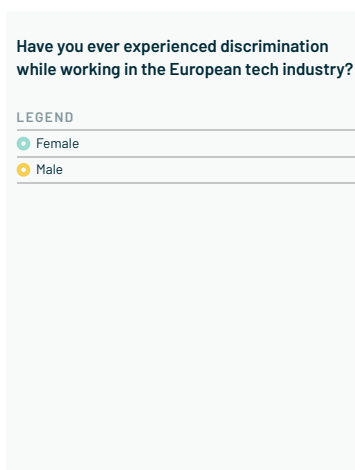


DATASET: EXPERIENCED DISCRIMINATION



Source: The State of European Tech Survey

- The industry's perception of its own inclusiveness is undermined by what survey respondents shared about their individual experiences of discrimination while working in European tech. 46% of women state that they have experienced discrimination.



Source: The State of European Tech Survey



- Women are experiencing an alarming level of discrimination in the European tech industry

## DISCRIMINATION IN THE EUROPEAN TECH INDUSTRY

# 46%

of female respondents have experienced some form of discrimination while working in the European tech industry

Source: The State of European Tech Survey

# 66

Companies are not looking widely and deeply enough for diverse talent. Founders need to take ownership of this as they scale.



"Diversity is a key challenge facing the tech ecosystem here in Europe, and it is ironic that more companies are not looking to address that challenge when talent is also such a key issue for them. Companies are not looking widely and deeply enough for diverse talent. Founders need to take ownership of this as they scale."

**Baroness Martha Lane Fox**  
Doteveryone

- Discrimination based on gender might be the most visible and quantifiable, but it is not the only form of discrimination that exists at worrying levels in the European tech ecosystem. A meaningful number of respondents have experienced discrimination based on age and ethnicity too. The survey can't accurately quantify the level of discrimination based on disability or sexual orientation, but the data points to these being very prevalent here too.

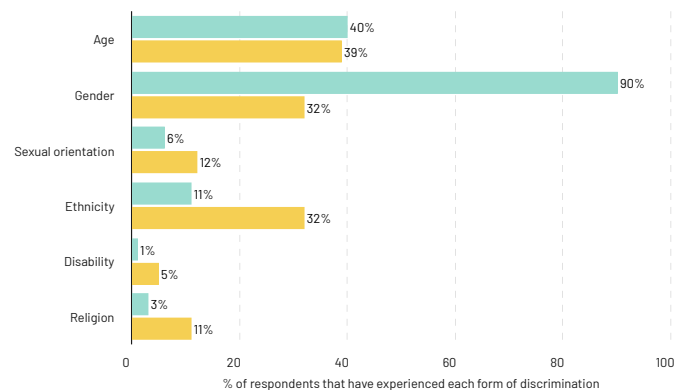
### Types of discrimination experienced by people who have experienced any form of it when working in European tech

#### LEGEND

- Female
- Male

#### Note:

The respondents' mix in self-identified ethnicity: 84% White, 5% Asian, 1% Black/African/Caribbean, 3% Mixed/Multiple, 2% Other, 4% Prefer not to say.



Source: The State of European Tech Survey

# 66

The underrepresentation of people from less privileged socio-economic backgrounds or persons with disabilities seems to be missing from the conversation entirely.



**Steve O'Hear**  
TechCrunch

"In Europe we have blindly imported Silicon Valley's conversation on diversity and inclusion, which is often too narrow in scope, and further marginalises other underrepresented groups or leaves itself vulnerable to accusations of identity politics. For example, the underrepresentation of people from less privileged socio-economic backgrounds or persons with disabilities seems to be missing from the conversation entirely."

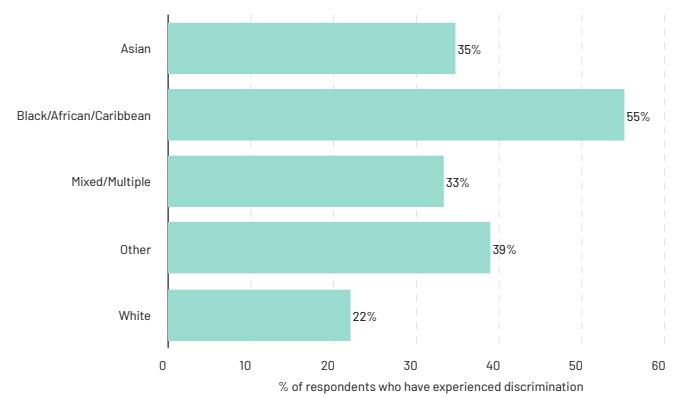
- This is exemplified by the fact that people of Black, African or Caribbean ethnicity that are working in the European tech ecosystem are more likely to have experienced discrimination than not.

#### Share of respondents who have experienced discrimination by self-defined ethnicity

##### LEGEND

- % of respondents who have experienced discrimination

Note:  
The sample size for all ethnicities is not large, but this fact itself tells a story of its own.

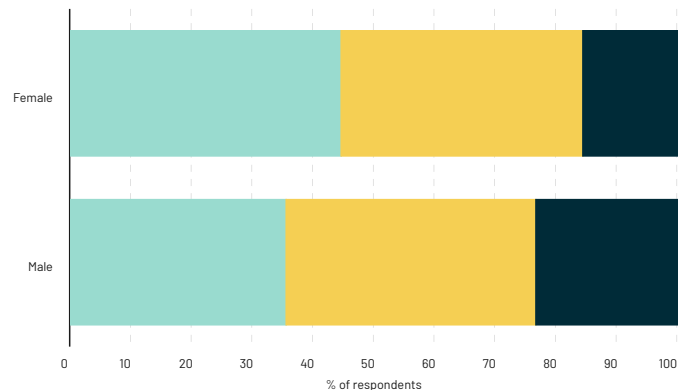
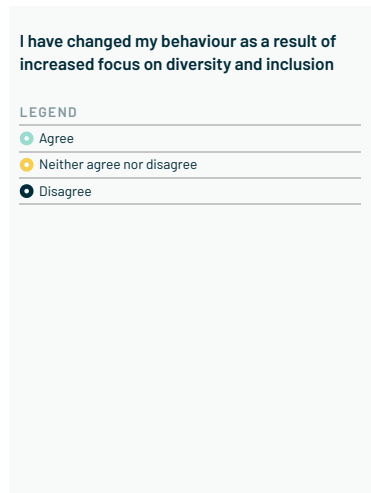


Source: The State of European Tech Survey



## Accelerating Change

- In the wake of high profile stories of discrimination in the tech industry, the issue of diversity and inclusion has seen an increased focus. According to many respondents, this changed how many now behave. 45% of women and 36% of men agree that they've made changes to their behaviour in the last 12 months.



Source: The State of European Tech Survey

66

Diversity of thinking and experience fuels innovation and drives market growth. To put it simply, diverse teams create better products and solutions



"At Klarna, we now have over 80 nationalities, with over 55 in our Stockholm HQ alone. I am amazed that we have somehow managed to attract such talented people from across the globe to this small city in the north with dark winters. Most of our employees have moved for their job and if the culture is not open or enabling people to speak their voice and feel like they can make an impact, diversity does not matter alone, if it's simply not inclusive and people will not stay or thrive. To scale and stay competitive in the tech industry, we benefit massively from experiences of people from many different types of backgrounds in building solutions. Diversity of thinking and experience fuels innovation and drives market growth. To put it simply, diverse teams create better products and solutions."

**Sebastian Siemiatkowski**  
Klarna

66

The key to diversity is giving more entrepreneurs the right keys to grow their companies because it will create new employers, role models and owners.



"By investing outside of the homogeneous networks of traditional venture capital we believe we can make great return and also drive change in society. The key to diversity is giving more entrepreneurs the right keys to grow their companies because it will create new employers, role models and owners."

**Sara Wimmercraz / Susanne Najafi**  
Backingminds



- One way to explore the extent to which the European tech industry is tackling diversity and inclusion is by examining the level of adoption of different policies that can help to enable a more diverse and inclusive company culture. Flexible working, for example, has a high level of adoption among European tech companies.

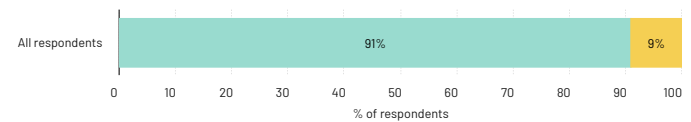
#### My company has a flexible working policy

##### LEGEND

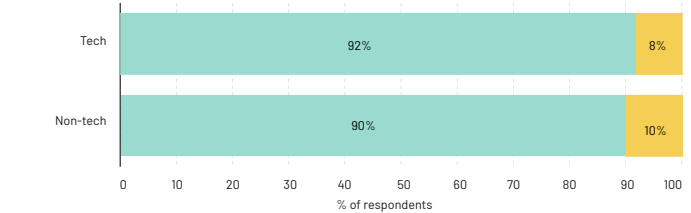
- Yes
- No

Note:  
Company size only includes founder and startup/scale-up employees.

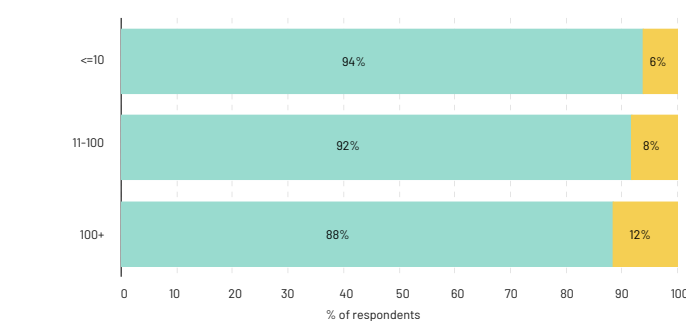
#### DATASET: ALL RESPONDENTS



#### DATASET: INDUSTRY

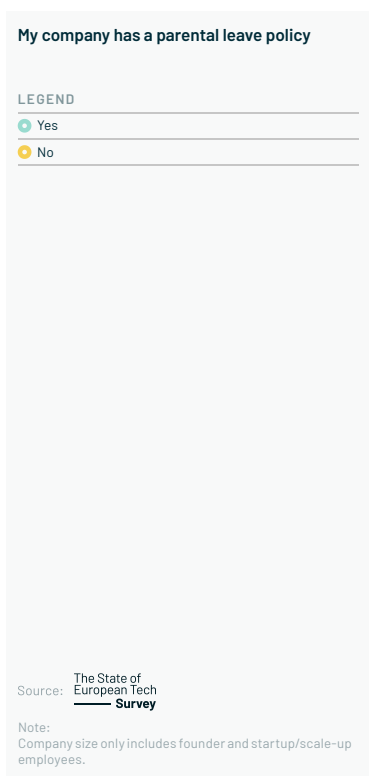


#### DATASET: COMPANY SIZE BY # OF EMPLOYEES

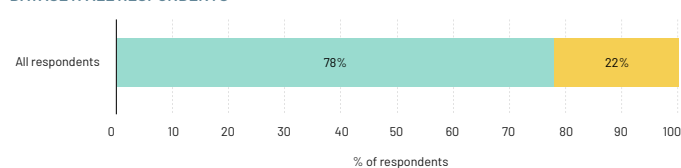


Source: The State of European Tech Survey

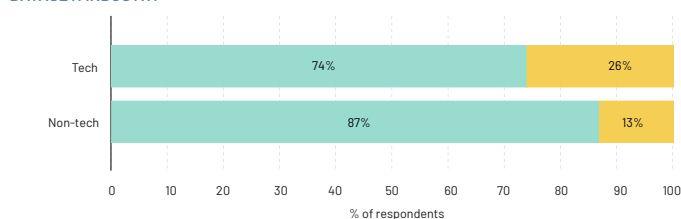
- Similarly, founders and employees of Europe's private tech startups and scale-ups report high levels of adoption of dedicated parental leave policies, though there is a marked difference based on company size. In fact, nearly 40% of companies that are still fewer than 10 employees have yet to put in place a parental leave policy



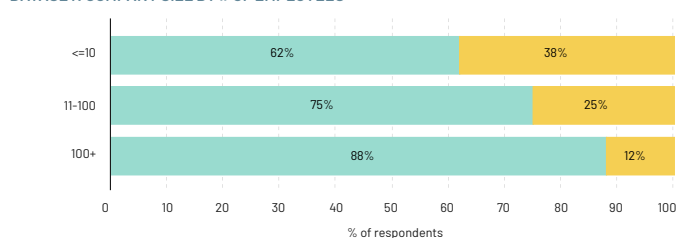
DATASET: ALL RESPONDENTS



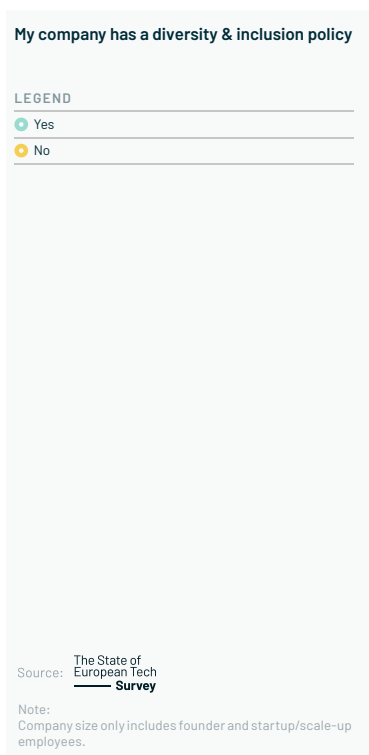
DATASET: INDUSTRY



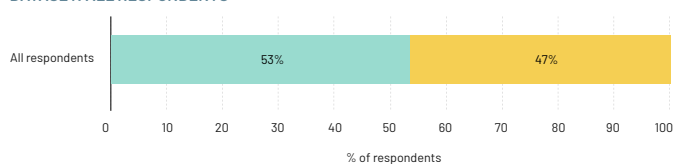
DATASET: COMPANY SIZE BY # OF EMPLOYEES



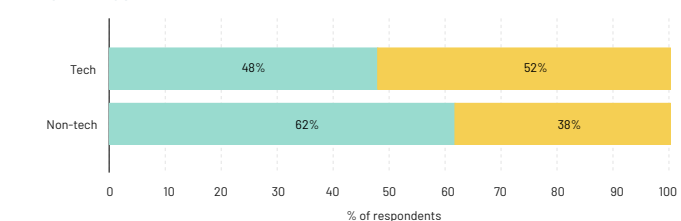
- Flexible working and parental leave policies are important steps towards enabling a more diverse workforce, but may not be sufficient on their own. Interestingly, a large percentage of companies, especially smaller ones, have not yet implemented an overall diversity and inclusion policy.



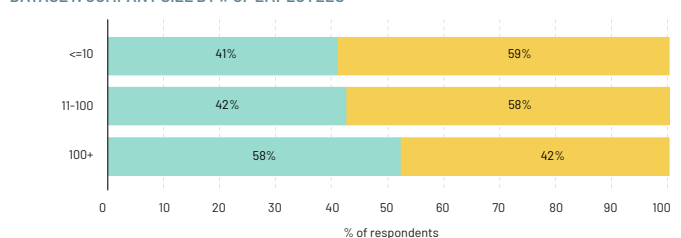
DATASET: ALL RESPONDENTS



DATASET: INDUSTRY



DATASET: COMPANY SIZE BY # OF EMPLOYEES

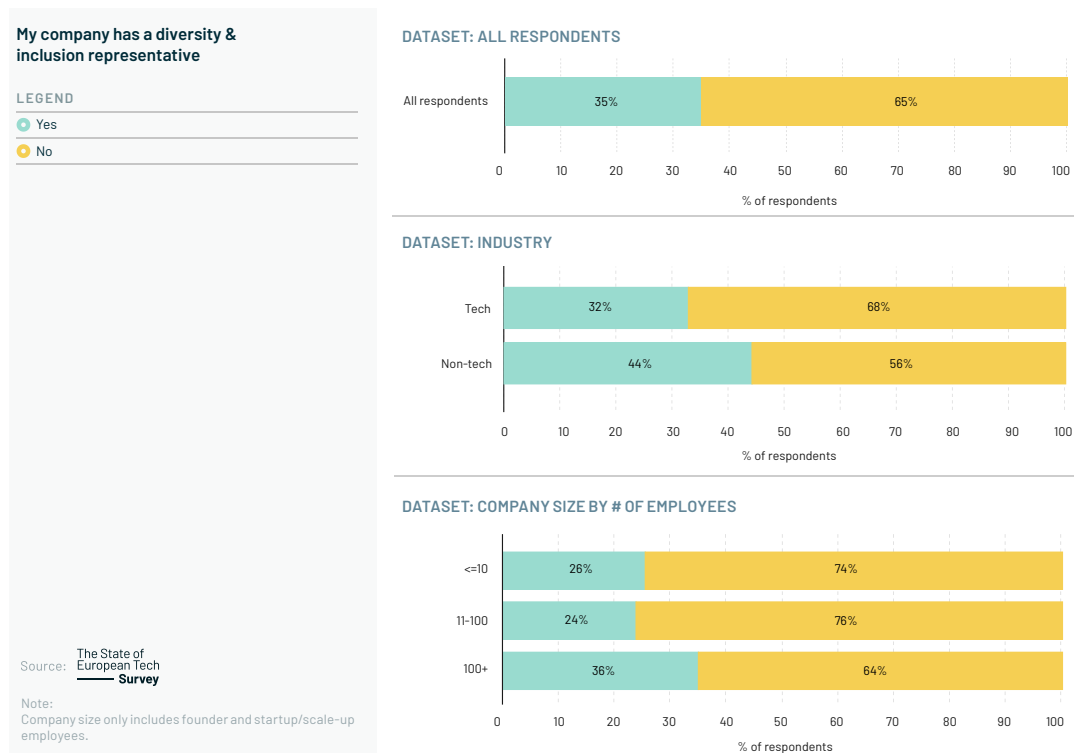




- Even more targeted initiatives, such as specific diversity & inclusion hiring policies, are still uncommon among European tech companies. It is clear here too that many companies appear to delay putting in place specific D&I policies until they scale to a large number of employees.



- The fact that such policies remain far from widespread in the European tech industries may be compounded by the fact that few companies have appointed dedicated D&I representatives.



- There are, of course, reasons to be optimistic about the possibility of achieving positive change in the European tech ecosystem. In the last 12 months, for example, there has been strong momentum around initiatives focused on improving Diversity & Inclusion in the European tech ecosystem. In the UK alone, Diversity VC has identified 28 separate initiatives that are all tackling diversity and inclusion in various different ways.

Selected Diversity & Inclusion Initiatives in the UK	Type of Initiative			URL
	Short description			
	AllBright	Angel group	Angel group and co-working club focussed on female founders	<a href="https://www.allbrightcollective.com/">https://www.allbrightcollective.com/</a>
	Angel Academe	Angel group	Angel group focused on female founders & angels	<a href="http://www.angelacademe.com/">http://www.angelacademe.com/</a>
	Astia Angels	Angel group	Angel group focused on female founders & angels	<a href="http://astia.org/astia-angels/">http://astia.org/astia-angels/</a>
	Rare Seed Capital	Angel group	Angel group focused on BAME investors	<a href="https://www.rareseedcapital.com/">https://www.rareseedcapital.com/</a>
	23 Code Street	Coding school	Teaching women in the UK and India	<a href="http://www.23codestreet.com/">http://www.23codestreet.com/</a>
	One Tech	Collective / network	Focussing on promoting entrepreneurship to BAME / female entrepreneurs	<a href="http://capitalenterprise.org/one-tech/">http://capitalenterprise.org/one-tech/</a>
	Hustle Crew	Community	Community for entrepreneurial women of colour	<a href="http://www.hustlecrew.co/">http://www.hustlecrew.co/</a>
	People of Color in Tech	Community	Community for entrepreneurial people of colour	<a href="https://peopleofcolorintech.com/">https://peopleofcolorintech.com/</a>
	Techish	Community	Podcast / community showcasing diverse tech rolemodels	<a href="http://www.techishpod.com/">http://www.techishpod.com/</a>
	YSYS	Community	Community group of diverse entrepreneurs	<a href="https://www.thisisysys.com/">https://www.thisisysys.com/</a>
	Accelerate Her	Company	Born out of Founders Forum, consulting fast growth tech companies	<a href="https://accelerateher.co/#/">https://accelerateher.co/#/</a>
	Inclusive Boards	Company	Helping recruit more ethnically diverse boards	<a href="http://www.inclusiveboards.co.uk/">http://www.inclusiveboards.co.uk/</a>
	Success Talks	Event series	Platform and event series showcasing diverse speakers	<a href="http://www.success-talks.co.uk/">http://www.success-talks.co.uk/</a>
	Jane VC	Fund	Fund focused on female founders	<a href="https://www.janevc.com/">https://www.janevc.com/</a>
	Merian Ventures	Fund	Fund focused on female founders	<a href="https://www.merianventures.com/">https://www.merianventures.com/</a>
	Voulez Capital	Fund	Fund focused on female founders	<a href="https://www.voulez-capital.com/">https://www.voulez-capital.com/</a>
	Backstage Capital	Fund / Accelerator	Accelerator in the UK focussed on LGBT, people of colour and female founders	<a href="https://backstagecapital.com/">https://backstagecapital.com/</a>
	Divinc	Incubator	Young Enterprise focused on inner city schools	<a href="http://wearedivinc.com/">http://wearedivinc.com/</a>
	Muslimic Makers	Meet-up group	Meet-up group for Muslims in Tech	<a href="https://muslimicmakers.com/">https://muslimicmakers.com/</a>
	50/50 Pledge	Network	A pledge for events and conferences to be 50:50 represented	<a href="http://www.5050pledge.com/">http://www.5050pledge.com/</a>
	FemStreet	Newsletter	Start-ups / VC	<a href="https://www.femstreet.com/">https://www.femstreet.com/</a>
	30% Club	Non-profit	Dedicated to increasing women on boards	<a href="https://30percentclub.org/">https://30percentclub.org/</a>
	Code First: Girls	Non-profit	Non-profit teaching women how to code and helping them get work in tech companies	<a href="https://www.codefirstgirls.org.uk/">https://www.codefirstgirls.org.uk/</a>
	Color in Tech	Non-profit	Non-profit promoting a fairer tech industry	<a href="https://www.colorintech.org/">https://www.colorintech.org/</a>
	DevelopHer	Non-profit	Non-profit social enterprise promoting women in technology	<a href="https://developher.org/">https://developher.org/</a>
	Dot Everyone	Non-profit	Focused on tech companies	<a href="https://doteveryone.org.uk/">https://doteveryone.org.uk/</a>
	Level 20	Non-profit	Focused mainly on women in the Private Equity and LP community	<a href="https://www.level20.org/">https://www.level20.org/</a>
	Fearless Futures	Training group	Training focussed on Social Justice	<a href="http://www.fearlessfutures.org/">http://www.fearlessfutures.org/</a>

Note:  
This list is illustrative and not exhaustive. If you would like to add your initiatives to this list, please contact us at [research@atomico.com](mailto:research@atomico.com) and we will update the list.

Source: DIVERSITY VC



Our users are at the core of everything we do, and we've hired a diverse team to reflect our growing customer base.



**Sharmadean Reid**  
Beautystack





# Europe's Got Talent

## People, Competition and Movement

One of European tech's greatest strengths is its deep talent pool. A growing number of tech hubs are distributed across all corners of the region. They are connected by flows of Europeans and non-Europeans alike. Finally, a bright, new generation is emerging; European founders are returning from the Valley, and students are seizing the opportunity to found their own startups.

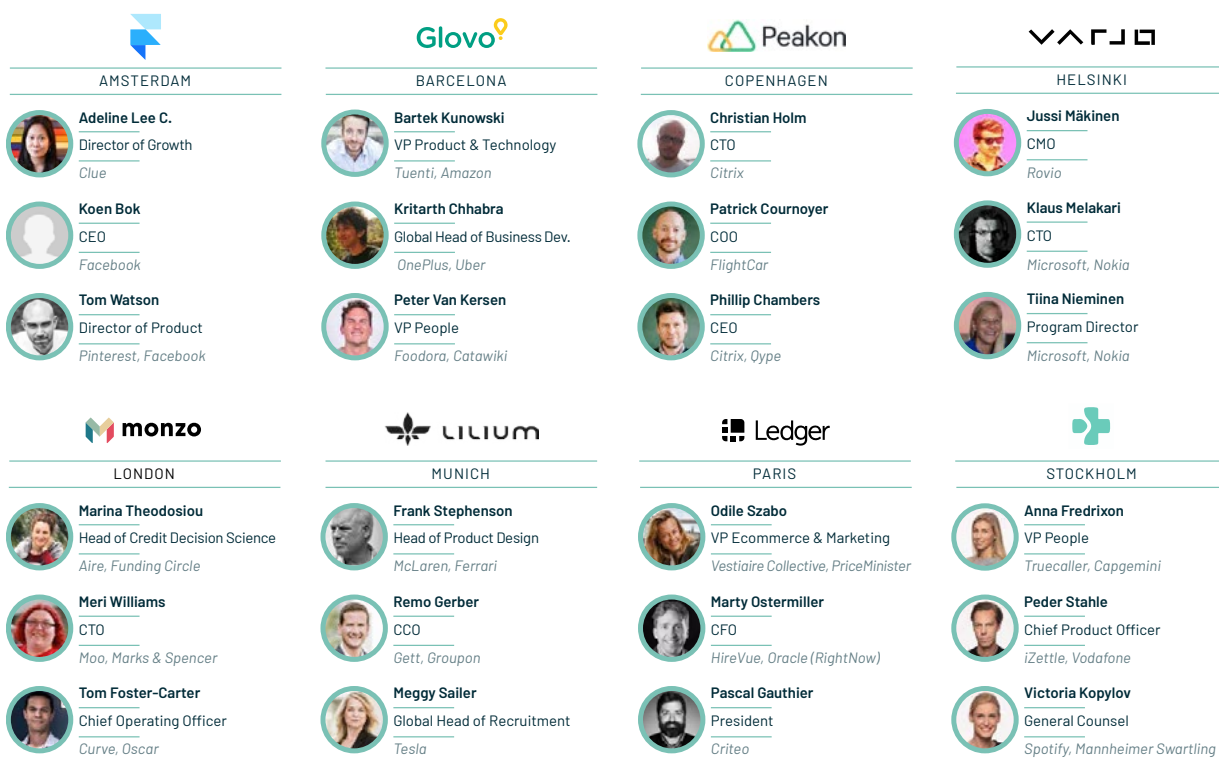
### ARTICLES

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- 04.1 People Power
- 04.2 People Flows
- 04.3 An Ecosystem Powered by Migratory Talent
- 04.4 Competing for & Compensating Talent
- 04.5 The Next Generation

## People Power

- The next generation of European tech companies from hubs across the region are being built by experienced tech talent from previous generations



Note:

This is intended as a representative selection of experienced talent that is gained experience in previous European tech companies and is now helping to build a new generation of companies. It should not be considered complete.

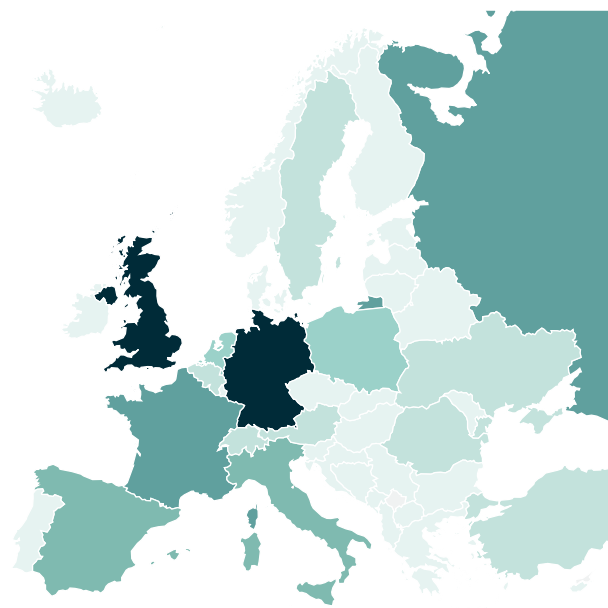
- Europe's professional developer talent pool is distributed across all corners of the region

Map of professional developer distribution across Europe by country

#### LEGEND

- upto 850,400
- 680,320 to 765,360
- 595,280 to 680,320
- 510,240 to 595,280
- 425,200 to 510,240
- 340,160 to 425,200
- 255,120 to 340,160
- 170,080 to 255,120
- 85,040 to 170,080
- upto 85,040

Source: stackoverflow



- Europe's professional developer workforce continues to grow strongly

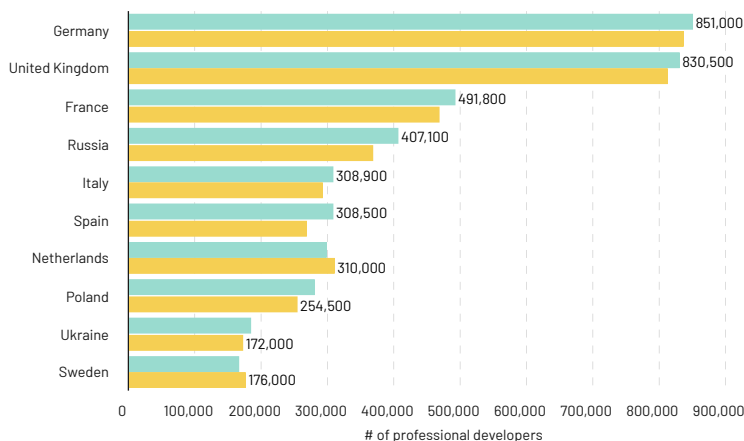
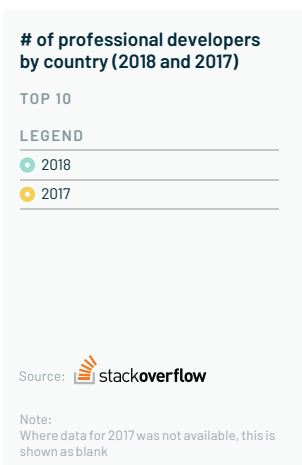
## PROFESSIONAL DEVELOPER TALENT POOL

# 5.7m

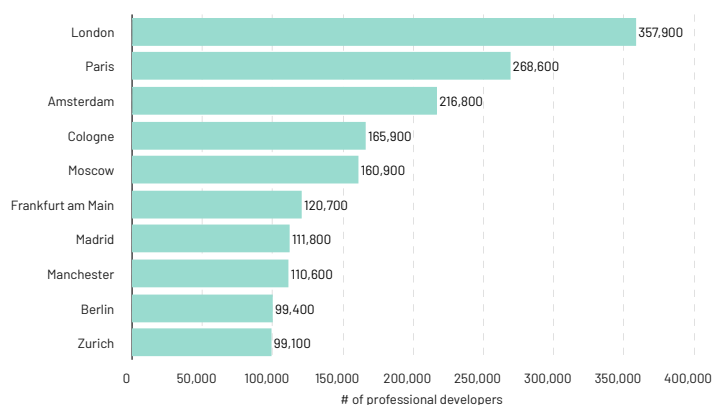
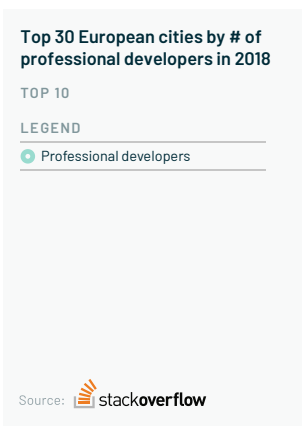
professional developers in Europe, which represents growth of 200,000 compared to 5.5 million in 2017. This also compares to 4.4 million in the US, a number that stayed flat year on year.

Source:  stackoverflow

- Germany, Europe's largest country by population, is also home to the region's largest single market for professional developer talent, followed very closely by the UK and then France in a more distant third place



- Europe is home to at least 30 different hubs with 50,000 or more professional developers. Its three largest hubs for developers are London, Paris and Amsterdam, which together are home to about 15% of the region's total developers.



- Germany's largest hubs for professional developers might surprise you

## PROFESSIONAL DEVELOPER TALENT POOL

# 165,900

professional developers in Cologne, Germany's largest hub for engineering talent

Source:  stackoverflow

## People Flows

- The UK is the number one destination for all international movers into the European tech ecosystem, but it is closely followed now by Germany and then France.

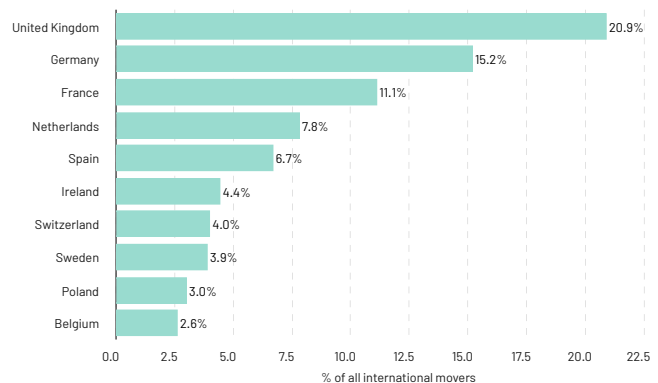
### Top 10 European destinations for all international movers into European tech in 2018

#### LEGEND

- Top 10 Destinations - 2018

#### Note:

All interpretations of the LinkedIn data are made by Atomico, not LinkedIn. A 'mover' is defined by LinkedIn as somebody now working in the tech industry that has moved country or industry sector for their primary employment between 2018 and 2017.



Source: [LinkedIn](#)

- For additional context, it is worth analysing a similar dataset covering tech talent movement in 2017 provided by LinkedIn for last year's State of European Tech.

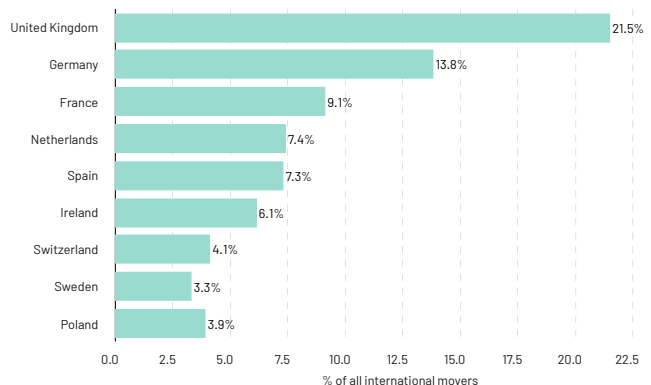
### Top 10 European destinations for all international movers into European tech in 2017

#### LEGEND

- Comparison to Similar Data from SOET 2017

#### Note:

All interpretations of the LinkedIn data are made by Atomico, not LinkedIn. A 'mover' is defined by LinkedIn as someone now working in the tech industry that has moved country for their primary employment between 2017 & 2016. Belgium not provided in 2017.



Source: [LinkedIn](#)

- Germany and UK are now the joint top destinations for migratory tech talent moving within the European tech industry

### MIGRANT TALENT IN EUROPEAN TECH

# 14.6%

The same % of all intra European movers within the European tech industry end in either Germany or the UK as their destination country.

Source: [stackoverflow](#)

- Looking more closely at just intra-European migratory tech talent moving within the region, Germany is now the joint #1 destination together with the UK

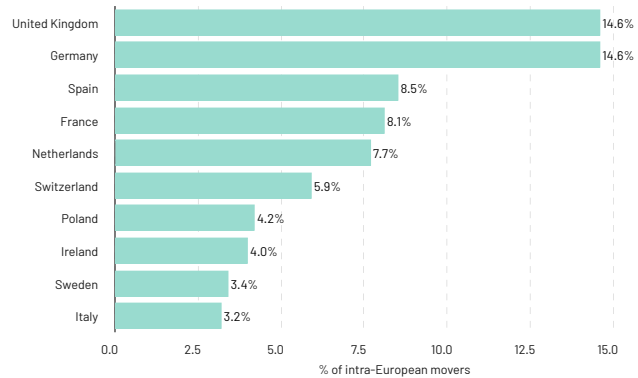
#### Top 10 European destinations for intra-European movers within European tech industry in 2018

##### LEGEND

- Top 10 destinations in 2018

##### Note:

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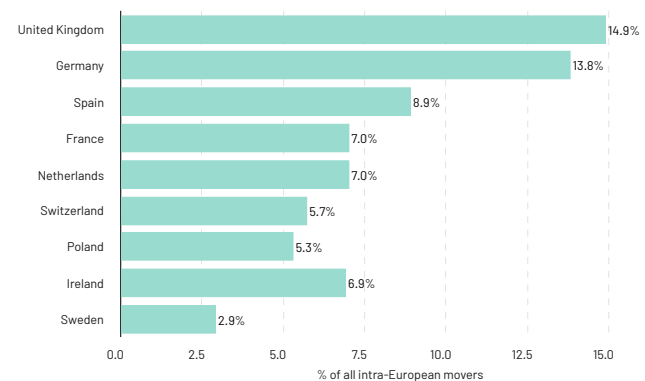
#### Top 10 European destinations for intra-European movers within European tech industry in 2017

##### LEGEND

- Comparison to Similar Data from SOET 2017

##### Note:

All interpretations of the LinkedIn data are made by Atomico, not LinkedIn. A 'mover' is defined by LinkedIn as someone now working in the tech industry that has moved country for their primary employment between 2017 & 2016. Italy not provided in 2017.



Source: [LinkedIn](#)

- The US is the largest destination of European tech talent moving outside of the region, but other destinations are now important too, such as Canada and Australia.

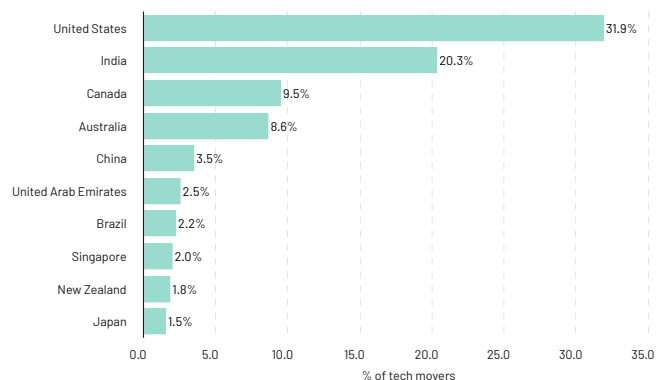
#### Top 10 non-European destinations for European movers out of European tech in 2018

##### LEGEND

- Top 10 Destinations - 2018

##### Note:

All interpretations of the LinkedIn data are made by Atomico, not LinkedIn. A 'mover' is defined by LinkedIn as somebody now working in the tech industry that has moved country or industry sector for their primary employment between 2018 and 2017.



Source: [LinkedIn](#)

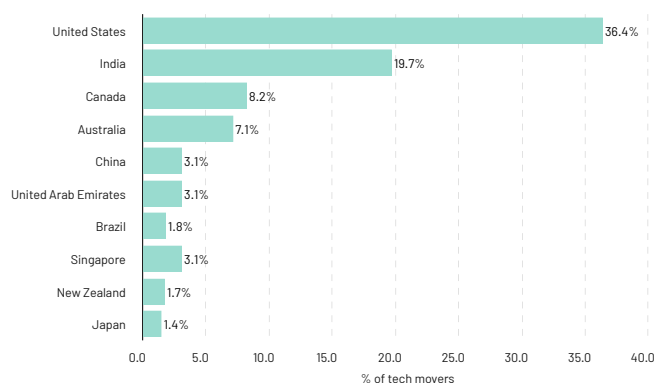
- For additional context, it is worth analysing a similar dataset covering tech talent movement in 2017 provided by LinkedIn for last year's State of European Tech.

#### Top 10 non-European destinations for European movers out of European tech in 2017

##### LEGEND

- Comparison to Similar Data from SOET 2017

Note:  
All interpretations of the LinkedIn data are made by Atomico, not LinkedIn. A 'mover' is defined by LinkedIn as somebody now working in the tech industry that has moved country for their primary employment between 2017 and 2018.

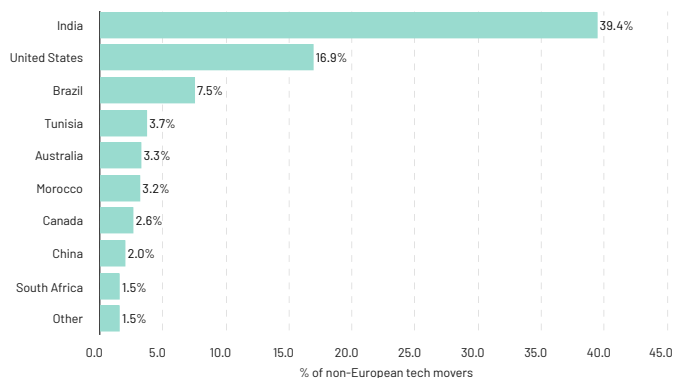


Source: [LinkedIn](#)

- India and the US account for more than 50% of the non-European talent moving into the European tech industry.

#### Top 10 non-European source countries for movers into the European tech industry

Note:  
All interpretations of the LinkedIn data are made by Atomico, not LinkedIn. A 'mover' is defined by LinkedIn as somebody now working in the tech industry that has moved country or industry sector for their primary employment between 2018 and 2017.

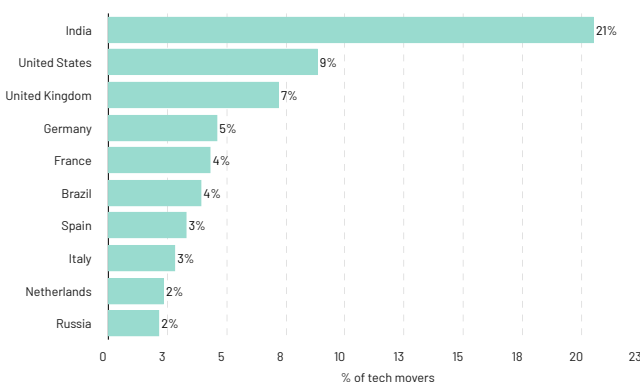


Source: [LinkedIn](#)

- India and the US are more important sources of migratory talent moving into and within the European tech industry than any single European source country.

#### Top 10 source countries for all movers into and within the European tech industry

Note:  
All interpretations of the LinkedIn data are made by Atomico, not LinkedIn. A 'mover' is defined by LinkedIn as somebody now working in the tech industry that has moved country or industry sector for their primary employment between 2018 and 2017.



Source: [LinkedIn](#)

- The UK has seen a huge increase in the % of software engineer job postings that are defined as 'hard to fill'

## COMPETITION FOR TALENT

# 42%

increase year-on-year in the % of software engineer job postings in the UK that are hard to fill, i.e. are posted for longer than 60 days in Indeed's UK job site

Source: **indeed**



*As every company becomes a software company and the need for software engineers and other tech roles continues to grow, it will be even more crucial for companies of all sizes look to solutions that will help them hire quality candidates and to close the talent gap in tech.*



**Raj Mukherjee**  
Indeed

*"People want to work at a company that has a mission they believe in. No longer is talent just driven by compensation. Though we still see that salary is a key factor candidates consider when evaluating an offer, we also see candidates caring more about job location, work flexibility, a good work environment, and meaningful work. As every company becomes a software company and the need for software engineers and other tech roles continues to grow, it will be even more crucial for companies of all sizes look to solutions that will help them hire quality candidates and to close the talent gap in tech."*

- World-class talent is moving to and returning to Europe from the US to help build a new generation of European tech companies



**Barrie Seidenberg**  
CEO  
Notonthehighstreet  
London  
Tripadvisor, Viator



**Caralyn Cooley**  
Chief People Officer  
Nordeus  
Belgrade  
Jet.com, Amazon, Pepsi



**Charles Gorintin**  
CTO  
Alan  
Paris  
Facebook, Twitter



**Ephraim Luft**  
CPO  
Farfetch  
London  
POPSUGAR, Circle of Moms, Microsoft



**Mark Tsimelzon**  
Chief Engineering Officer  
Babylon  
London  
Synapse, Yahoo



**Marty Ostermiller**  
CFO  
Ledger  
Paris  
HireVue, Baliho, RightNow/Oracle



**Michael Todd**  
Chief Scientist  
Deliveroo  
London  
Netflix



**Mike Hudack**  
CTO  
Deliveroo  
London  
Facebook



**John Harrsen**  
VP Cloud Product Management  
Graphcore  
Bristol  
Cavium, Broadcom, Bay Microsystems



**Peter Mansour**  
CPO  
Hotelbeds.com  
Palma  
Infospace, eBay, Microsoft



**Peter Wilson**  
VP Engineering  
Blockchain.com  
London  
Google, Facebook



**Rohan Pradhan**  
COO  
Deliveroo  
London  
Amazon



**Suzanne Johnson**  
VP Marketing  
Shift Technology  
Paris  
Akamai, Adobe



**Tom Watson**  
Director of Product  
Framer  
Amsterdam  
Pinterest, Facebook



**Vinay Ramani**  
CPO  
Pipedrive  
London  
Google, Uber

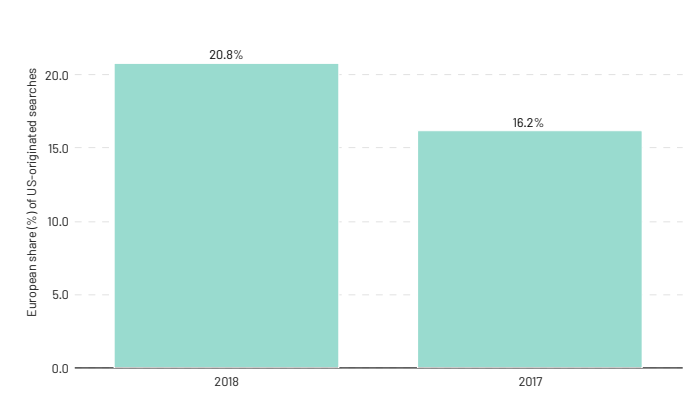
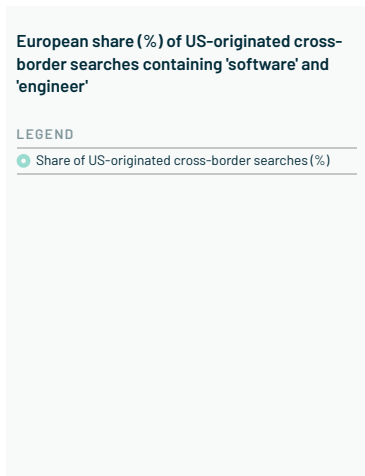


**Virginie Haas**  
CRO  
Shift Technology  
Paris  
IBM

Note:  
This is intended as a representative selection of talent that has moved to Europe from the US and should not be considered complete.

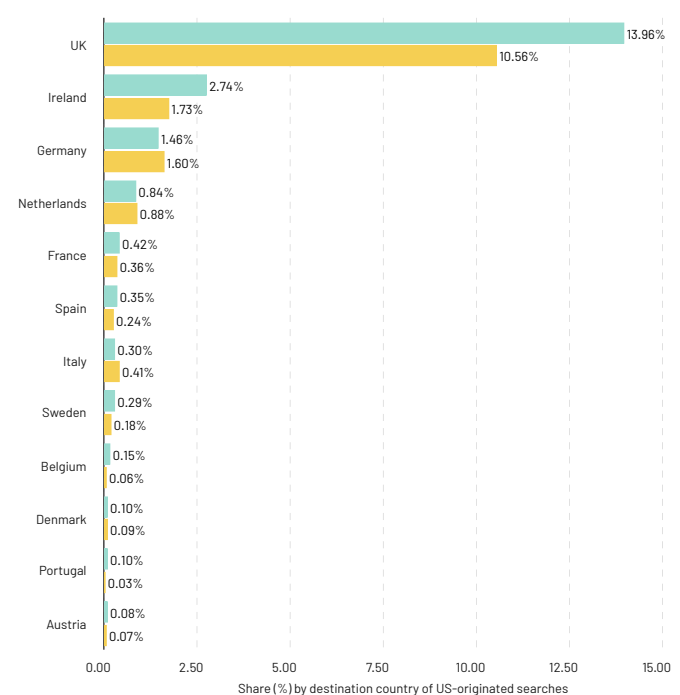
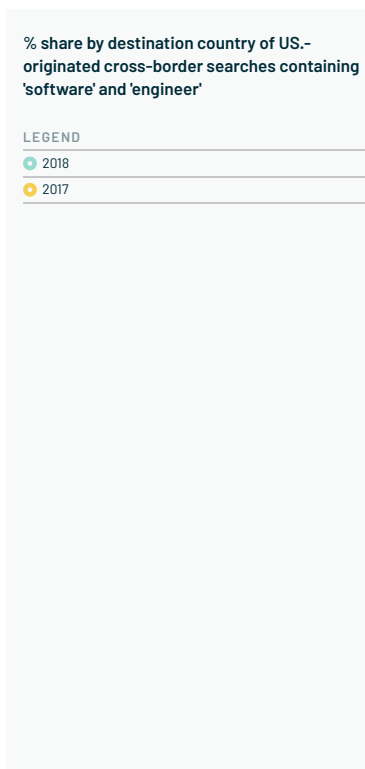


- Europe is growing as a destination of choice for US software engineers searching for software engineer roles overseas, and now accounts for more than 20% of all cross-border searches, up 20% compared with 2017.



Source: **indeed**

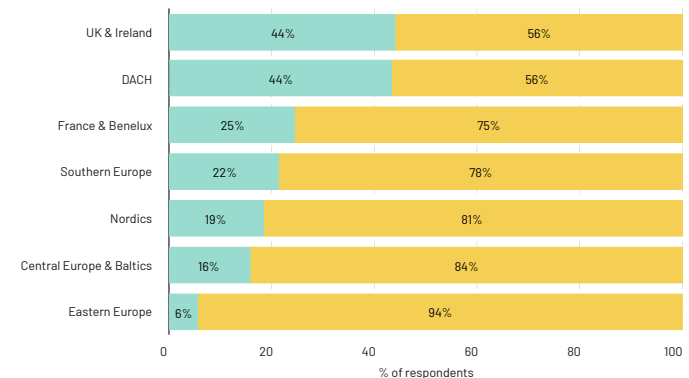
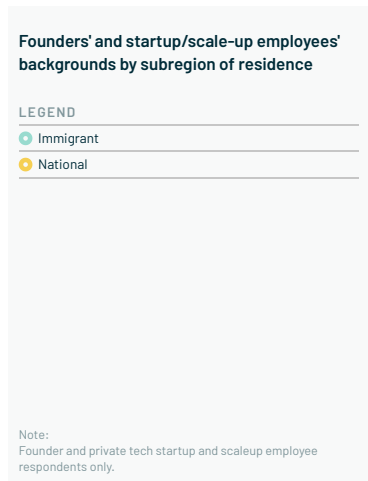
- The UK is the clear destination country of choice for US software engineers searching for potential job postings in the European tech ecosystem.



Source: **indeed**

## An Ecosystem Powered by Migratory Talent

- By comparing the nationality of survey respondents with their country of residence, it's possible to get a proxy for the relative share of migrant talent in different regions in Europe. The UK and Germany, led by London and Berlin, are the two most dependent on migrant talent.



Source: The State of European Tech Survey

- The UK tech ecosystem is the most heavily dependent on migrant talent of any in Europe

### MIGRANT TALENT IN EUROPEAN TECH

44%

of founders and employees of private tech start-ups in the UK are migrants, more than any other region

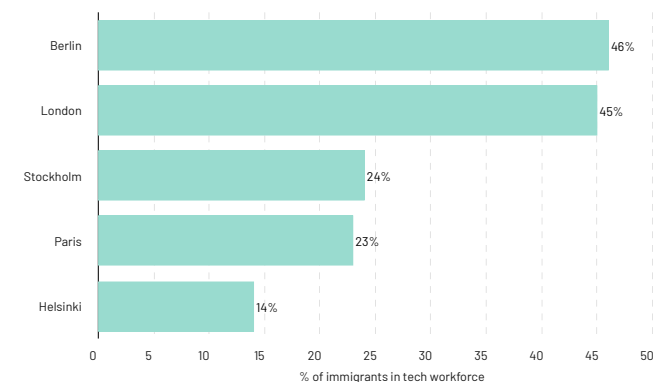
- European tech startups are highly dependent on talent that has migrated to work for companies outside their home countries

### MIGRANT TALENT IN EUROPEAN TECH

28%

of founders and employees of private European tech startups who are working outside of their home countries

- Roughly half of the tech workforce has come from abroad in four European hubs.



Source: The State of European Tech Survey

- The UK is the #1 source of outbound talent leaving to move to out of Europe, accounting for nearly 2.8x as much outbound talent as the next largest source country in Europe.

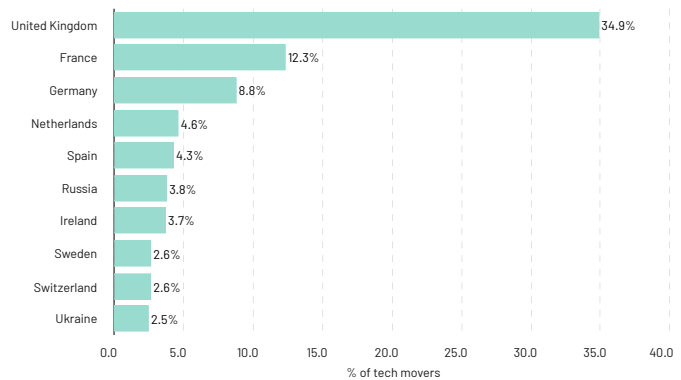
#### Top 10 European source countries for non-European destinations in 2018

##### LEGEND

- Top 10 Sources - 2018

##### Note:

All interpretations of the LinkedIn data are made by Atomico, not LinkedIn. A 'mover' is defined by LinkedIn as somebody now working in the tech industry that has moved country or industry sector for their primary employment between 2018 and 2017.



Source: [LinkedIn](#)

- For additional context, it is worth analysing a similar dataset covering tech talent movement in 2017 provided by LinkedIn for last year's State of European Tech.

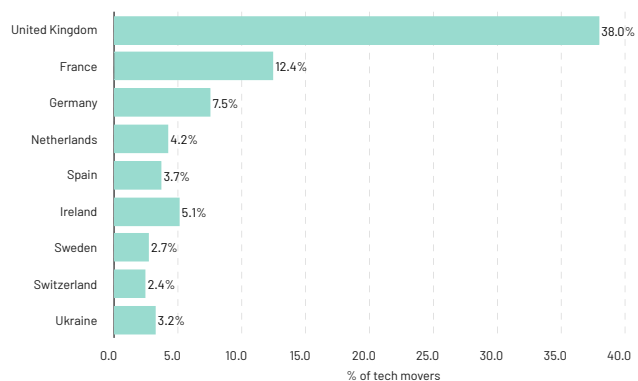
#### Top 10 European source countries for non-European destinations in 2017

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- Comparison to Similar Data from SOET 2017

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Source: [LinkedIn](#)



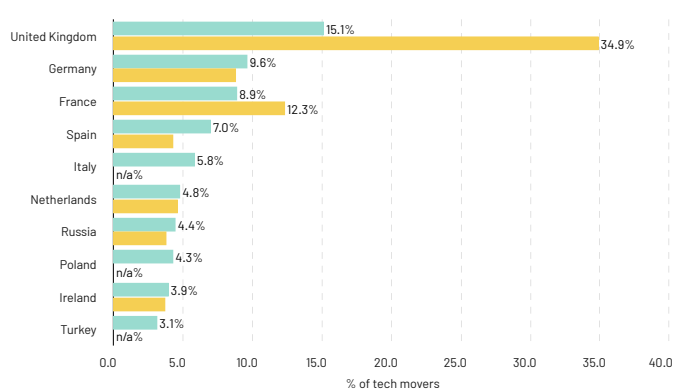
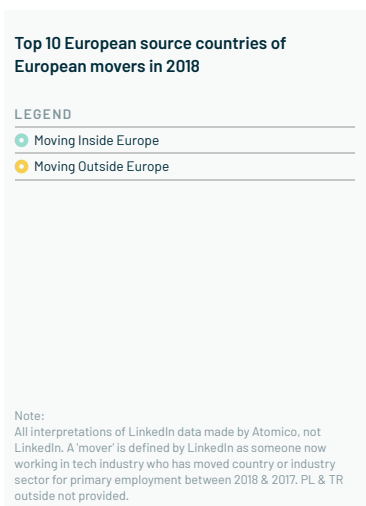
*Skilled immigration difficulties are taking a toll on Europe's scaleups, and we are in bad need of more openness in terms of talent acquisition.*



**Rasmus Ekholm**  
Slush

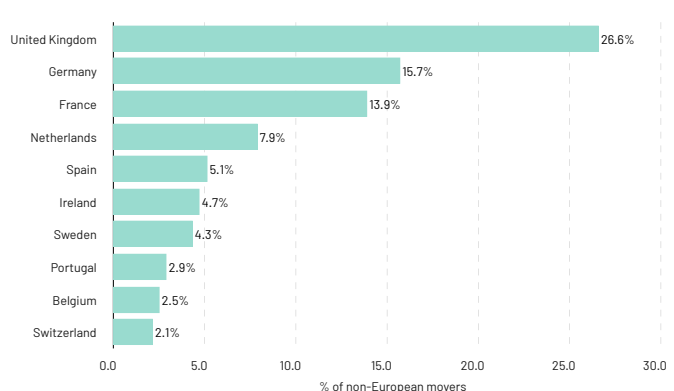
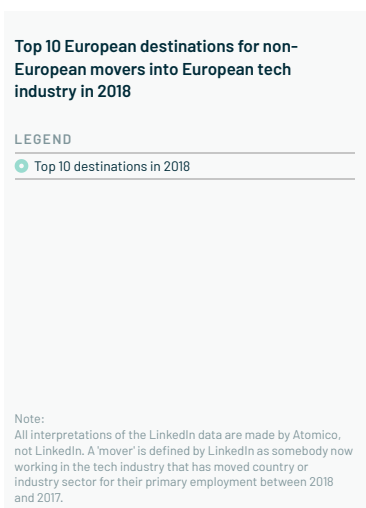
*"I see two major threats, the first one being education and talent. Europe is among the top in terms of talent & research, but it shouldn't be taken for granted. The challenge is that if we don't see forward-thinking, long-term and brave investments in the field of education, we might lose this edge that's keeping Europe on the surface. Skilled immigration difficulties are taking a toll on Europe's scaleups, and we are in bad need of more openness in terms of talent acquisition - startup visas being great initiatives towards solving this problem."*

- The UK is the #1 source country for tech talent that is moving within and out of Europe, but it has a much larger share of those moving outside of the European tech ecosystem than within it.



Source: [LinkedIn](#)

- The UK is today the #1 destination for non-European talent, but faces strong challenges as the destination of choice as the range of viable alternative hubs across Europe expands, especially in Germany, France and the Netherlands.



Source: [LinkedIn](#)

66

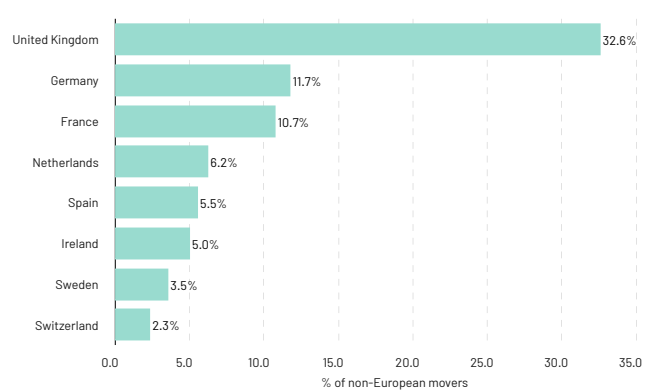
For London to retain its title as Europe's fintech capital we must continue to attract talent, and make it easy for that talent to come here.



"I remain optimistic about the future of European tech - never before have we come as close to creating the next global tech giant. Of course the uncertainty surrounding Brexit is a challenge. Lots of fintechs like TransferWise will be opening additional offices across the continent to mitigate Brexit risk, and there will certainly be hubs like Berlin, Paris and Amsterdam that benefit from start-up jobs coming to their cities. For London to retain its title as Europe's fintech capital we must continue to attract talent, and make it easy for that talent to come here. We hire to our headquarters from all over the world, roughly 50% of our London office were not born in the UK. Engineers and product managers are vital, but we recruit from overseas across all our teams. Regulation must be flexible enough to encompass rapidly evolving technical and marketing specialist roles."

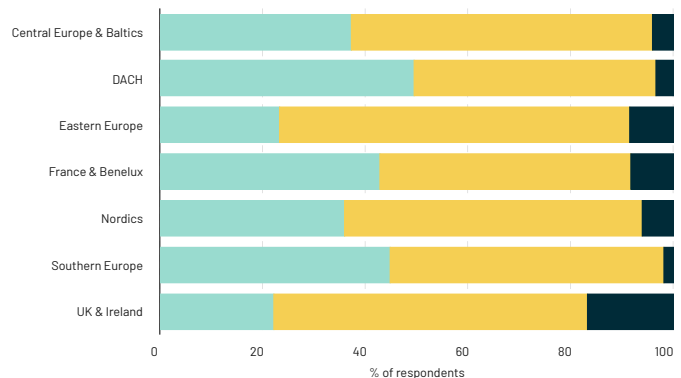
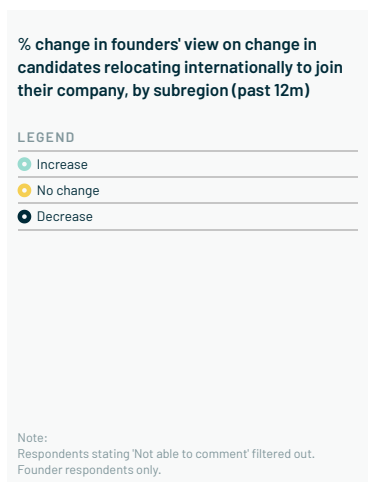
**Taavet Hinrikus**  
TransferWise

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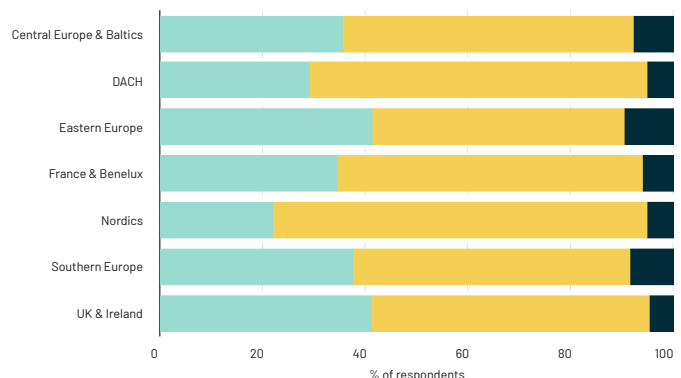
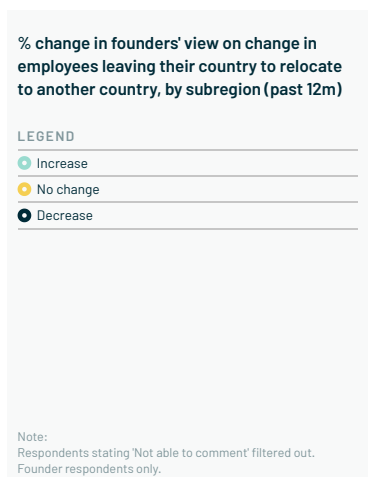
Source: **LinkedIn**

- Though the largest share of founders in each region have seen no change in the trend of candidates relocating internationally to join their business, they are significantly more likely to have experienced an increase in this trend in the past 12 months, rather than a decline. A larger share of founders in France & Benelux and DACH have seen an increase in this trend, while UK founders are more likely than any region to have seen a decrease.



Source: **The State of European Tech Survey**

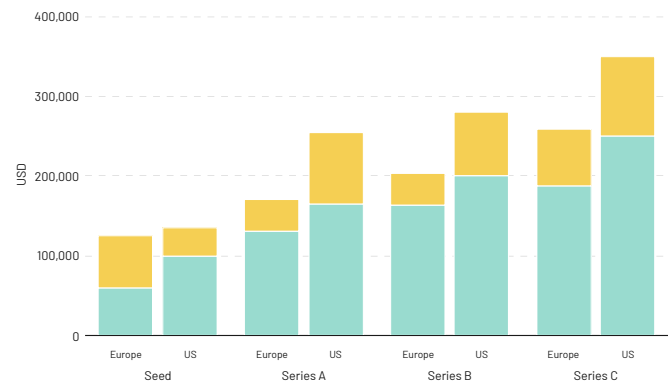
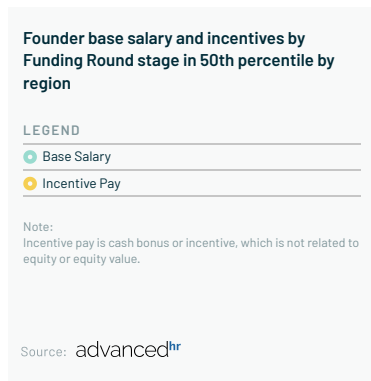
- Taking the trend from the opposite perspective and looking at trends of founders reporting changes in employee interest to leave the country by relocating overseas, founders in the UK & Ireland and in Eastern Europe are seeing the largest increase compared to other regions.



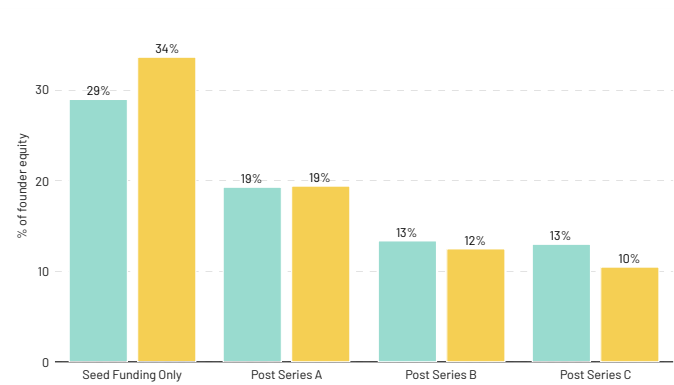
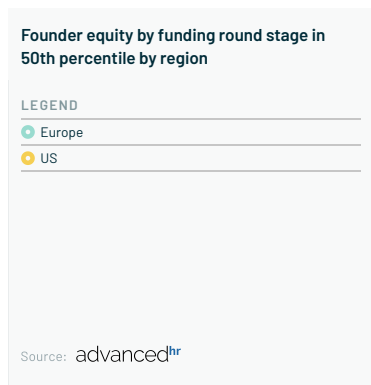
Source: **The State of European Tech Survey**

# Competing For & Compensating Talent

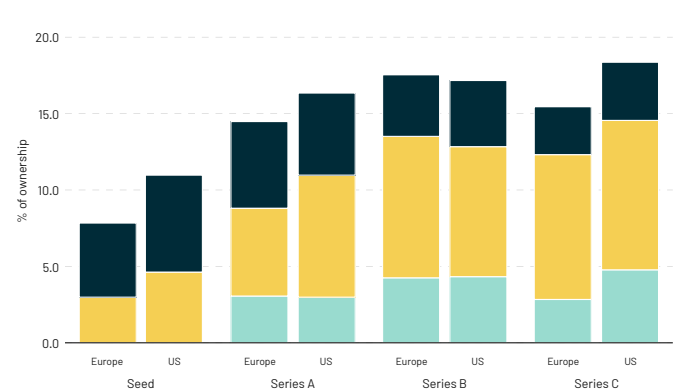
- There is a wide variance in the level of average founder compensation at every funding round stage between Europe and the US, both in terms of base salary and incentive pay.



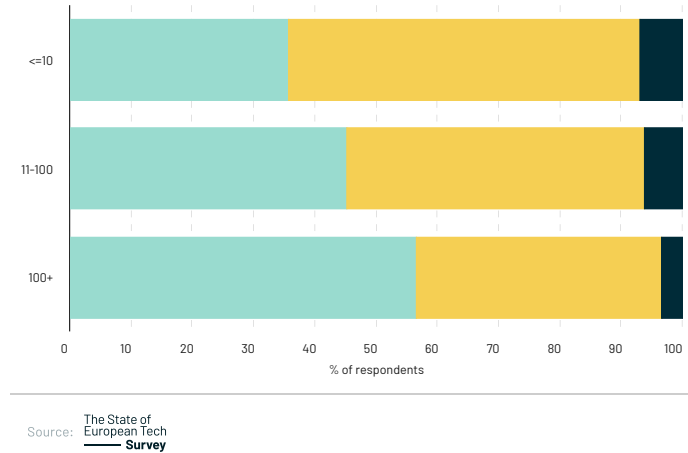
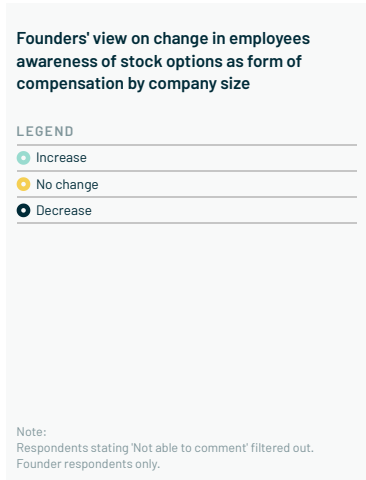
- While there are differences in average pay between European and US founders, the average level of founder equity by funding round stage is closely aligned from Series A onwards.



- European tech companies have historically either chosen not to use or have not been able to use stock options as an incentive tool for employees in the same way as has been standard in the US. Advanced-HR's latest data suggests that there is positive change afoot in Europe. Based on their latest employee ownership report, the average level of employee ownership by funding round stage in Europe is broadly in line with levels in the US.



- A positive effect of awareness-building campaigns, led in part by strong arguments from Europe's leading VCs, is evident in a reported increase in employee awareness of stock options as a form of compensation. This increased awareness is most prevalent in larger companies of 100 employees or more.



- A majority of European founders of larger companies of 100+ employees report an increase in employee awareness of stock options

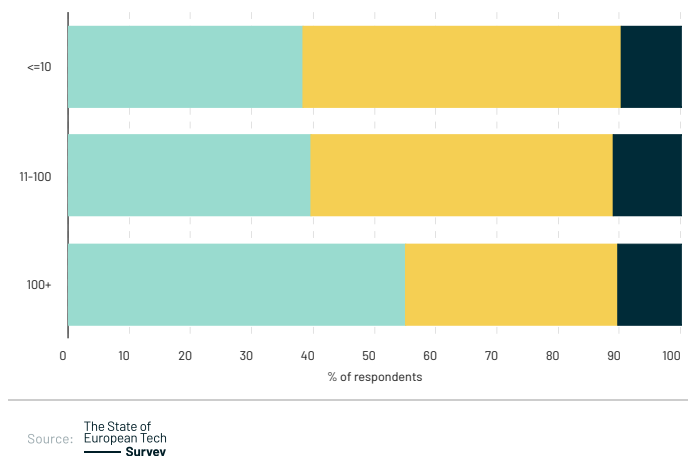
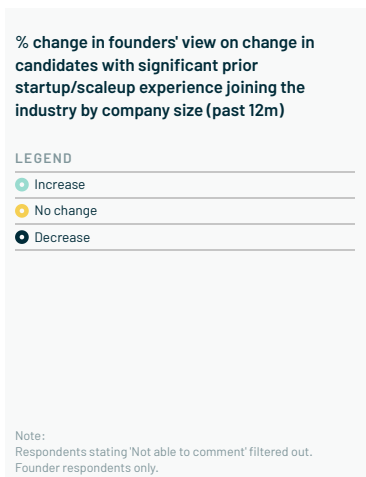
#### STOCK OPTION AWARENESS

56%

of founders of European private tech start-up or scale-ups with more than 100 employees report an increase in employee awareness of stock options as a form of compensation

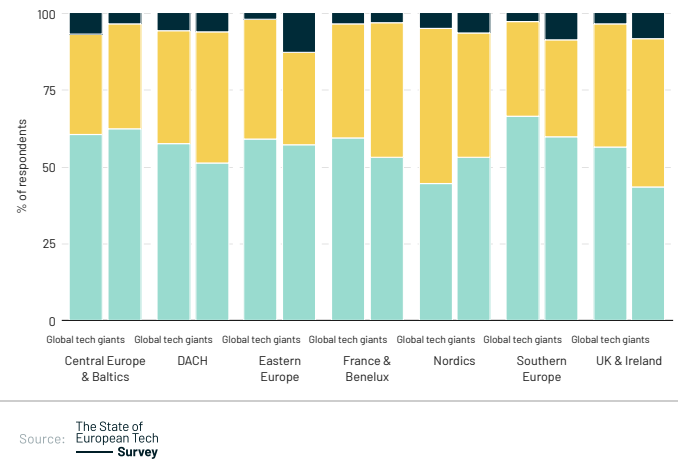
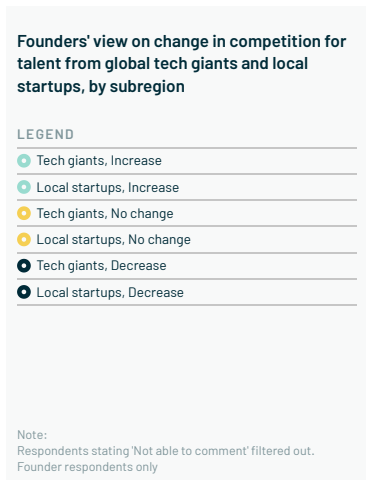
Source: The State of European Tech Survey

- As Europe's tech ecosystem continues to evolve and mature, it is helping to drive greater access to talent that has built significant and relevant prior experience at other startups or scaleups. This is especially true for the region's more scaled startups with 55% of founders of companies with more than 100 employees reporting an increase in this talent trend.





- The impetus for founders to ensure they have designed competitive incentives mechanisms to attract talent is underpinned by the growing level of competition for talent in the European tech ecosystem. Founders from all regions, though at varying levels, report increased levels of competition from both global tech giants, as well as homegrown local startups that are playing in the same talent pool.



- More than half of European founders are seeing increased competition for talent from global tech companies

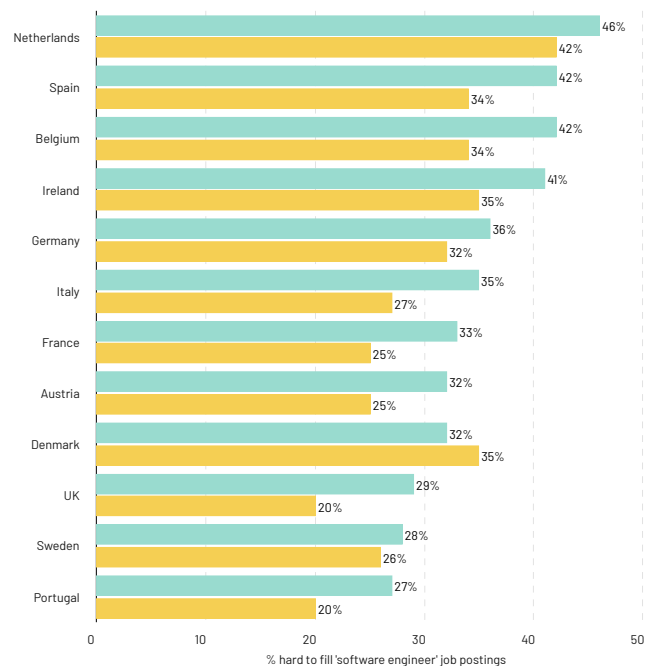
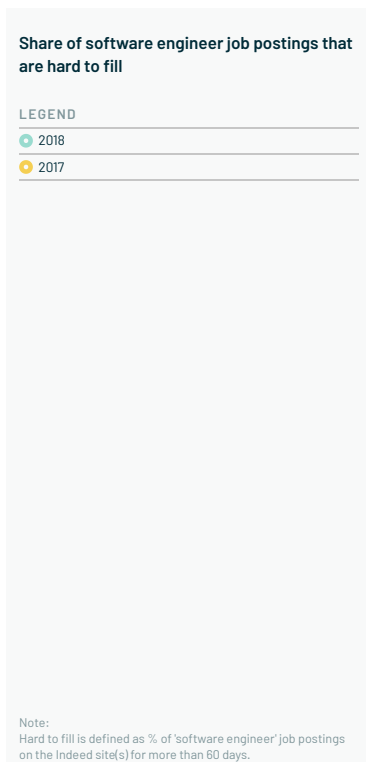
#### COMPETITION FOR TALENT

54%

of European founders have experienced an increase or significant increase in competition for talent from global tech companies in the past 12 months

Source: The State of European Tech Survey

- The effect of increased competition for talent plays out in different ways, including salary inflation, greater employee churn and more difficulty in filling roles. On the last point, for example, the number of job postings for 'software engineer' roles that prove hard to fill has increased in every European country for which data is available, except Denmark.





*There is talent in Europe but it's in demand, especially when it comes to people who have been there and done it already.*



**Tugce Bulut**  
Streetbees

*"The biggest challenge is finding high-quality talent. There is talent in Europe but it's in demand, especially when it comes to people who have been there and done it already. This is a younger ecosystem than Silicon Valley and it's not easy to hire people who have been able to implement, say, groundbreaking new AI techniques that scale a B2C solution so it can conquer the world - they are in short supply! So you have to always look not only for people who will help you now, but also for those who will be what you need in several months' time."*

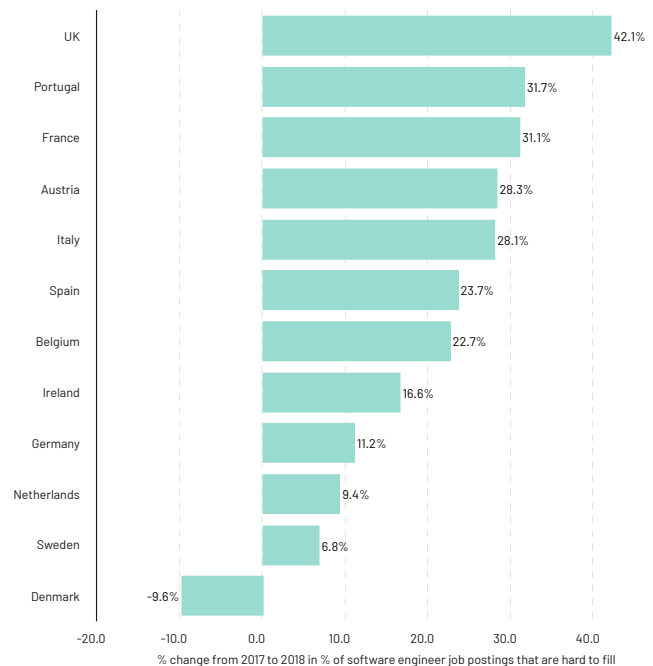
- The extent to which it has become harder to fill software engineer job postings in Europe varies at the country level. The UK has, by some margin, experienced the largest overall increase in the share of jobs that have become hard to fill.

**Change in % of software engineer job postings that are hard to fill, 2018 versus 2017**

LEGEND

• YoY change (%)

Note:  
% change in % of software engineer jobs that are hard to fill in 2018 versus 2017 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**



## The Next Generation

- The list of companies that have the largest number of alumni who have gone on to become founders of European tech companies is dominated by established tech companies, such as Google and Microsoft, as well as large consulting firms, such as The Boston Consulting Group and Accenture.

Top 10 companies by number of alumni who have founded companies

	Company
1	The Boston Consulting Group
2	Microsoft
3	Nokia
4	Accenture
5	Siemens
6	IBM
7	Google
8	Hewlett Packard
9	Yahoo!
10	McKinsey & Company

Source:  dealroom.CO

- European universities are important sources of founder talent, especially the leading technical and business universities. Notably, Harvard and Stanford also feature amongst the top 20 academic institutions with the largest number of alumni who have founded European tech companies.

Top 10 institutions by number of alumni who have founded companies

	University	City	Country
1	University of Cambridge	Cambridge	United Kingdom
2	HEC Paris	Paris	France
3	University of Oxford	Oxford	United Kingdom
4	INSEAD	Fontainebleau	France
5	Imperial College London	London	United Kingdom
6	ESCP Europe	Berlin (HQ)	Germany
7	London Business School	London	United Kingdom
8	Stanford University	Stanford	United States
9	KTH Royal Institute of Technology	Stockholm	Sweden
10	Lund University	Lund	Sweden

Source:  dealroom.CO

- Europe's leading universities are important sources of entrepreneurial talent

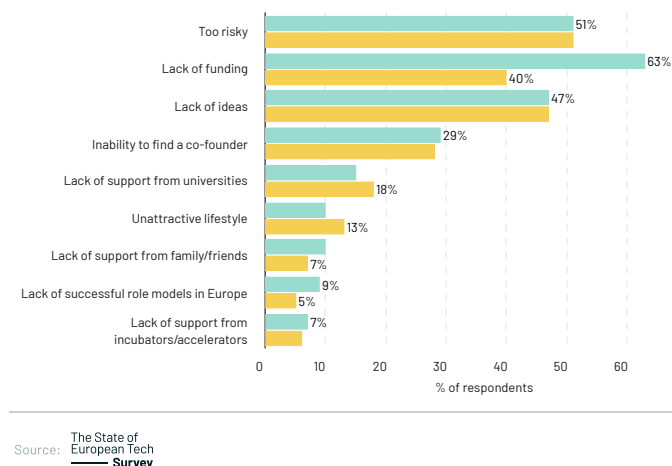
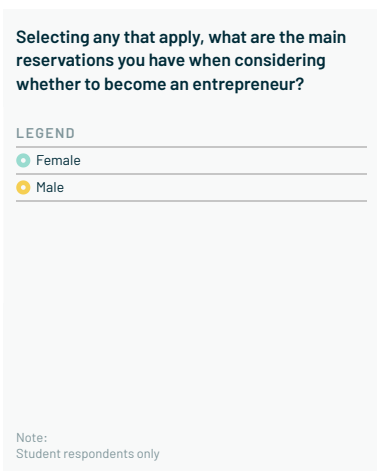
### SOURCE OF TALENT

# #1

The University of Cambridge is the top source of founders of European venture-backed startups

Source:  dealroom.CO

- The biggest reservations that hold back students when considering entrepreneurship are the overall perceived risk, lack of funding, lack of ideas and an inability to find a co-founder to join them on the journey. These concerns are generally felt equally across students of both genders, except for access to funding, which is cited significantly more frequently by female students.



*Creator Fund is...building a community where potential founders or people interested in starting a business meet other people like them. They realise that entrepreneurship is viable, and that there will be people to support them.*



**Jamie Macfarlane**  
Creator Fund

*"Entrepreneurship might feel riskier to students because they think they can't find the funding. Second, students see their friends taking a job at a large corporation or going into a law firm and therefore by comparison it feels risky to break out and start their own thing. I think Creator Fund is changing that by building a community where potential founders or people interested in starting a business meet other people like them. They realise that entrepreneurship is viable, and that there will be people to support them."*

- The structural imbalance in access to funds for female entrepreneurs is evident in the reservations that female students have when considering entrepreneurship

#### BARRIERS TO ENTREPRENEURSHIP FOR STUDENTS

63%

Female students cite access to funding as their main reservation when considering whether to become an entrepreneur, versus just 40% of male students

Source: The State of European Tech Survey

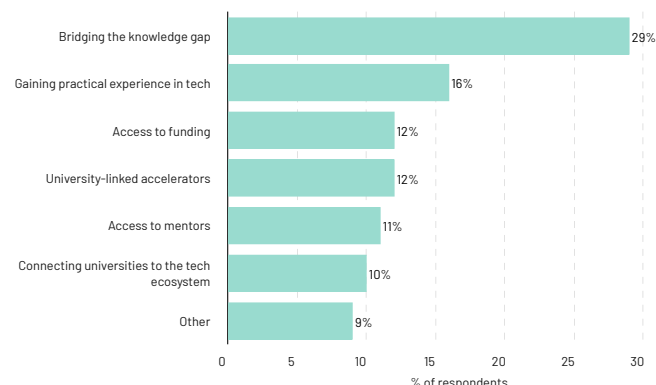
- If Europe's tech ecosystem is to benefit from an increased number of its next generations of students entering into entrepreneurship, it should explore ways to better educate students about tech entrepreneurship and expose them to relevant, practical experiences from which they can learn.

Stated briefly, what could be done to better support students to move straight into entrepreneurship?

#### LEGEND

• % of respondents

Note:  
Student respondents only. Based on respondents that gave explicit responses only.



Source: The State of European Tech Survey



*Each student should think about and use their Edge, what is their competitive advantage against other founders? Particularly if you're technical, this is a must.*



Alice Bentinck  
EF

*"It's never been easier for students to start companies both while at university and upon graduating. That said, we still see students focus on small markets and small problems when this needn't be the case. Each student should think about and use their Edge, what is their competitive advantage against other founders? Particularly if you're technical, this is a must."*

- A new generation of VCs is emerging in Europe to pioneer a model of running a fund by students that is investing in students



Campus Capital  
United Kingdom



First Momentum  
Ventures  
Germany



Oxford Seed Fund  
United Kingdom



The Creator Fund  
Pan-European



UCL Entrepreneurs  
VC Fund  
United Kingdom



Wave Ventures  
Finland

# 05

## Tech Hubs

### Concentrated & Connected Communities

Let's look beyond London, Paris, and Berlin. European tech is no longer driven by just a handful of cities. Upcoming hubs span from Cardiff, in the U.K. to Novosibirsk, Russia, 5,300 kilometers away. These new communities - linked by knowledge, talent, and capital flows - are already producing global, category winners.

#### ARTICLES

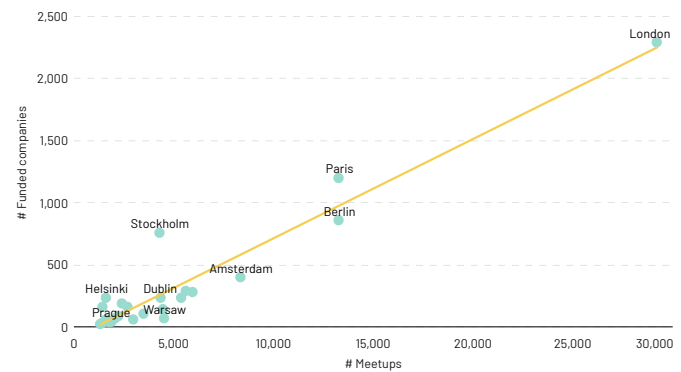
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- 05.1 Growing Communities
- 05.2 Every City is a Tech City
- 05.3 Density, through Interconnected Tech Hubs
- 05.4 Building and internationalising away from home
- 05.5 New Hubs - Where Next?

## Growing Communities

- Europe has huge upside potential if it succeeds in building active tech communities in all cities where there are large tech talent clusters. This is because there is, perhaps unsurprisingly, a very high correlation (r-squared of 0.914) between the strength of tech community engagement within cities, as defined by the number of tech-related Meetups, and the rate of companies formation.

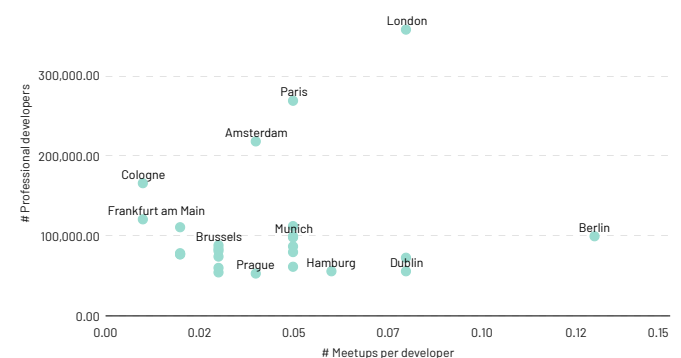
Number of funded companies (2013 to 9M 2018) versus number of tech-related Meetups (2013 to 9M 2018) per city, selected European cities



Source: [Meetup](#) [dealroom.co](#)

- But not all cities with large engineering talent pools have been able to build vibrant communities where people meet up frequently to exchange ideas and knowledge.

Number of tech-related Meetups per professional developer (2013 to 9M 2018) versus number of professional developers per city, selected European cities

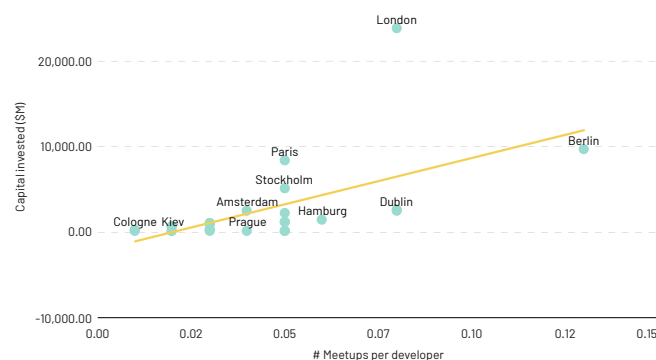


Source: [Meetup](#) [stackoverflow](#) [dealroom.co](#)



- When cities succeed in building active communities around their engineering talent, as measured by the number of tech-related Meetup events hosted per local developer, the data suggests that capital investment follows in larger volumes. The strength of tech community development is a critical leading indicator signposting the future potential of the European tech ecosystem.

Number of tech-related Meetups per developer versus total capital invested (2013 to 9M 2018) per city, selected European cities



Source: *Meetup* *stackoverflow* *dealroom.co*

- There is huge geographic diversity amongst the Top 20 fastest-growing tech hubs in Europe, as measured by the annual growth in attendees to tech-related Meetup events in those cities. Zug in Switzerland, home to a growing crypto community, ranked number one as the fastest-growing community overall.

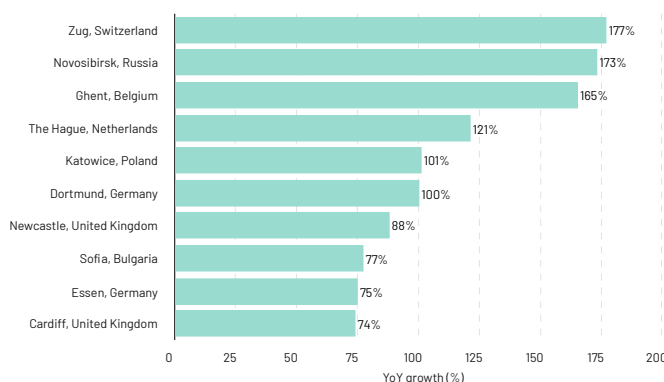
Top 20 fastest-growing tech hubs in Europe by year-on-year growth of attendees to tech-related Meetup events per city

DATASET: TOP 10 HUBS

LEGEND

YoY growth 2017-2018 (%)

Note:  
2018 annualised based on RSVPs to end of September 2018.  
Only hubs with at least 1,000 RSVPs in 2017 are included in the analysis.



Source: *Meetup*

- The number of tech-related Meetup events in Europe continues to hit new highs, although the rate of year-on-year growth is decelerating. In 2018, the level of activity on Meetup alone equates to around 200 events hosted every single day through the year.

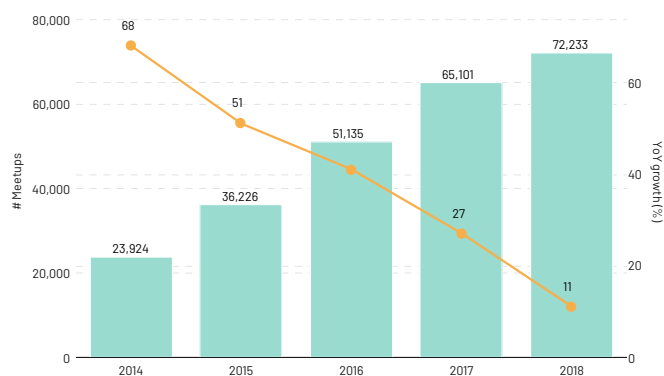
# of tech-related Meetups hosted in Europe per annum

LEGEND

Events hosted

YoY growth (%)

Note:  
2018 annualised based on data to end of September 2018



Source: *Meetup*



Today, if you build a business that's obsessed with the customer, the capital will come to you.



"We've recently done deals with amazing companies in cities as diverse as Marbella to Bristol. Gone are the days where growth capital is limited to the Valley, a fact that Silicon Valley itself now acknowledges: with the majority of VCs based there now planning to invest internationally. Today, if you build a business that's obsessed with the customer, the capital will come to you."

**Simon Cook**  
Draper Esprit

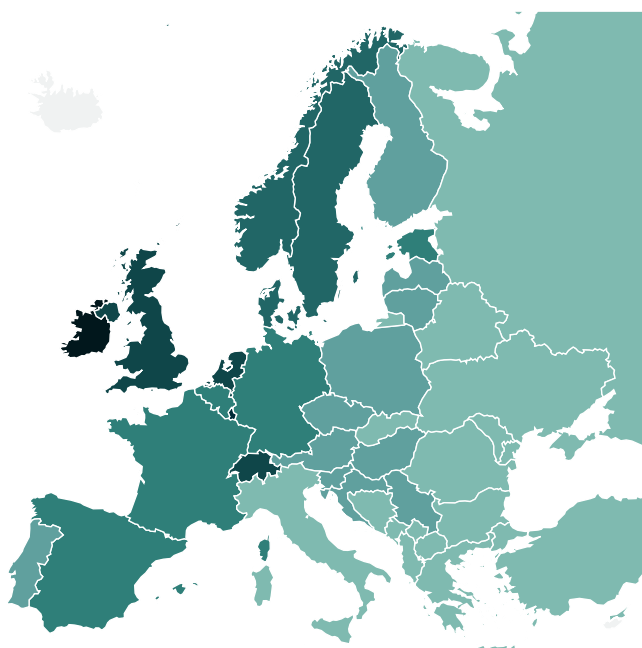
- The density of these tech-related Meetup communities relative to the overall population of individual countries varies significantly across Europe, led by Ireland, Luxembourg, the Netherlands and Switzerland.

# of active members of tech-related Meetup groups per 1,000 inhabitants by country

LEGEND

- upto 7.0
- 5.0 to 6.0
- 4.0 to 5.0
- 3.0 to 4.0
- 2.0 to 3.0
- 1.0 to 2.0
- upto 1.0

Source: *Meetup*



- In Europe's largest and most mature tech communities, there are signs of a slowdown in the level of participation around tech-related Meetup events, but outside those leading hubs there continues to be rapid growth in engagement, including in cities such as Hamburg, Zurich, Manchester or Wroclaw.

**Top 20 hubs by level of tech Meetup activity in 2018, ranked by number of Meetup attendees**

LEGEND

- London
- Berlin
- Paris
- Amsterdam
- Munich

LEGEND

- Madrid
- Warsaw
- Barcelona
- Istanbul
- Dublin

LEGEND

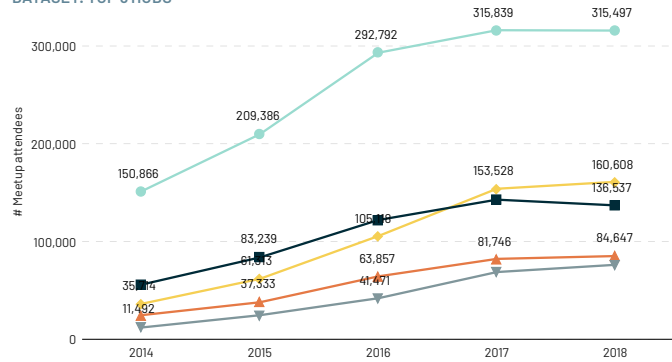
- Hamburg
- Zurich
- Stockholm
- Oslo
- Manchester

LEGEND

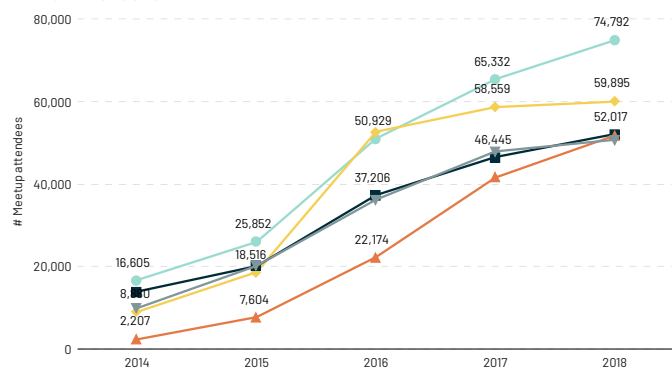
- Budapest
- Wroclaw
- Vienna
- Copenhagen
- Frankfurt

Note:  
2018 annualised based on RSVPs to end of September 2018

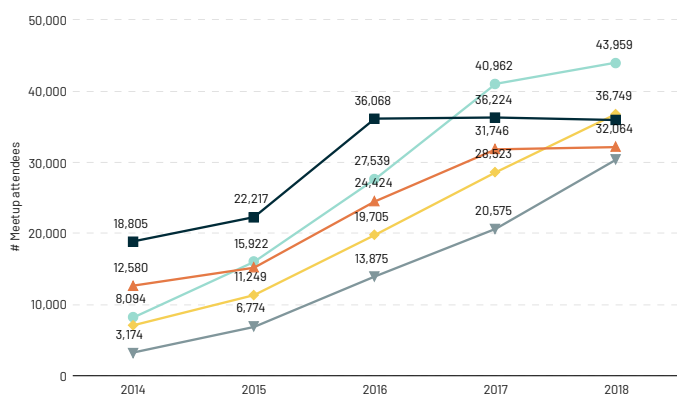
**DATASET: TOP 5 HUBS**



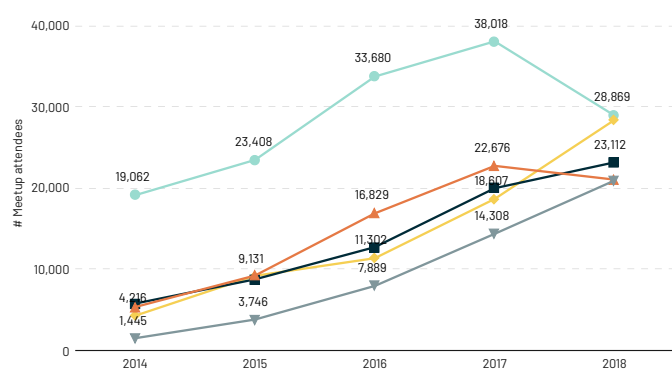
**DATASET: HUBS 6-10**



**DATASET: HUBS 11-15**



**HUBS 16-20**



Source: *Meetup*

- Talent is necessary, but talent alone is not enough. Cities need to engage that talent in active communities to drive greater levels of company formation

## TECH COMMUNITIES AND COMPANY FORMATION

# 0.914

The correlation between the strength of tech community engagement within cities and the rate of company formation and funding has an r-squared of 0.914.

Source: *Meetup*



## Every City is a Tech City

- Data on the size of tech-related Meetup communities per city is useful in helping to identify a new generation of hubs that are emerging across the region and are achieving a meaningful scale in terms of the number of active participants in local tech-related Meetup events

Top 10 most popular tech-related Meetup event topics in Europe in 2018

	Country	2016	2017	2018	YoY 2017-2018 (%)
Antalya	Turkey	97	209	1,715	721
Cologne	Germany	83	407	1,061	161
Minsk	Belarus	580	895	1,259	41
Ghent	Belgium	329	883	1,212	37
Zug	Switzerland	431	852	1,159	36
Mannheim	Germany	586	881	1,190	35
Essen	Germany	516	869	1,075	24
Rzeszów	Poland	858	946	1,145	21
Münster	Germany	440	991	1,184	19
Freiburg	Germany	569	958	1,031	8
Arnhem	Netherlands	691	989	1,027	4

Source: *Meetup*

- The signs that every city in Europe is becoming - or will eventually become - a tech city continue to strengthen. There are now 180+ hubs across Europe that host tech-related Meetup events with high levels of regularity throughout the year.

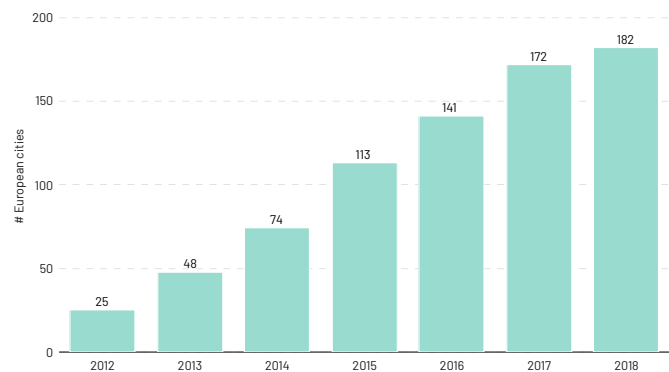
# European cities with >50 tech-related Meetup events per year

#### LEGEND

● # European cities

Note:  
2018 annualised based on data to end of September 2018

Source: *Meetup*



- It's clear that Europe's tech ecosystem to date has been driven by just a handful of cities. The share of capital invested over a five-year period in leading cities versus their relative share of professional developer talent is telling. For example, 76% of all capital invested into Europe since 2013 has flowed to just 10 hubs representing just 30% of the talent pool.

Share of capital invested (2013 to 9M 2018) versus share of professional developer talent pool for Top 3, 5 & 10 hubs

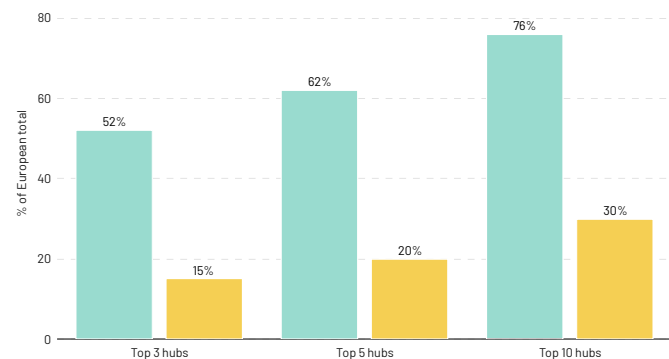
#### LEGEND

● % capital invested

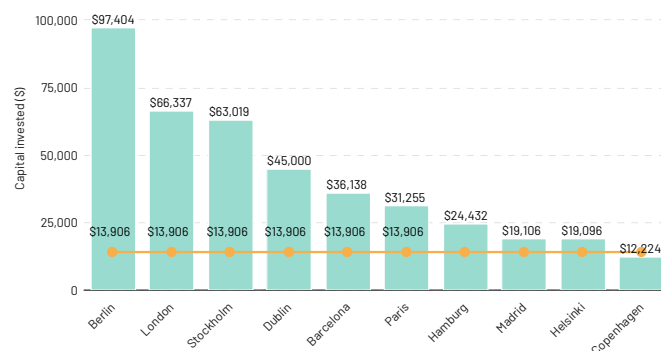
● % professional developers

Note:  
Top 3 hubs based on total capital invested 2013-3Q2018 are London, Berlin, and Paris. Top 5 adds Stockholm and Barcelona. Top 10 adds Cambridge, Dublin, Amsterdam, Madrid, and Moscow.

Source: *stackoverflow* & *dealroom.co*



- It's interesting to compare the 'bang for buck' different cities have achieved by measuring across them the level of capital investment per local professional developer. Such comparison shows Berlin stands apart as a real outlier, having attracted a disproportionate level of investment relative to its local developer pool.



Source: stackoverflow dealroom.co



The emergence of global hits like UIPath from Bucharest, Supercell from Helsinki, Farfetch from Lisbon – all from far beyond the unicorn-factories of London, Stockholm and Berlin – marks a new era for Europe.



**Ophelia Brown**  
Blossom Capital

"The big change is that there are now plenty of examples of how it's possible to create world-changing companies from all over Europe. The emergence of global hits like UIPath from Bucharest, Supercell from Helsinki, Farfetch from Lisbon – all from far beyond the unicorn-factories of London, Stockholm and Berlin – marks a new era for Europe. However, so far founders from non-hub cities have been inadequately served by investors who tend to focus on the traditional geographies and are not equipped to offer the same support when a startup originates from a small town in, for example, Germany or Estonia."

- Europe's tech community outside its Top 20 hubs continues to flourish

## TECH HUBS EVERYWHERE

53%

of all tech-related Meetups in Europe that now happen outside of the Top 20 hubs in the region, up from 42% in 2014.

Source: meetup

- Berlin's relatively small professional developer community has attracted a disproportionate amount of capital investment compared to any other European city, including London

## CAPITAL BANG PER DEVELOPER BUCK

\$97,404

capital invested since 2013 per developer in Berlin, the highest concentration of capital invested per developer of any European city

Source: dealroom.co

## Density, through Interconnected Tech Hubs

- The European ecosystem benefits from interconnectivity in a number of ways that help drive the flow of knowledge, talent, and capital. Exchanges amongst counterparts, whether founders or investors, enables the flow of useful ideas and knowledge throughout the European tech ecosystem.

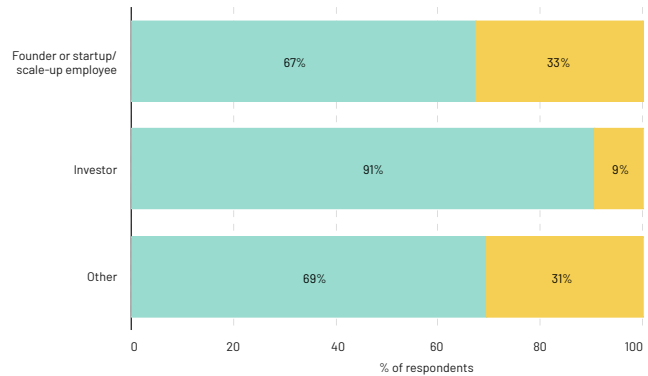
I have exchanged useful ideas and knowledge with my counterparts from other hubs

#### LEGEND

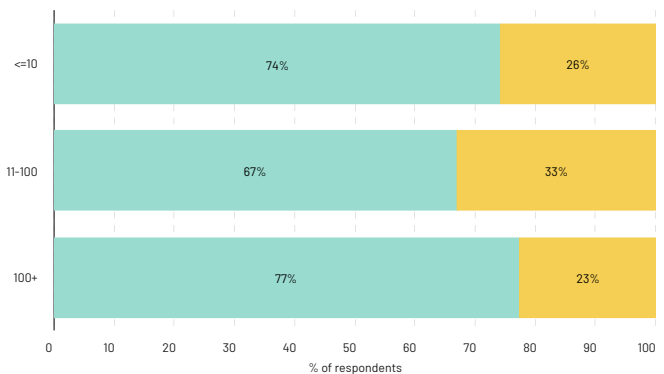
- Yes
- No

Note:  
In subregions, only founders' and startup/scale-up employees' responses included. In company sizes, only founders' responses.

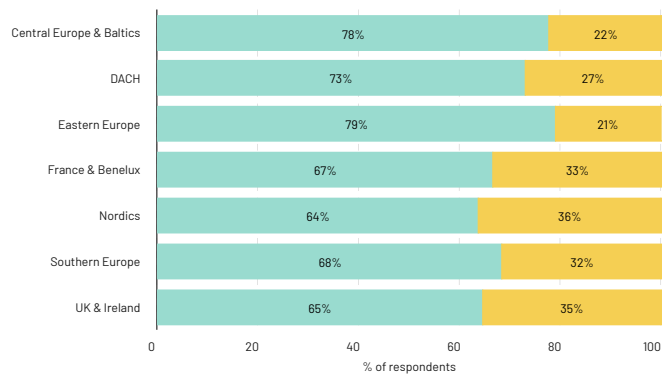
#### DATASET: OCCUPATION



#### DATASET: COMPANY SIZE BY # OF EMPLOYEES



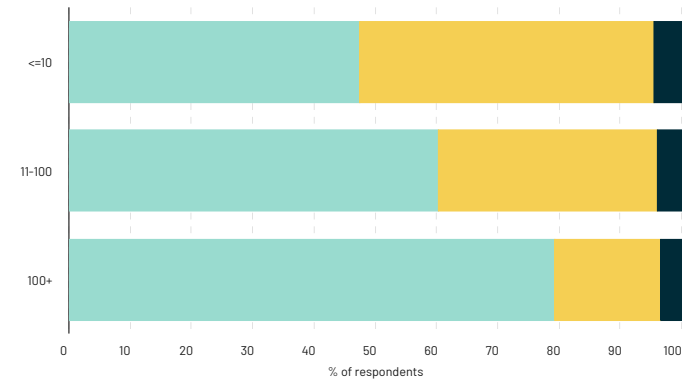
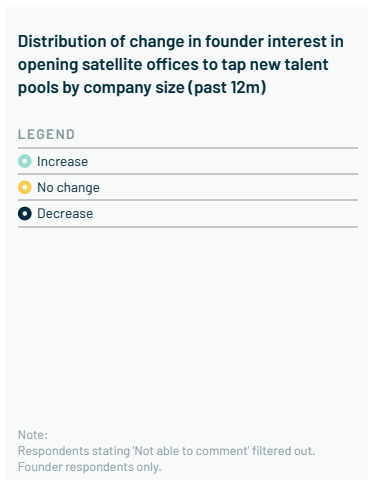
#### DATASET: SUBREGION



Source: The State of European Tech Survey

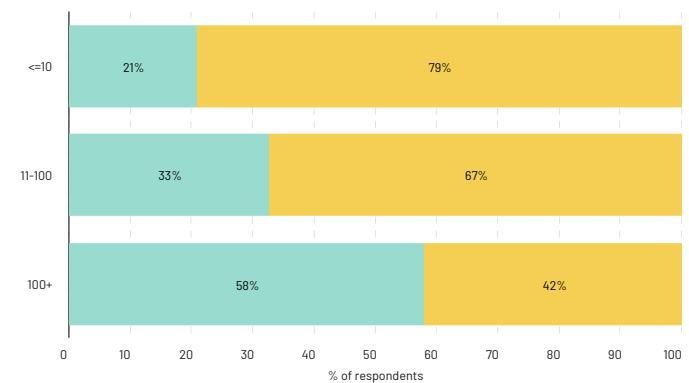
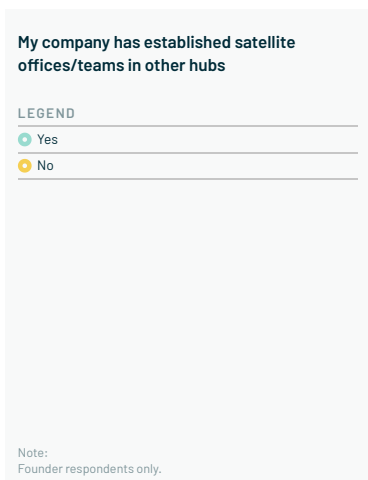


- The combination of an increase in competition for talent in established European tech hubs together with the increased attractiveness of a new generation of tech hubs across the region is helping to drive an increase in founders' interest in opening satellite offices to tap new talent pools. 80% of founders of companies with more than 100 employees state an increased interest in pursuing this 'distributed office' strategy.



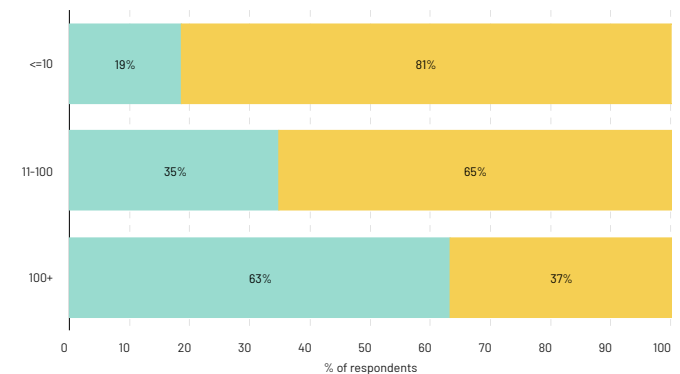
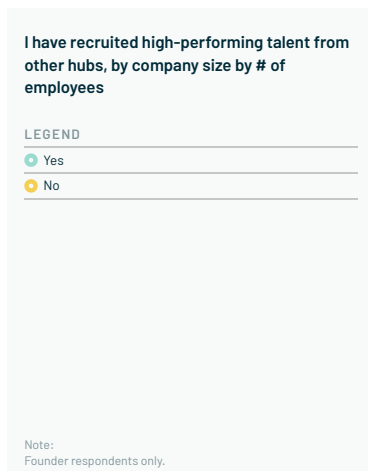
Source: The State of European Tech Survey

- The principle of scaling a European tech company by building in a distributed way across multiple offices in different cities is firmly embedded. By the time European startups have hit 100 employees or more, more than half of them have established a satellite office or team in another hub.



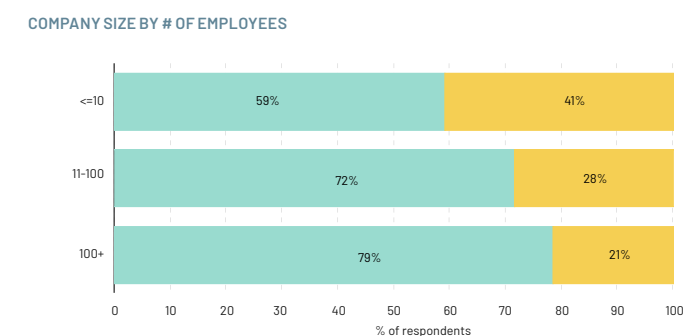
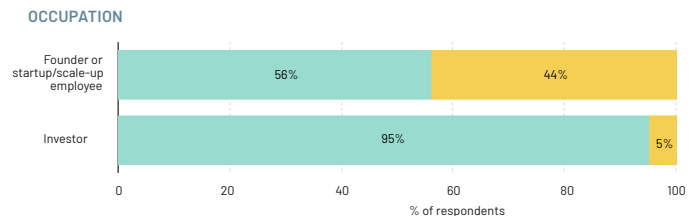
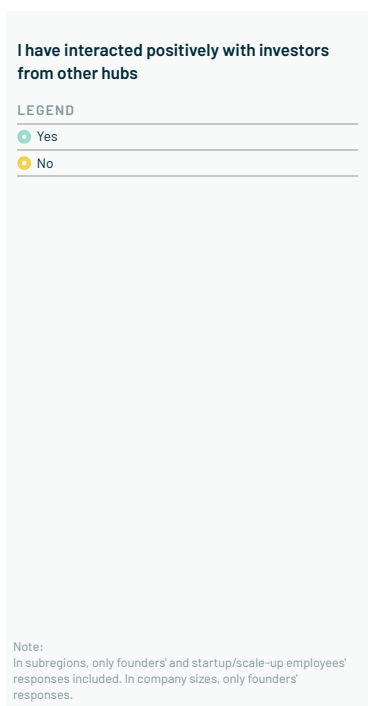
Source: The State of European Tech Survey

- In addition to opening offices in new hubs to tap alternative talent pools, a large number of European founders recruit high-performing talent from other hubs, though the likelihood of doing so increases significantly as the size of the company increases.



Source: The State of European Tech Survey

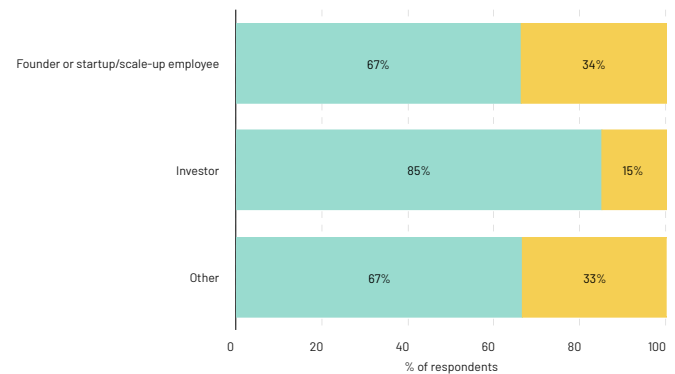
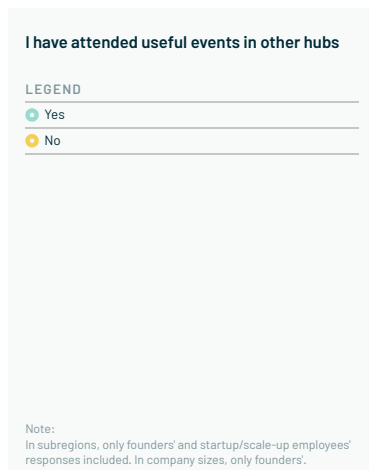
- Europe's tech ecosystem also benefits from an interconnected flow of capital, driven by connections between investors and founders across borders. Europe's VCs, in particular, are highly connected and have almost unanimously built relationships and benefit from positive interactions with fellow investors from other hubs across the region – a unique advantage given the diversity of the European market as a whole.



Source: The State of European Tech Survey



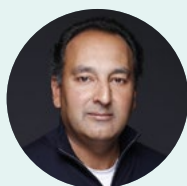
- Europe's tech ecosystem also benefits from a valuable series of international events that help to interconnect hubs via network flow. The overwhelming majority of investors and a clear majority of founders and startup employees have attended events in other hubs that they have found useful.



Source: The State of European Tech Survey



*The continued development and growth of the numerous tech-hubs across Europe will be a critical factor in incubating the next big tech successes.*

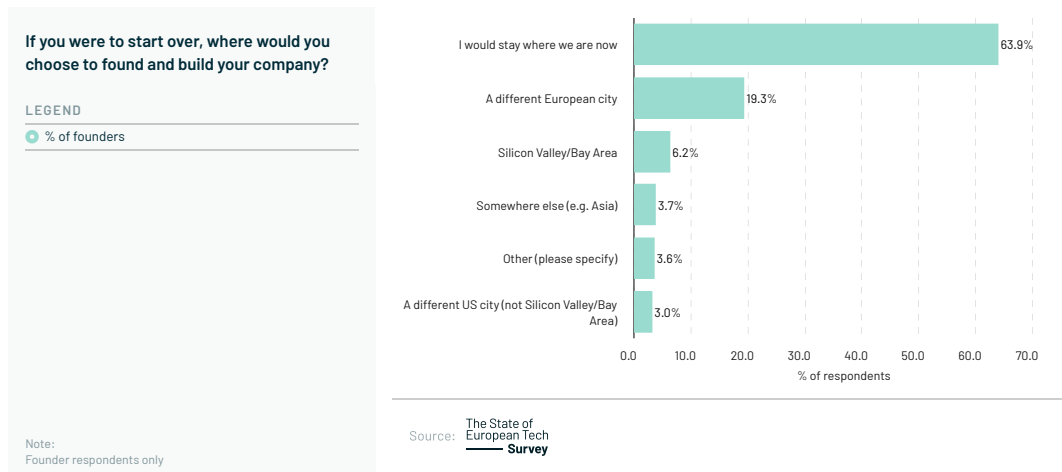


**Munish Varma**  
SoftBank Vision Fund

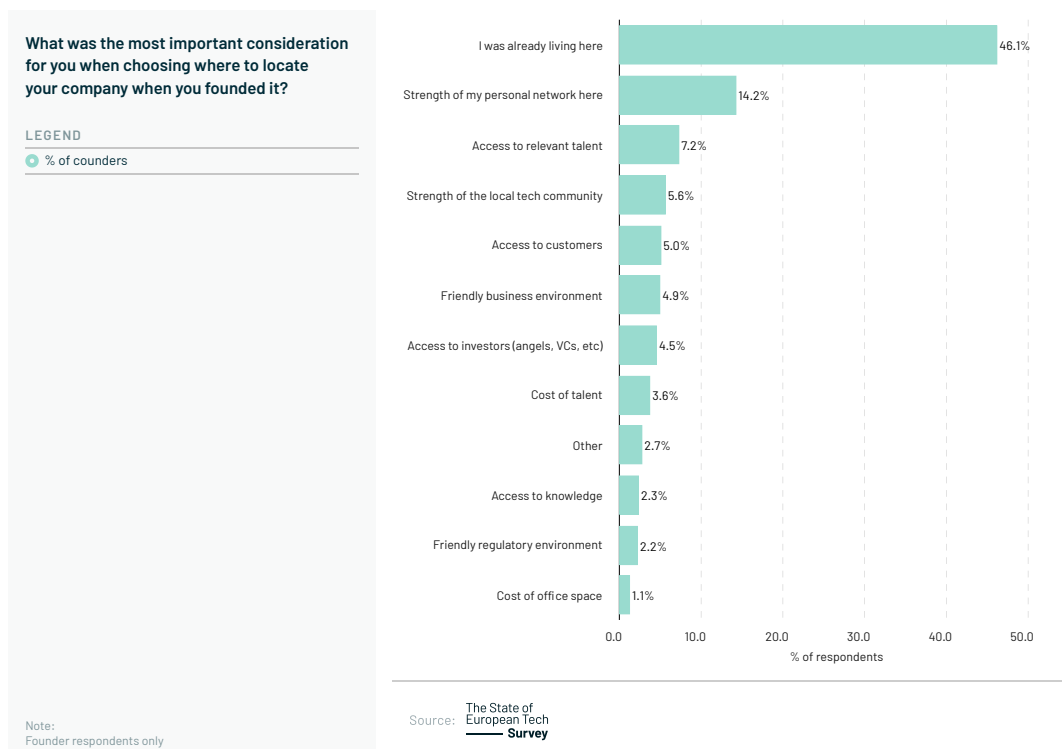
*"The continued development and growth of the numerous tech-hubs across Europe will be a critical factor in incubating the next big tech successes. Europe boasts some of the world's most progressive universities and research institutions, contributing directly to the growing and diverse pool of ideas and talent across London, Paris, Berlin, Stockholm, as well as other European hubs. Governments and policy makers across the region are also increasingly responsive to the technology-led agenda through forward-thinking regulation and investment in next-generation digital infrastructure. These factors combine to provide the foundation for partnerships between bold entrepreneurs and bold investors in building the businesses that fundamentally disrupt the status quo."*

## Building and internationalising away from home

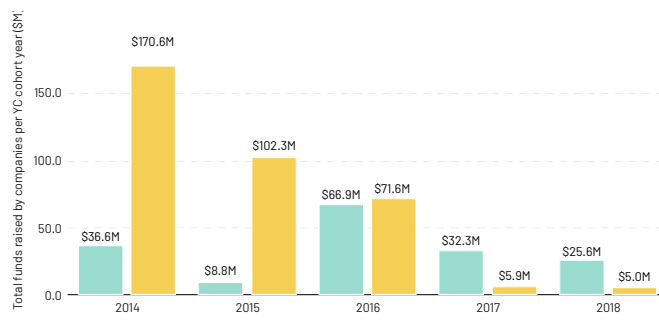
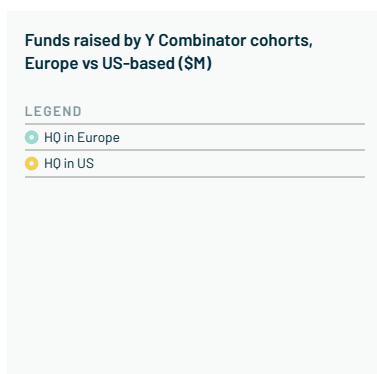
- The overwhelming majority of European founders are happy in Europe. Just 6% would choose to found and build their company in Silicon Valley if given the chance to start over again.



- Given that 28% of European founders are building their companies outside of their home countries, it's clear that founders will move if necessary to find the right location to build their company. But this is not necessarily their first choice. The majority of founders choose to build exactly where they are or where they have an established network.



- European teams entering Y Combinator are voting with their feet on where to build their business; YC graduates who have returned to Europe have raised 5x more in the past two years than those who moved their startups to the US (the difference in absolute amounts across years is simply a function of the relative age of the different cohorts).



Source: Blossom Capital

- European founders going through Y Combinator are voting with their feet and choosing to return to Europe

### FOUNDER RELOCATION TRENDS

5x

European founders that have graduated from Y Combinator and returned to Europe have raised 5x more than those that moved their startup to the U.S.

Source: Blossom Capital

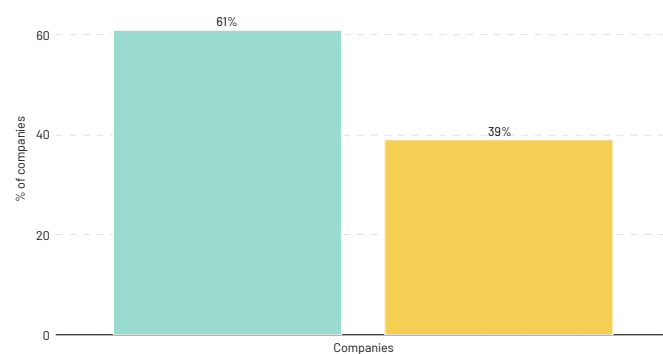
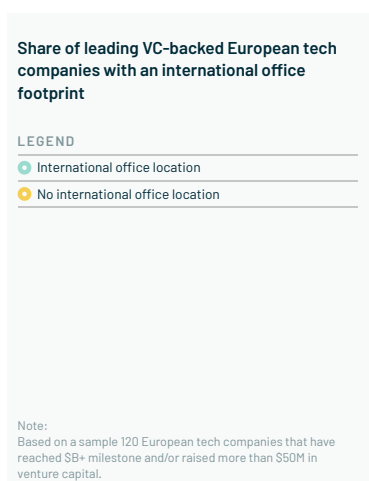
- European graduates of YC that elect to build from Europe are attracting investment from the region's leading investors, as well as from top U.S.-based funds.

### Selected examples of YC graduates that are building from Europe

	YC Cohort	HQ Location	Selected Investors
Duffel	Summer 2018	London	Blossom, Index
Let's do This	Winter 2018	London	Shasta
Quit Genius	Winter 2018	London	Village Global
Siite	Winter 2018	Paris	eFounders, Index
Station	Winter 2018	Paris	Accel, eFounders
Veriff	Winter 2018	Tallinn	Mosaic, ACE & Company
Fat Lama	Summer 2017	London	Atomico, Blossom, Greylock
MessageBird	Summer 2016	Amsterdam	Accel, Atomico

Source: Blossom Capital

- Around two-thirds of Europe's scale-ups have established an international office



Source: Craft

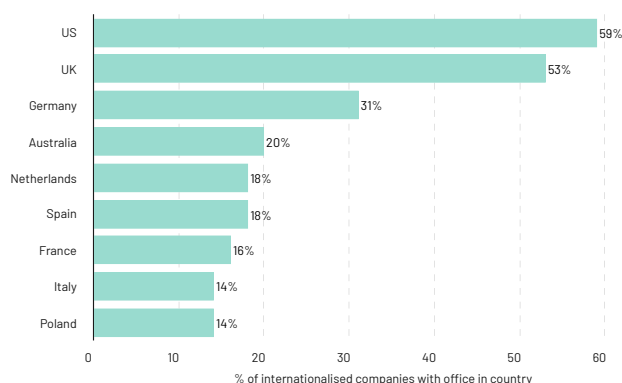
- The US is the #1 destination for European tech scale-ups that set up an international office

**Top 10 most popular countries for international office locations of European tech scale-ups that have internationalised their office footprint**

**LEGEND**

• % of internationalised companies with office in country

Note:  
Based on a sample 120 European tech companies that have reached SB+ milestone and/or raised more than \$50M in venture capital.

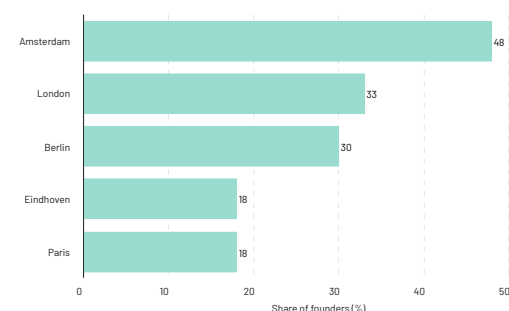


Source: Craft

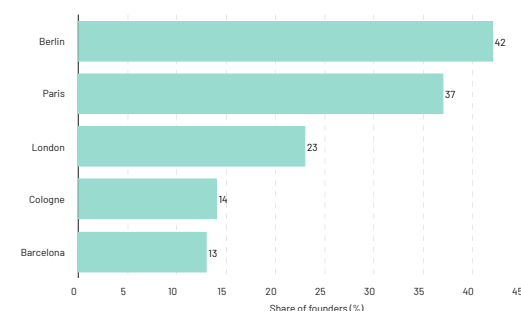
- Although London ranked as the most cited destination city amongst all respondents, there are clear differences in the top city preferences when analysing the results based on the sub-region of origin of survey participants. On that basis, it's apparent that London is only the number one city for respondents from UK & Ireland and from the Mediterranean region.

**Top 5 hubs where founders would start a company tomorrow, by region**

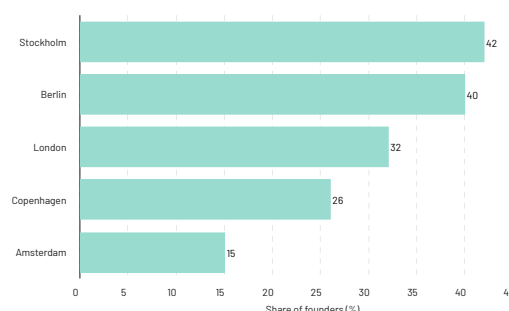
**DATASET: BENELUX**



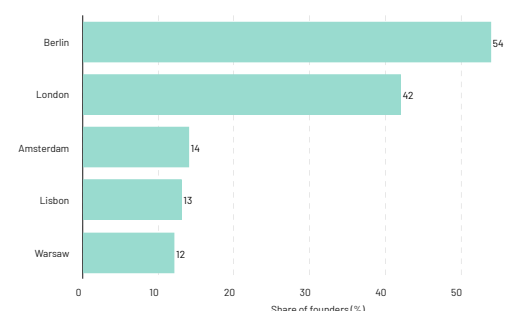
**DATASET: WESTERN EUROPE**



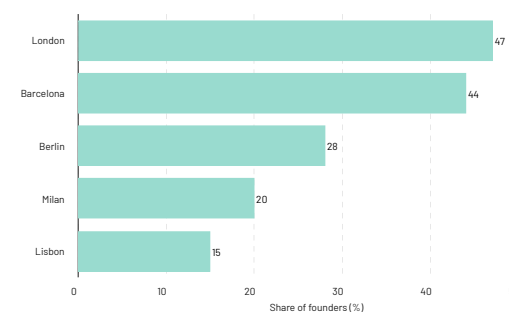
**DATASET: NORDICS & BALTICS**



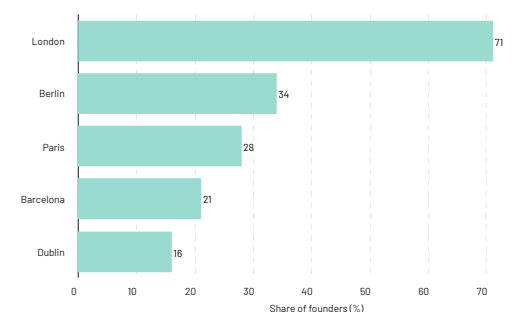
**DATASET: CENTRAL & EASTERN EUROPE**



**DATASET: MEDITERRANEAN**



**DATASET: UK & IRELAND**



Source: STARTUP HEATMAP EUROPE

66

You need to look beyond the established startup hubs to find the really interesting opportunities.



"I only invest in B2B software companies, and those can really come from anywhere. That has also been proven in Europe with category defining companies emerging from beyond the tier-1/2 cities. You need to look beyond the established startup hubs to find the really interesting opportunities."

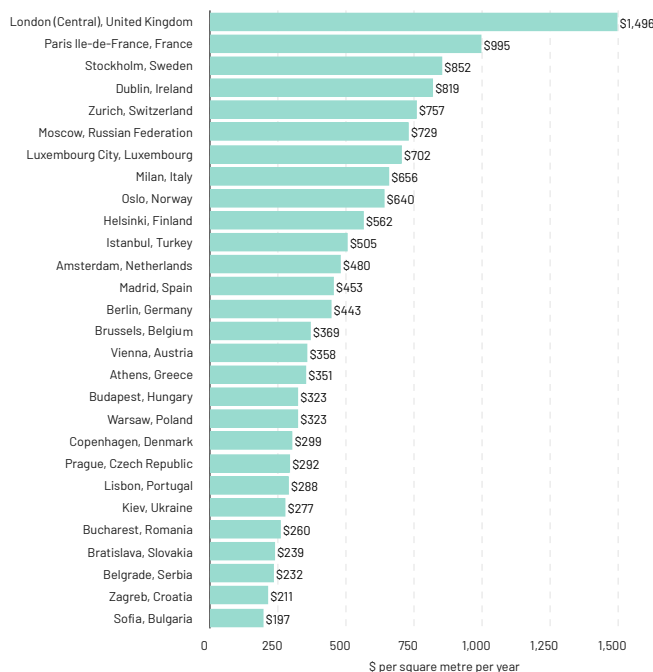
**Teddie Wardi**  
Insight Venture Partners

- Office space is one of the largest line items on the P&L for most tech companies, and picking the right office environment and location is an important decision for founder to get right. For founders that are prepared to move, there is more choice than ever. The wide variation of the cost of office space in different cities is just one factor to consider, though not necessarily a primary one.

**Cost of prime rent (\$ per square metre per year) for office space by city, 2Q 2018**

**LEGEND**

● Prime Rent (\$ per square metre per year)



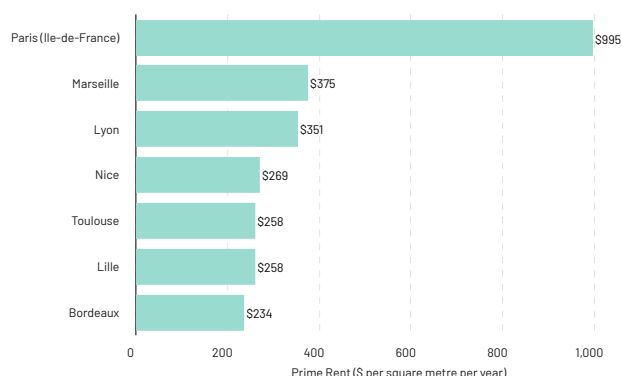
Source: **CBRE**



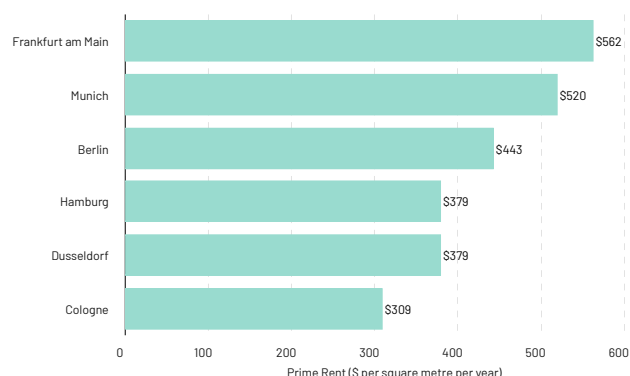
- There are huge potential cost benefits by placing offices in locations outside the primary hub, though the differences vary by country. In the U.K. and France, founders choosing to build outside of London and Paris stand to benefit from hugely reduced fees on the relative cost of office space. In Germany, on the other hand, the difference in the costs of office space outside Berlin is far less pronounced.

#### Cost of prime rent (\$ per square metre per year) for office space by city in selected countries, 2Q 2018

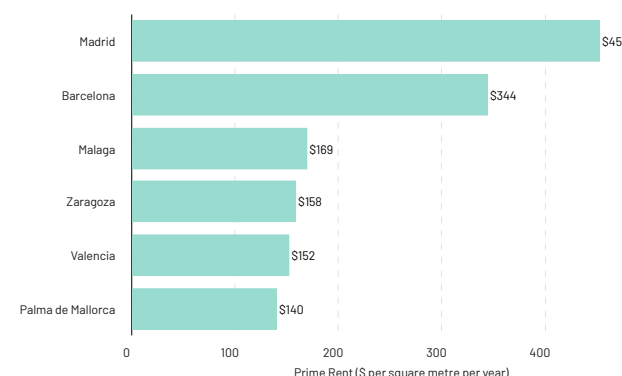
DATASET: FRANCE



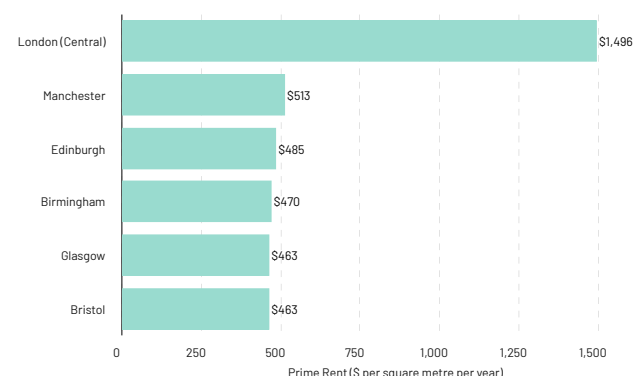
DATASET: GERMANY



DATASET: SPAIN



DATASET: UNITED KINGDOM

Source: **CBRE**

- Europe's leading hubs have many advantages, but they're also far more expensive to build from

#### OFFICE SPACE COSTS BY CITY

# 2.7x

Difference in cost per square metre of prime office space in Paris (Ile-de-France) compared to in Marseille, the next most expensive French city

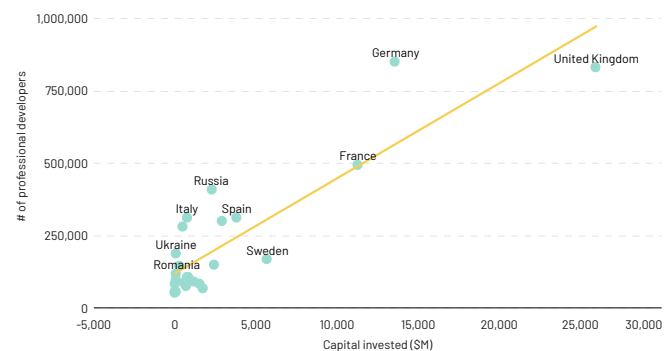
Source: **CBRE**

## New Hubs - Where Next?

- European tech has huge upside if it can unlock the potential of its latent talent pools. The size of the developer pools in comparison to relative levels of historical capital invested in them suggests that countries such as Italy, Poland or Spain still have large potential to punch at a greater weight in the European tech ecosystem.

Scatter of countries based on size of professional developer talent pool and capital invested (\$M)(2013 to 9M 2018)

Note:  
Chart only includes countries with greater than 50,000 professional developers in 2018.

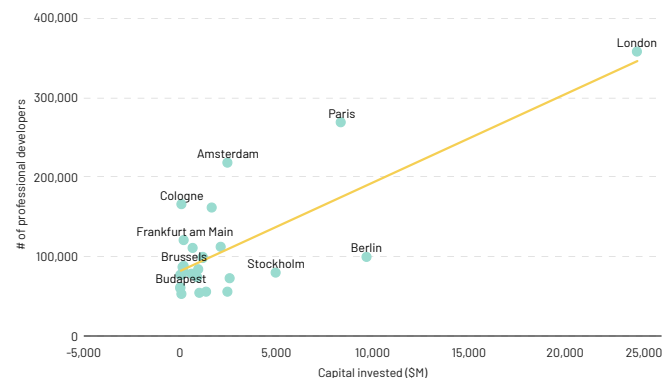


Source: stackoverflow dealroom.co

- There are giant talent hubs that offer huge potential if the local pool can be mobilised in the same way as in cities such as Berlin, Helsinki and Stockholm. Examples of these large talent clusters that have not yet produced companies that have raised large sums of capital investment include Cologne, Kiev and Vienna.

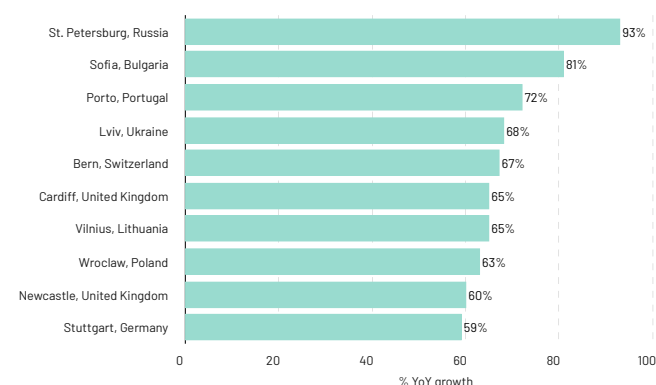
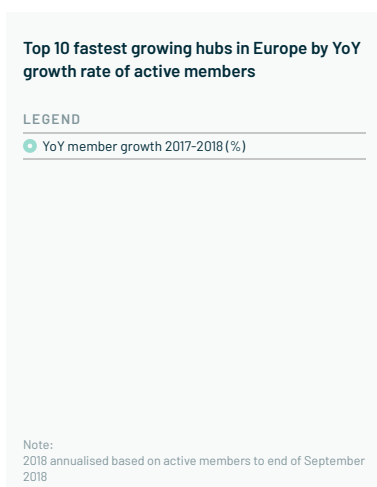
Scatter of cities based on size of professional developer talent pool and capital invested (\$M)(2013 to 9M 2018)

Note:  
Investment amounts are based on capital invested in the city in aggregate between 2012 and September 2018.



Source: stackoverflow dealroom.co

- This emergence of growing and more engaged tech communities in new parts of the region is reflected too in the list of Top 10 fastest-growing tech hubs, ranked by year-on-year growth in active members of tech-related Meetup groups.



Source: *Meetup*

- As new hubs continue to proliferate across Europe, the region's leading investors are increasingly backing founders from these locations. In the past 12 months, founders building companies in as diverse a set of cities as Lille, St Gallen and Warsaw have all raised funding from leading European VCs.

#### Selected investments in new tech hubs

	Country	Company	Lead Investor	Round Type	Round Size (\$M)
Brussels	Belgium	Cowboy	Tiger Global	Series A	12
Edinburgh	UK	Care Sourcer	ADV	Series A	11
Gothenburg	Sweden	NA-KD	Partech	Series B	45
Lille	France	OpenIO	Partech	Series A	5
Milan	Italy	Freda Media	Alven Capital	Series A	10
Oxford	UK	Ultromics	OSI	Series A	13
Reykjavik	Iceland	Teatime Games	Index, Atomico	Series A	7
St Gallen	Switzerland	Frontify	Blossom Capital	Series A	8
St Paul's Bay	Malta	FRVR	Accel	Seed	3
Tallinn	Estonia	Veriff	Mosaic	Series A	8
Warsaw	Poland	Packhelp	Speedinvest	Seed	2

Source: *dealroom.CO*



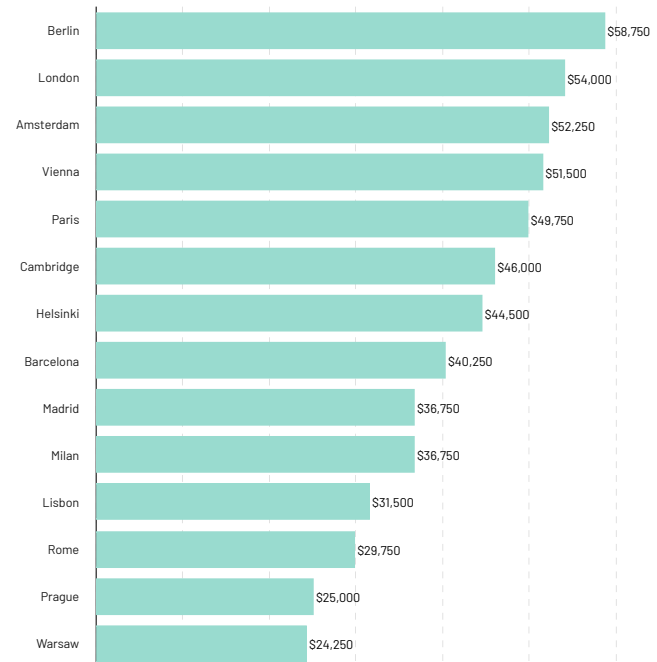
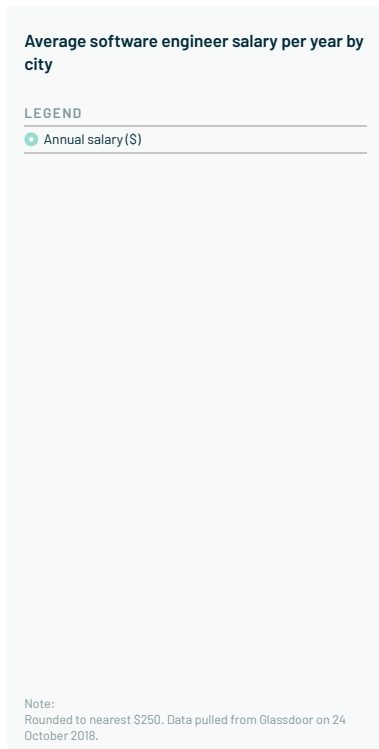
*We are probably in one of the most difficult positions – trying to produce the world's fastest electric sportscars out of a country that never had a car industry and has zero market for our products.*



**Mate Rimac**  
Rimac Automobili

*"I believe that for software startups, location is not that important. It is harder for hardware startups, especially those whose products are linked to the country's prestige. We are probably in one of the most difficult positions – trying to produce the world's fastest electric sportscars out of a country that never had a car industry and has zero market for our products. Despite everything, we have managed to attract funding, the right customers (all major European carmakers) and talent. It is possible, but probably much much harder than doing it in the "right place."*

- There is a wide variation in the average software engineer salary both across countries and even within them. According to Glassdoor, software engineers have the highest median salary in Berlin, which reflects the fact that Berlin has a disproportionately low density of local professional developers compared to other cities, but a large number of well-capitalised VC-backed companies that are chasing talent.



Source: Glassdoor

- The huge spread in the cost of software engineering talent across European cities is driving talent mobility and higher distribution of company building.

#### SOFTWARE ENGINEER SALARIES BY CITY

2.4x

Difference in the median base salary of a software engineer in Berlin compared to Warsaw

Source: Glassdoor



Photo: Damon Beckford

# 06

## Research and Development

### A Look Around the Corner

Europe is a research powerhouse. Its prolific research community exceeds that of the U.S. and China, and is flexing its muscle in deep tech. This research prowess can be a strong differentiator for European tech as science and tech further converge. The key to making that happen: knowledge transfer and better links between STEM and startups.

#### ARTICLES

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- 06.1 Mobilising Europe's R&D talent pool
- 06.2 Deepening Europe's frontier tech credentials

# Mobilising Europe's R&D talent pool

- If talent represents the foundations of the European tech ecosystem, its academic institutions are the bedrock. Europe is home to 14 of the Top 50 computer science universities in the world, including 5 of the Top 10. Europe is, in short, a factory for producing world-class computer science talent.

Europe's universities among global top 50 in computer science and their global rank

	University	Country
3	University of Oxford	United Kingdom
4	ETH Zurich	Switzerland
5	University of Cambridge	United Kingdom
9	Imperial College London	United Kingdom
10	EPF	Switzerland
14	University of Edinburgh	United Kingdom
16	Technical University of Munich	Germany
18	UCL	United Kingdom
36	Karlsruhe Institute of Technology	Germany
37	RWTH Aachen University	Germany
=42	Delft University of Technology	Netherlands
=42	Technical University of Berlin	Germany
47	LMU Munich	Germany
50	KU Leuven	Belgium

- Looking beyond just computer science, Europe is home to 31 of the world's top 100 universities in engineering and technology. These 31 universities are distributed across 11 different countries and 29 different cities and reflect the fact that European STEM talent is inherently spread across the region driven by the strong academic institutions that exist in all corners of the region. There are, in short, clusters of world-class talent potential in every corner of Europe.

Europe's universities among global top 100 in engineering and technology and their global rank

	University	Country
3	University of Oxford	United Kingdom
5	University of Cambridge	United Kingdom
9	ETH Zurich	Switzerland
10	Imperial College London	United Kingdom
14	École Polytechnique Fédérale de Lausanne	Switzerland
18	Delft University of Technology	Netherlands
21	Technical University of Munich	Germany
24	RWTH Aachen University	Germany
36	UCL	United Kingdom
37	KU Leuven	Belgium
38	KTH Royal Institute of Technology	Sweden
43	Technical University of Berlin	Germany
45	University of Edinburgh	United Kingdom
46	University of Manchester	United Kingdom
51	Eindhoven University of Technology	Netherlands
55	Karlsruhe Institute of Technology	Germany
58	Technical University of Denmark	Denmark
75	University of Bristol	United Kingdom
77	University of Stuttgart	Germany
79	Chalmers University of Technology	Sweden
82	École Polytechnique	France
84	University of Sheffield	United Kingdom
85	Aalborg University	Denmark
86	Norwegian University of Science and Technology	Norway
87	University of Southampton	United Kingdom
88	University of Freiburg	Germany
90	Polytechnic University of Milan	Italy
94	TU Dresden	Germany
95	University of Erlangen-Nuremberg	Germany
96	Lund University	Sweden
99	Aalto University	Finland

Source: Times Higher Education World University Rankings 2018

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*For the past decade or so, European VCs have been cheerfully ignoring the academic and scientific communities... But, to quote Bob Dylan, the times they are a changin'...*

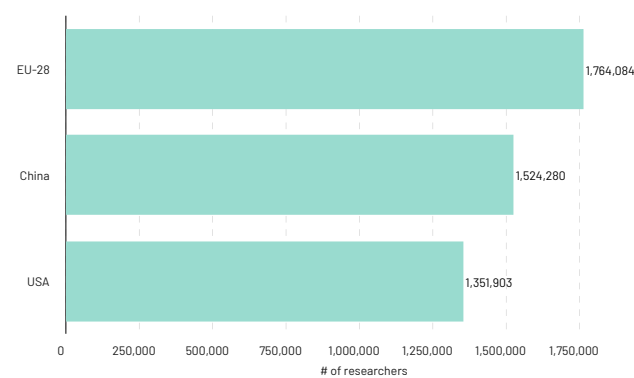
*"For the past decade or so, European VCs have been cheerfully ignoring the academic and scientific communities. That's because they have been making great returns from internet and mobile platforms, and have developed superb domain experience and expertise in these areas. Besides, making money out of science is very hard, and there are significant barriers to entry. But, to quote Bob Dylan, the times they are a changin'... First, the "easy" money from Web 2.0 is less obvious as this platform has reached maturity. Second, the many great challenges facing the world will require deep tech (or rather deep science) solutions. Third, the convergence of tech, AI, Genomics, etc. creating new "internet" type opportunities will create the next Googles and Amazons. Fourth, the desire for impact. A new generation of scientists, VCs, philanthropists, and entrepreneurs want to make the world a better place, not just get rich. They aren't interested in the next app for drone delivered pizzas. Fifth, universities are under pressure to engage with VCs and to enable the channelling of their research into the outside world. And finally, VCs can bring money, but more importantly their talent, to combine with deep tech/science so this channel becomes REAL"*



**Dave Norwood**  
Oxford Sciences Innovation

- As technology and, specifically, software continue their relentless march into every part of the economy, it will become critical for Europe to unlock the potential of its large research community. It will need to mobilise to help European tech companies succeed in new frontiers where tech meets science. The research community is a huge potential asset, exceeding both the US and China today in total numbers.

# of researchers in EU-28, China and the US



Source: Eurostat

- There are more than 1.8 million scientists and engineers across Europe, specialising in every field. Germany and the UK are the two largest homes to the European research community by far, with more than 300,000 in each respective country. France, Italy, Poland and Spain all also have sizeable communities of scientists and engineers.

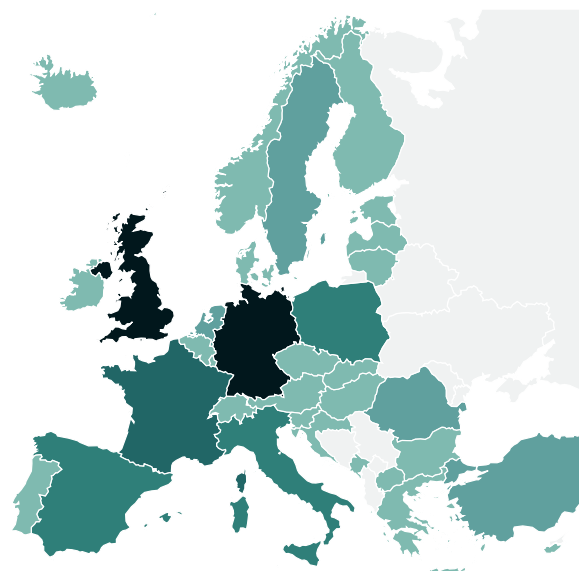
# of scientists and engineers by country

LEGEND

- upto 3,500,000
- 2,500,000 to 3,000,000
- 2,000,000 to 2,500,000
- 1,500,000 to 2,000,000
- 1,000,000 to 1,500,000
- 500,000 to 1,000,000
- upto 500,000

Source: *meetup*

Note:  
Scientists and engineers refer to persons with scientific or technological training who are engaged in professional work on science and technology. Data is sourced from Eurostat and gathered by CERN. Latest data is 2017.







*Europe has some of the world's leading research centres, and the talent coming out of these centres has increasing entrepreneurial ambitions. The trend is clearly upward.*



**Irina Haivas**  
Atomico

*"Europe is in the early days of tapping its R&D talent pool. There are still barriers here with regards to tech transfer and IP, access to funding to scale capital-intensive, research-based businesses, and to some degree, a perception barrier around the feasibility of 'commercially-driven,' non-academic careers. However, this is changing. The good news is that Europe has some of the world's leading research centers, and the talent coming out of these centers has increasing entrepreneurial ambitions. The trend is clearly upward."*

### ● The Nordics have the highest density of researchers per capita.

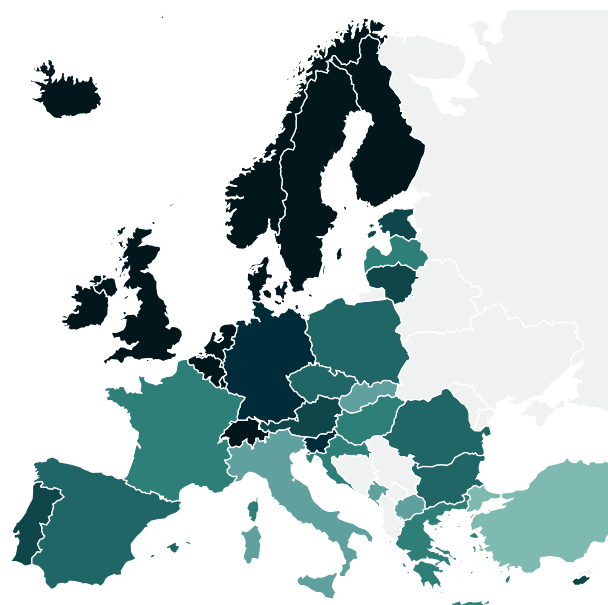
#### Share of scientists and engineers in total population

##### LEGEND

- upto 4.50
- 3.50 to 4.00
- 3.00 to 3.50
- 2.50 to 3.00
- 2.00 to 2.50
- 1.50 to 2.00
- 1.00 to 1.50
- 0.50 to 1.00
- upto 0.50

Source: Eurostat

Note:  
Scientists and engineers refer to persons with scientific or technological training who are engaged in professional work on science and technology. Data is sourced from Eurostat and gathered by CERN. Latest data is 2017.



*The openness and the sharing of information is something, I presume, tech companies will have to do more of in the future and hopefully they can learn from CERN in that regard.*



**Giovanni Anelli**  
European Organization for Nuclear Research (CERN)

*"CERN's natural environment is about collaboration and openness. By pooling together resources, brainpower and complementary expertise, CERN creates unique value that opens new doors for all. The result is more than the sum of what its Member States could create nationally, and so the benefit is more than a financial one. For this to work, CERN collaborates with a large number of partners and I believe this is something start-ups can learn from."*

*CERN has developed a collaborative model of working which is very special and its governance has proven it is capable of extraordinary advances in science and technology since its creation in 1954. The Large Hadron Collider and the discovery of the Higgs boson are concrete examples that highlight the success of this international collaboration. The openness and the sharing of information is something, I presume, tech companies will have to do more of in the future and hopefully they can learn from CERN in that regard."*

- The European tech ecosystem is built on top of a large pool of researcher talent that it has largely untapped.

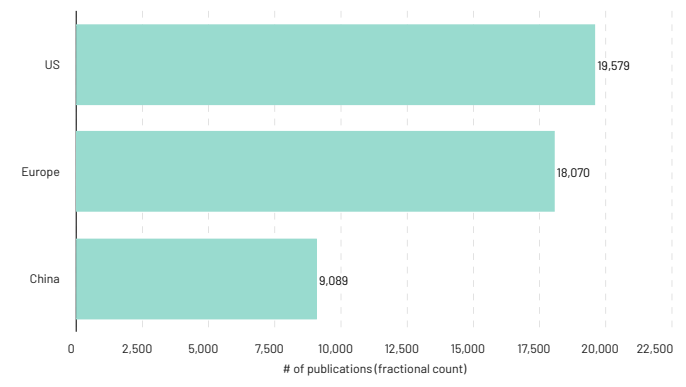
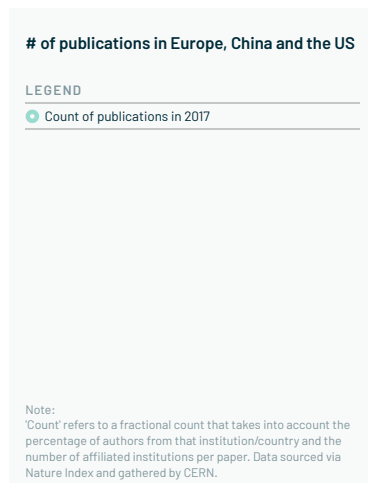
## EUROPEAN RESEARCHER TALENT

2m

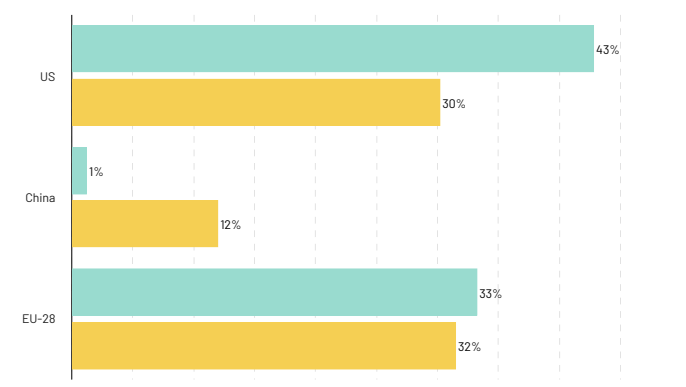
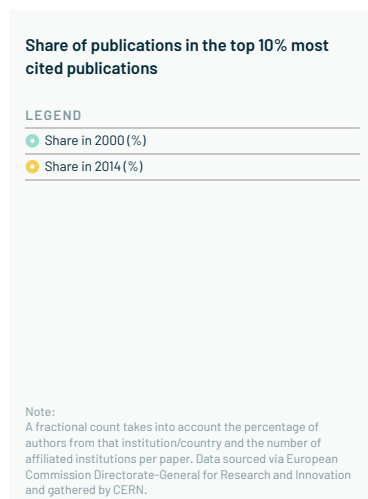
Total researchers in Europe

Source: Eurostat

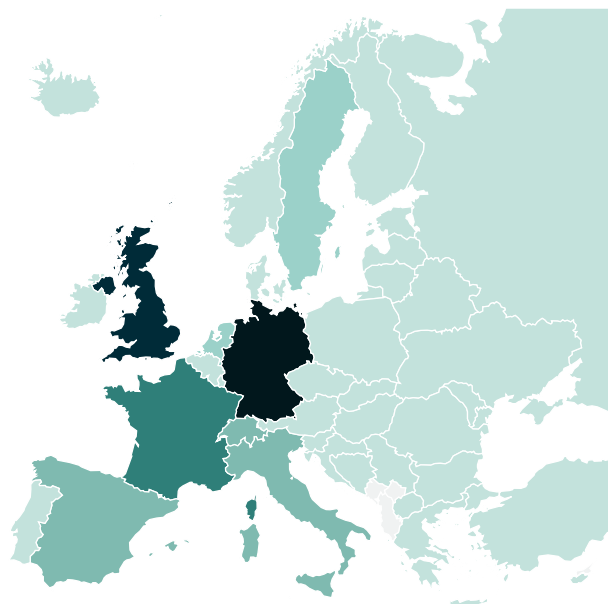
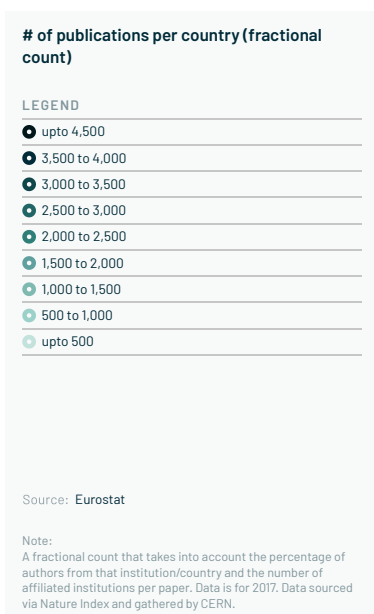
- Europe's research community is an ideas and knowledge factory and produces research at a level that is globally competitive and on par with the US.



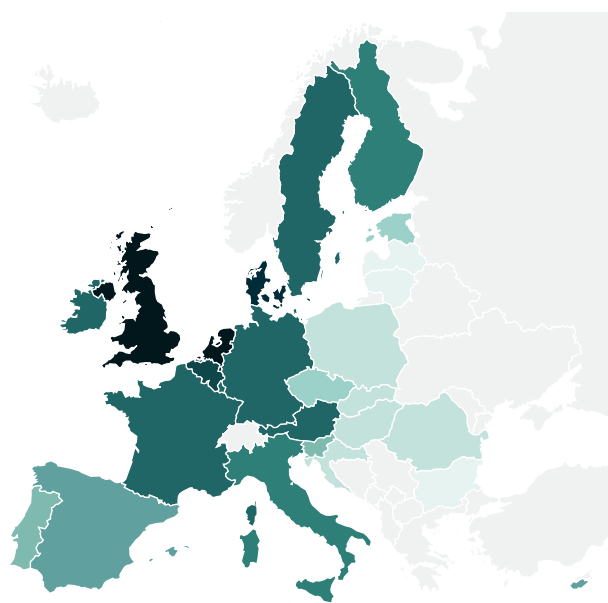
- But it is not just quantity, but also the quality of research that originates from Europe. The European research community leads the world by share of publications in the top 10% most cited, though China is gaining ground at an impressive rate.



- For its size, Switzerland is the publication powerhouse of Europe, driven by the strength of its world-leading research institutions such as ETH Zurich and EPF Lausanne.



- Even though the largest countries in Europe publish the most papers, the share of publications in the top 10% most cited reveals a wider group of countries contributing strongly to European research. European research talent is inherently distributed. As tech and research collide further, this will likely only further drive the already rich level of geographic diversity that characterises the European tech ecosystem.



- The European tech ecosystem is underpinned by a supply of world-class academic talent

#### WORLD-CLASS TECHNICAL UNIVERSITIES

31%

of the world's Top 100 engineering and technology universities globally are European.

Source: Eurostat

## Deepening Europe's frontier tech credentials

- Europe has experienced rapid growth in investments into deep tech.

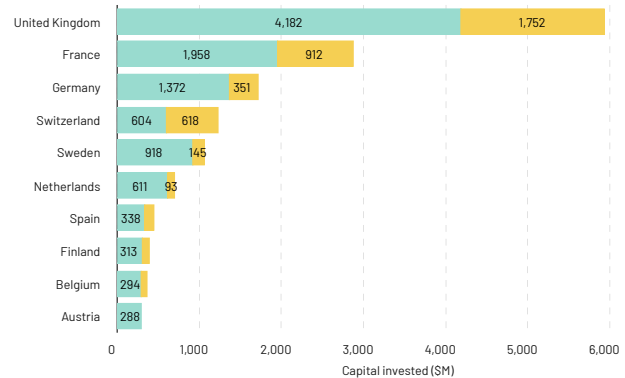
Capital invested (\$M) in European deep tech companies by country

LEGEND

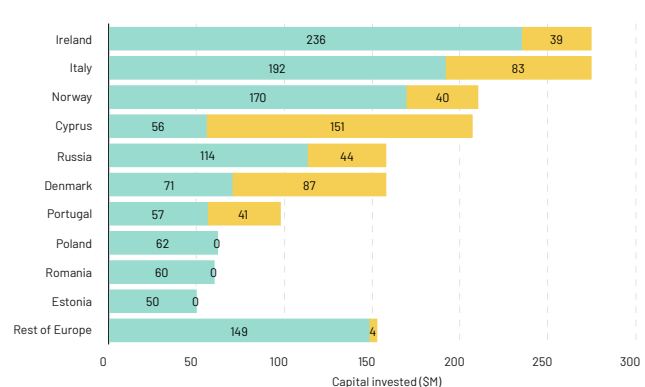
- 2013-2017
- 2018

Note:  
2018 based on 9 months to September 2018 and projection for Q4 2018 based on Q3 2018.

DATASET: TOP 10 COUNTRIES



DATASET: COUNTRIES 11-20



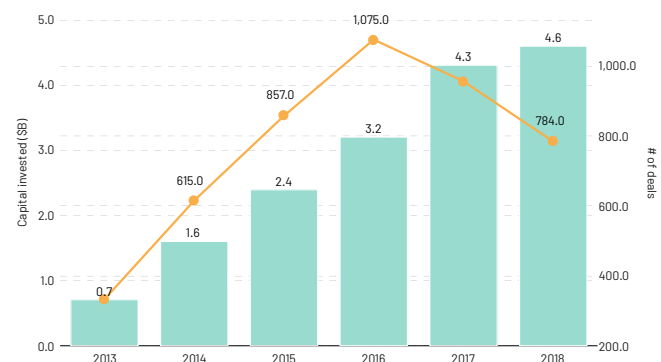
Source: dealroom.CO

Capital invested (\$B) in and # of deals closed by European deep tech companies

LEGEND

- Capital invested (\$B)
- # of deals

Note:  
2018 based on 9M to September 2018 and projection for Q4 2018 based on Q3 2018.



Source: dealroom.CO

- Many interesting deep tech companies have raised funding this year in Europe.

#### Selected investment rounds raised by European deep tech companies in 2018

	Industry	Location	Last round	Round size (\$M)
UiPath	Enterprise software	Romania	Series C	225
Ledger	FinTech	France	Series B	69
Celonis	Enterprise software	Germany	Series B	50
Darktrace	Legal security	United Kingdom	Series E	50
Meero	Media	France	Series B	45
Iceye	Media, Transportation	Finland	Series B	34
Navya	Robotics, Transportation	France	Series C	34
Varjo	Media	Finland	Series B	31
Medopad	Health, Enterprise software	United Kingdom	Series A	28
Tractable	FinTech	United Kingdom	Series B	25

Source:  dealroom.CO

Note:

Some of the numbers converted from EUR to USD with an FX rate of 1.13, the rate on 14 November 2018.

“



**Irina Haivas**  
Atomico

“Going forward, I can see more R&D based start-ups coming out of European universities, building off multidisciplinary teams of scientists and engineers and tackling some of the large challenges of our century like sustainability and health. These businesses will likely be global from day one. Europe will then need to make sure to keep (and fund) this talent here, by creating the right incentives for the ecosystem and adapting to the different requirements these businesses have in terms of funding and milestone expectations, new business models and talent.”

- Artificial Intelligence continues to dominate the deep tech landscape in terms of capital invested.

#### Capital invested (\$M) by deep tech sub-category

	2013	2014	2015	2016	2017	2018
Hardware	408	376	1,197	1,514	943	1,282
Internet of Things	62	223	555	837	577	684
Blockchain	45	133	66	171	223	651
3D	100	111	282	325	264	610
Big data	146	317	455	358	516	452
Robotics	10	35	94	187	243	368
Search	96	441	458	575	328	299
Virtual reality	7	32	160	304	652	244
Computer vision	23	3	106	115	107	237
Developer tools	78	156	97	142	688	205
Semiconductors	154	78	162	159	159	183
Nanotech	23	13	101	182	49	145
Predictive analytics	16	353	274	273	156	120
Drones	7	3	70	75	29	112
Deep learning	19	31	89	63	196	71
Speech & Hearing	23	71	2	37	35	14
Radar	9	21	5	19	13	0

Source:  dealroom.CO

Note:

Hardware includes hardware manufacturing. 2018 based on 9 months to September 2018 and projection for Q4 2018 based on Q3 2018.

“

Throughout history, Europe's been known for its innovations and even today, top research projects are led by European teams, so let's make sure this remains the case in the coming years.



**Rasmus Ekholm**  
Slush

“Europe is home to the largest share of top 100 AI research institutions globally in addition to being home to half of the top computer science institutions. Throughout history, Europe's been known for its innovations and even today, top research projects are led by European teams, so let's make sure this remains the case in the coming years.”

# 07

## Regulation

### Bridging Tech & Policy

The tech and policy worlds are moving closer together as they seek to bridge any differences and avoid talking past each other. Founder opinions are balanced on GDPR and the general direction of tech policy in the region. Data privacy and content copyright continue to dominate policy discussion, and regulators are overlooking new key technology fields.

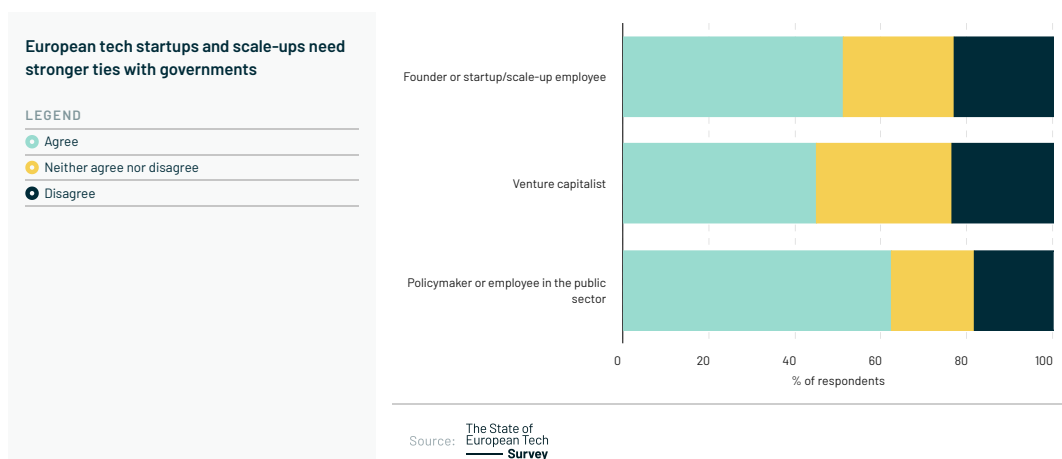
#### ARTICLES

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- 07.1 Embracing Regulation
- 07.2 Evolving Tech Policy in Europe
- 07.3 What Founders Want

## Embracing Regulation

- There is clear evidence of a strong desire from within Europe to build bridges between the tech and policy spheres. A majority of founders, investors and policymakers agree that there should be stronger ties between European tech startups/scaleups and governments.





- Only 24% of total respondents believe that regulation has had a negative impact on the European tech industry in the past 12 months. This varies, however, by occupation and region. Respondents from France are most positive on the impact of regulation, while founders skew slightly more negative than positive, but only by a fraction.

What impact has regulation in Europe had on the European tech industry in the last 12 months?

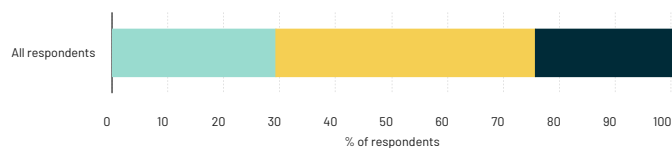
#### LEGEND

Positive

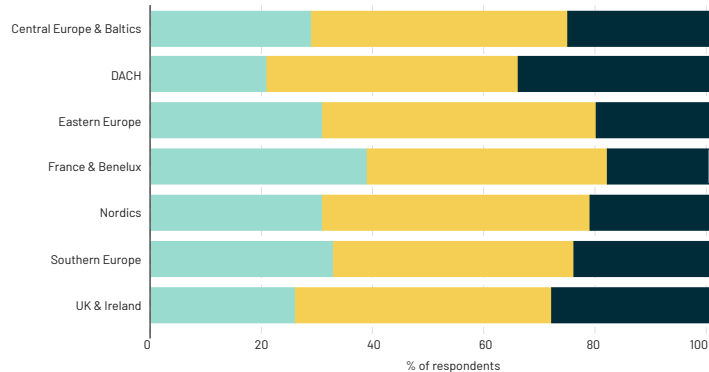
Neutral

Negative

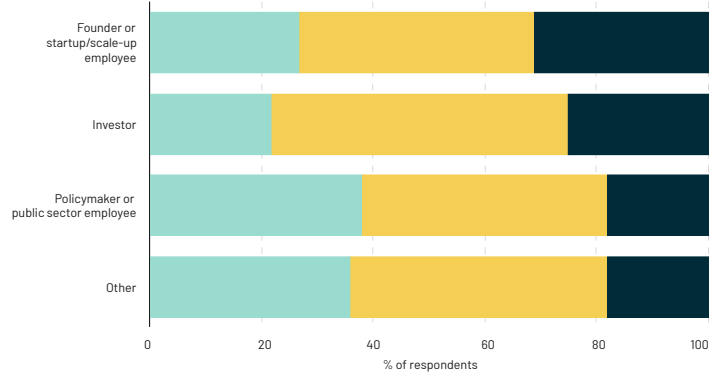
#### DATASET: ALL RESPONDENTS



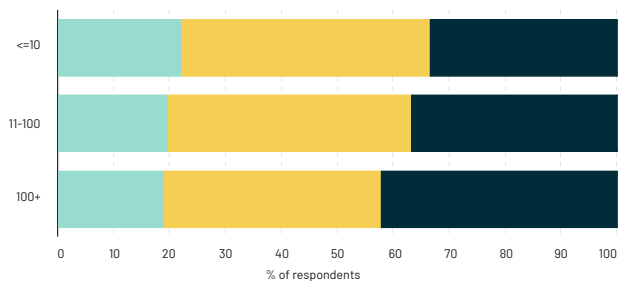
#### DATASET: SUBREGION



#### DATASET: OCCUPATION

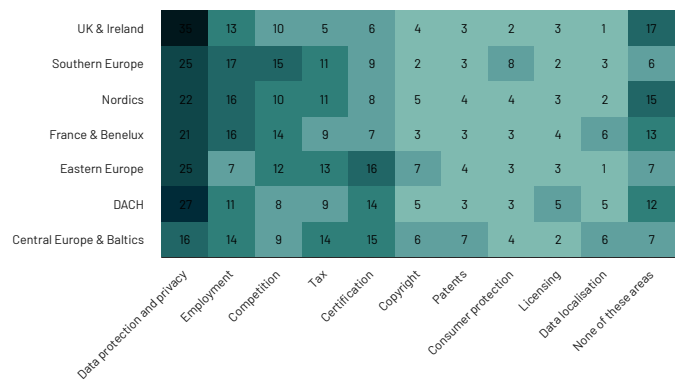
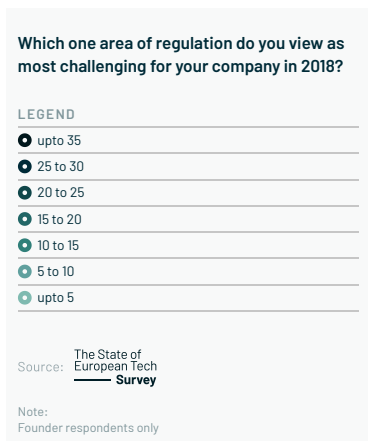


#### DATASET: COMPANY SIZE BY # OF EMPLOYEES

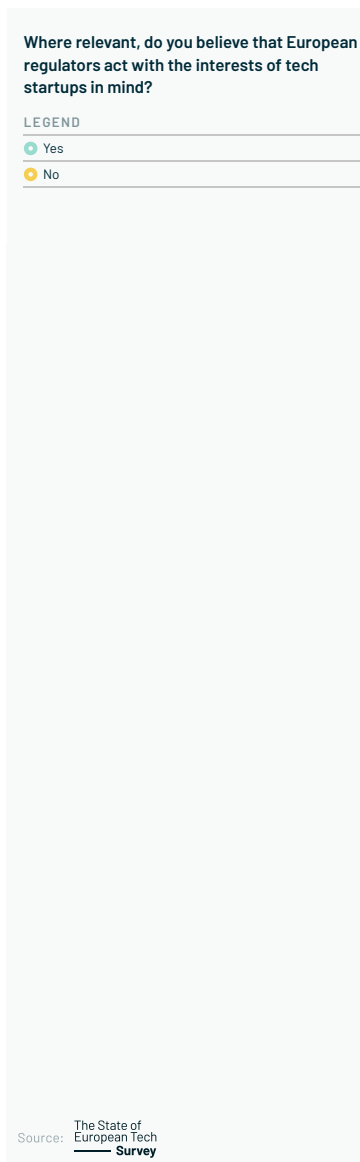


Source: The State of European Tech Survey

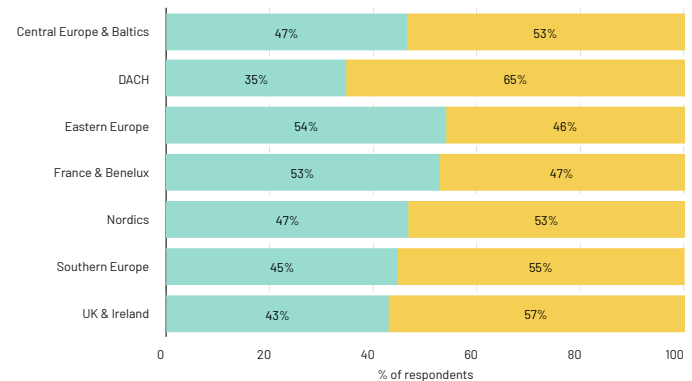
- Six months after the implementation of GDPR, Founders across Europe view data protection and privacy as the most challenging area of regulation for their business.



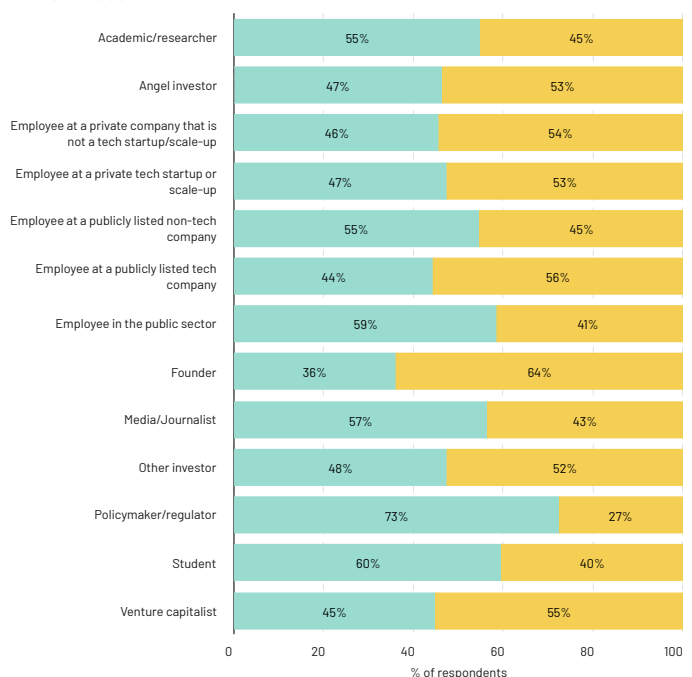
- There's a clear split in opinion within the industry on the question of whether European regulators act with the interests of tech startups in mind. Founders, most notably, are inclined to be sceptical of the motivations of European regulators, especially those from the DACH region.



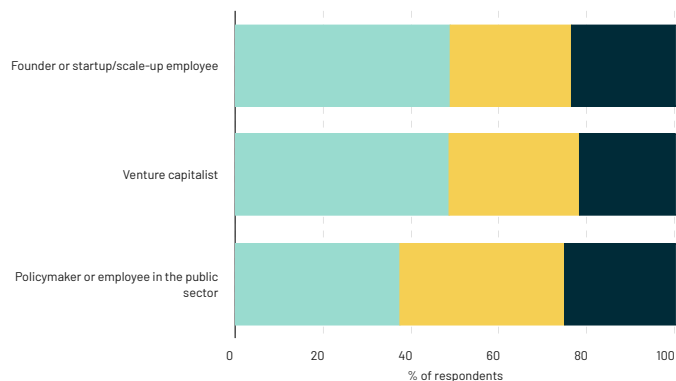
DATASET: SUBREGION



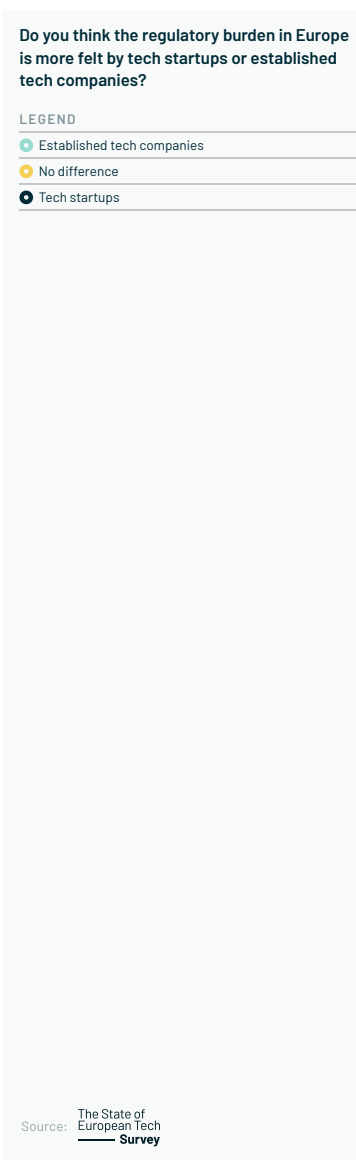
DATASET: OCCUPATION



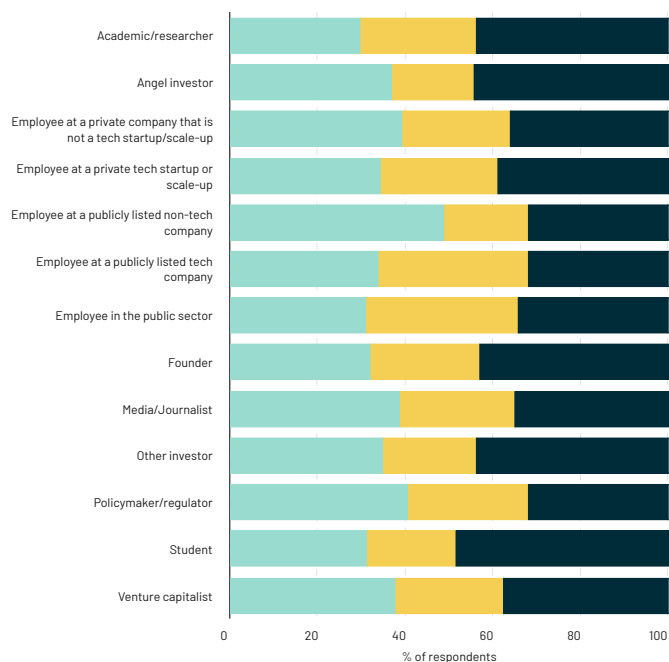
- This willingness to build bridges is important since key stakeholders in the European tech ecosystem take a majority view that European regulation makes it harder to start and scale a technology business in the region.



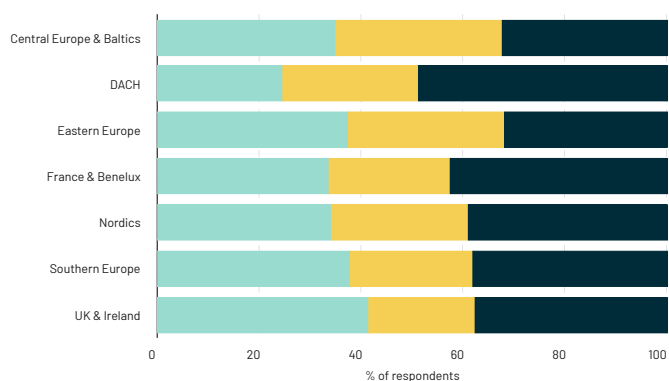
- Opinions on whether startups/scaleups or large established tech companies feels the regulatory burden more keenly are split. Both founders of startups/scaleups and those who work in public tech companies both tend to think that they should most of the regulatory burden.



DATASET: OCCUPATION



DATASET: SUBREGIONS



- A clear majority of the European tech ecosystem believes GDPR has been good for European consumers

## GDPR

# 60%

of all respondents agree that GDPR has been a good thing for European consumers, including 54% of European founders that are in agreement.

Source: The State of European Tech Survey

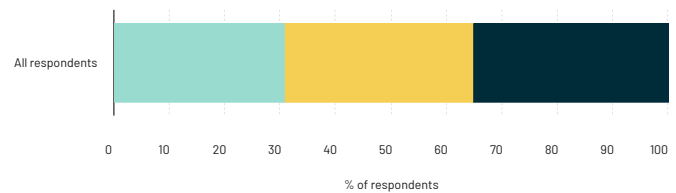
- The European tech industry's sentiment around the impact of GDPR is more balanced than might be expected. Founders are more likely to agree it's had a negative impact on their company than disagree, but not by a large margin. Counter-intuitively, perhaps, founders of larger companies (100+ employees) are more likely to agree it's had a negative impact than founders of smaller tech companies.

### GDPR has had a negative impact on my company

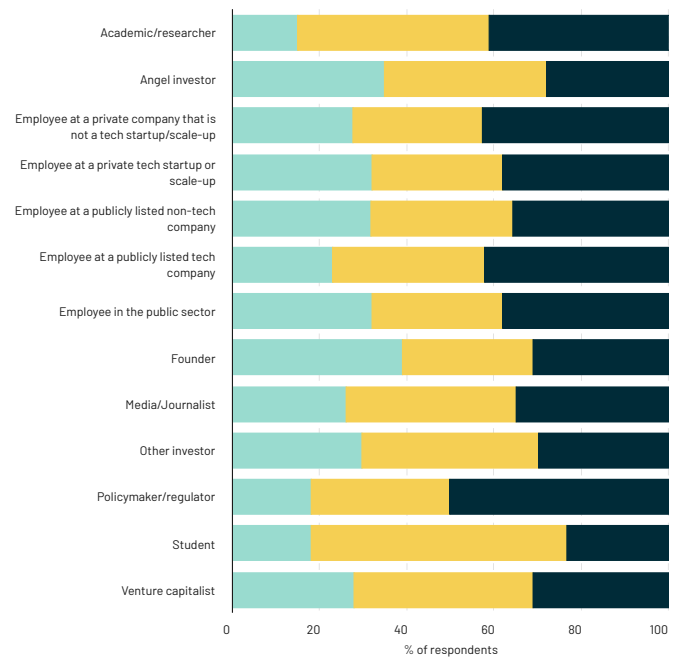
#### LEGEND

- Agree
- Neither agree nor disagree
- Disagree

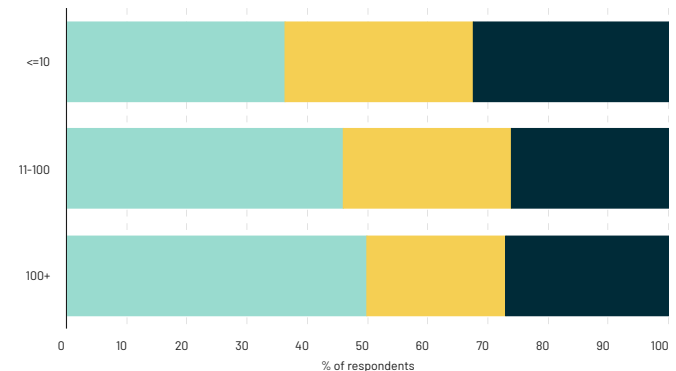
#### DATASET: ALL RESPONDENTS



#### DATASET: OCCUPATION



#### DATASET: COMPANY SIZE BY # OF EMPLOYEES



Source: The State of European Tech Survey

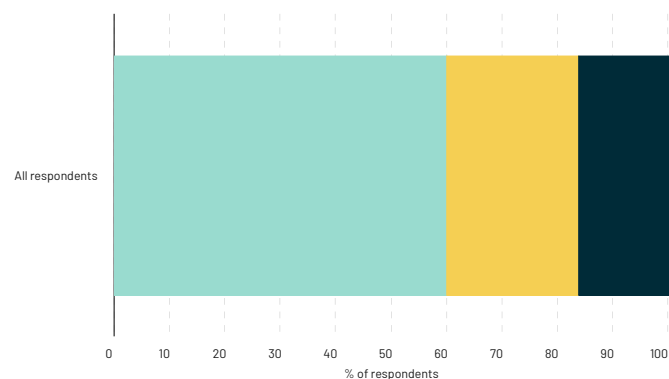
- Importantly, however, there is a very strong majority agreement across the board from all stakeholder types that GDPR has been a good thing for European consumers. One might say, therefore, that any perceived negative impact for companies is a justifiable cost of scaling more ethically.

#### GDPR has been a good thing for European consumers

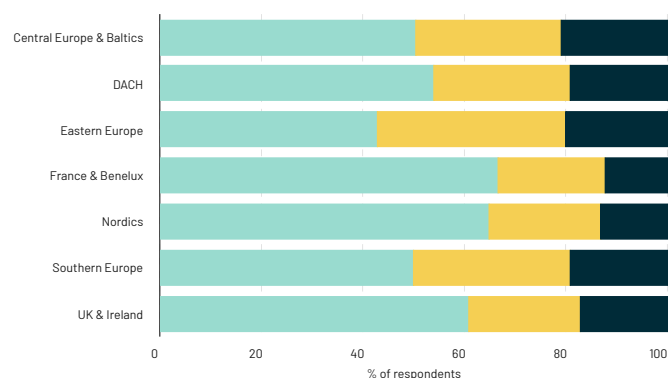
##### LEGEND

- Agree
- Neither agree nor disagree
- Disagree

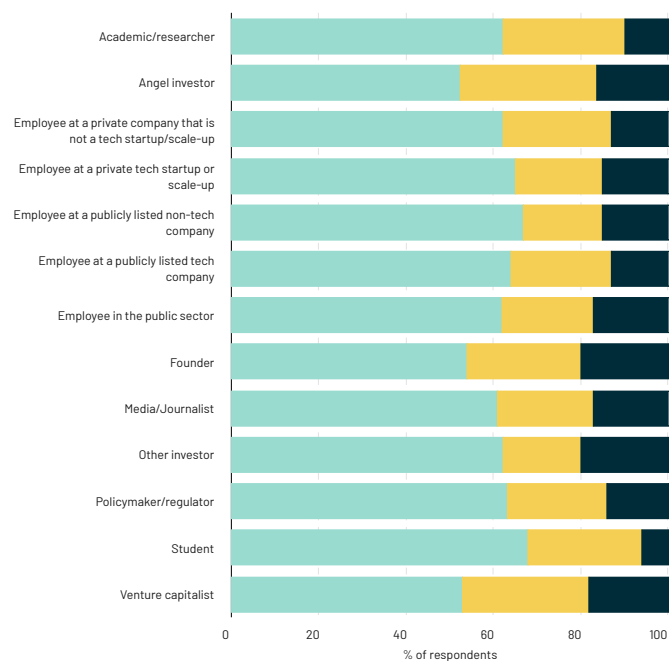
#### DATASET: ALL RESPONDENTS



#### DATASET: SUBREGIONS



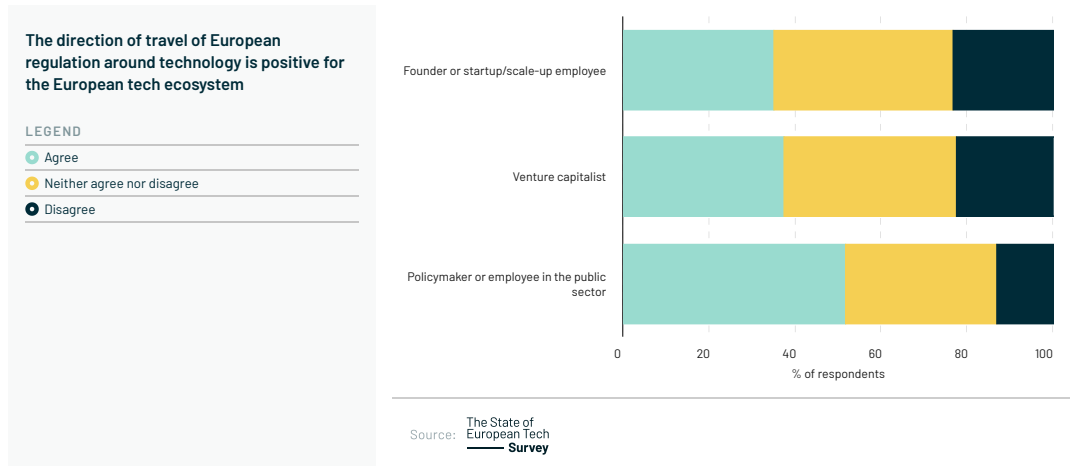
#### DATASET: OCCUPATION



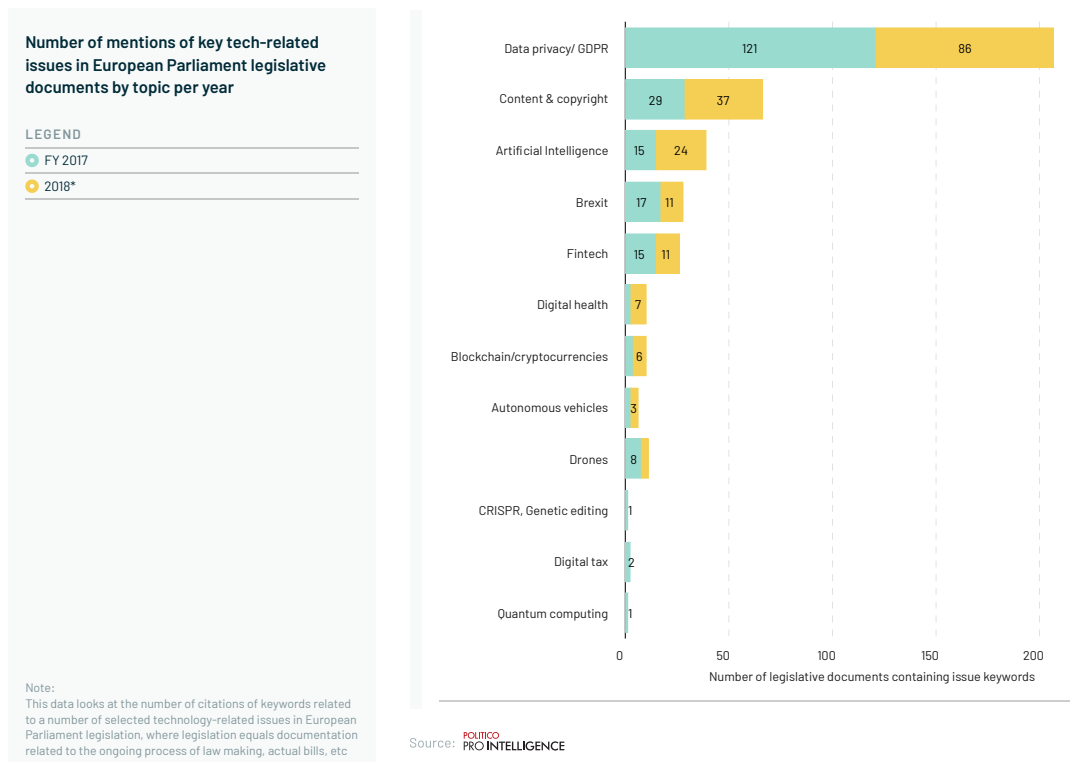
Source: The State of European Tech Survey

## Evolving Tech Policy in Europe

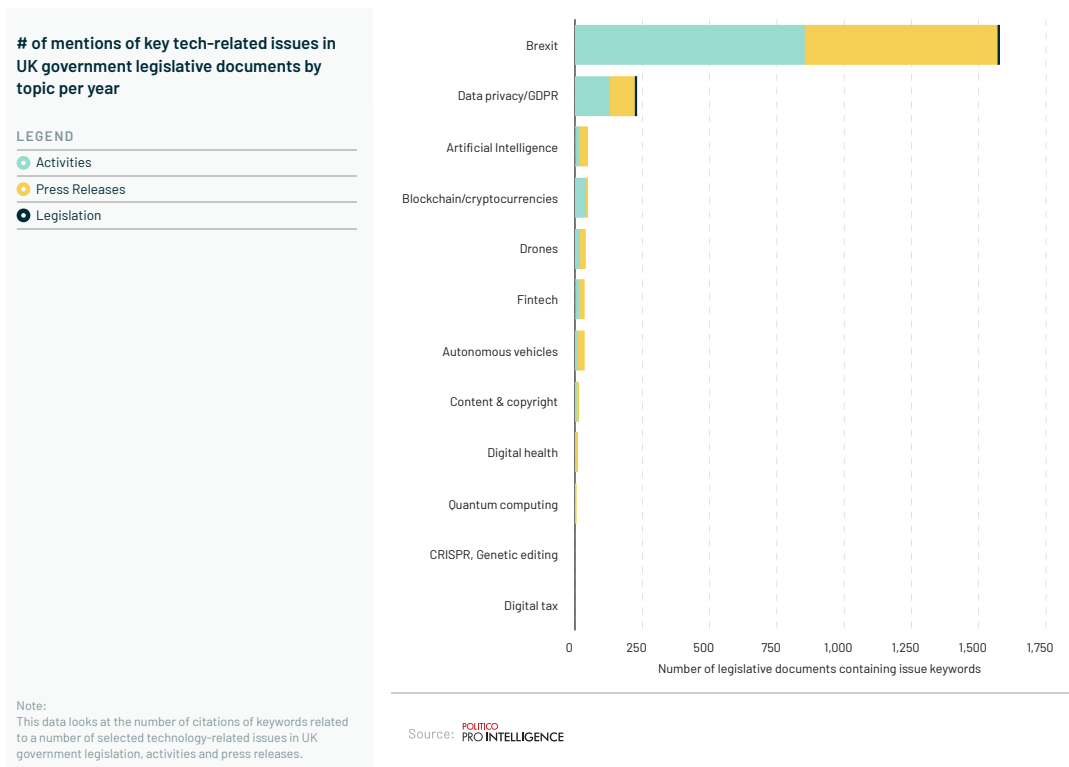
- Europe hasn't made up its mind about whether European regulation is going in the right direction. Founders and VCs are more likely to think it isn't, whilst those in the public sector or in policymaking roles are more favourable.



- The policy agenda in Europe around technology has been dominated by data privacy and content copyright for the past two years.



- In the UK, in particular, it's revealing to look at the relative level of discussion of key tech issues in UK government legislative documents, activities and press releases. Brexit, unsurprisingly, has swamped everything else.



- There's a clear growth in focus on Artificial Intelligence in European Parliament legislative documents, but in other key emerging technology fields, such as quantum computing or autonomous vehicles, there is more 'activity' and 'commentary' than actual legislation.

# of mentions of key tech-related issues in European Parliament legislation, activities and press releases by topic per year

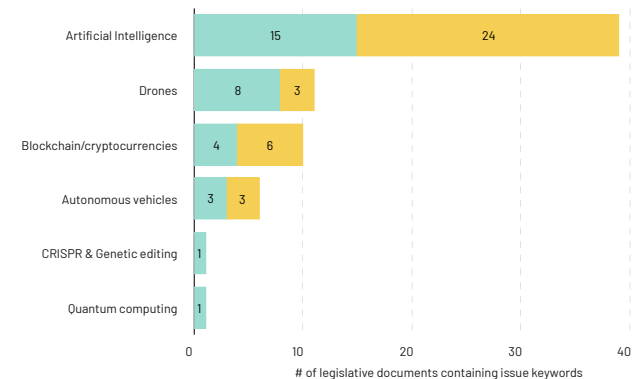
LEGEND

- 2017
- 2018

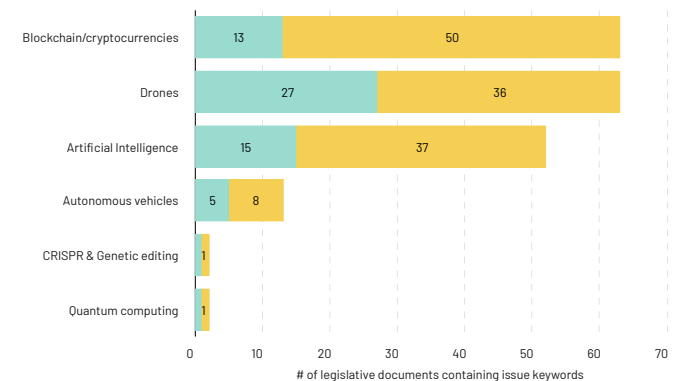
Source: POLITICO  
PRO INTELLIGENCE

Note:  
Legislation = the ongoing process of lawmaking, actual bills, procedures. Activities = the questions and speeches made by the elected legislators. Press Releases = the commentary and response from the various agencies and other moving parts of government.

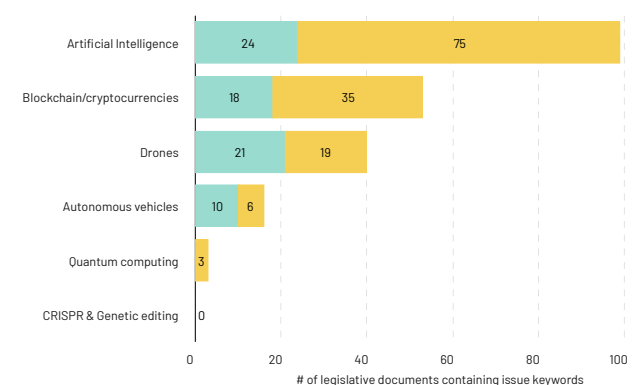
DATASET: LEGISLATION



DATASET: ACTIVITIES



DATASET: PRESS RELEASES



66 We urgently need Europe's governments to form long-term strategies around AI, while stepping up investment into education and basic research. The future is at stake.

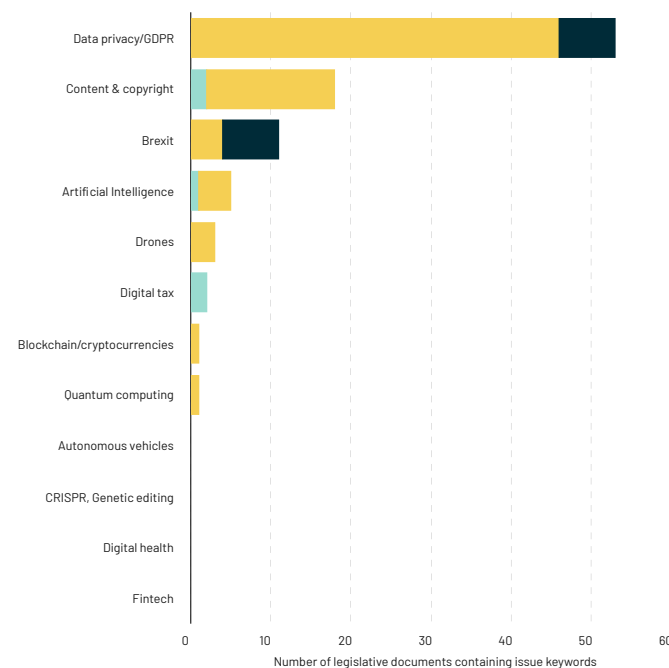
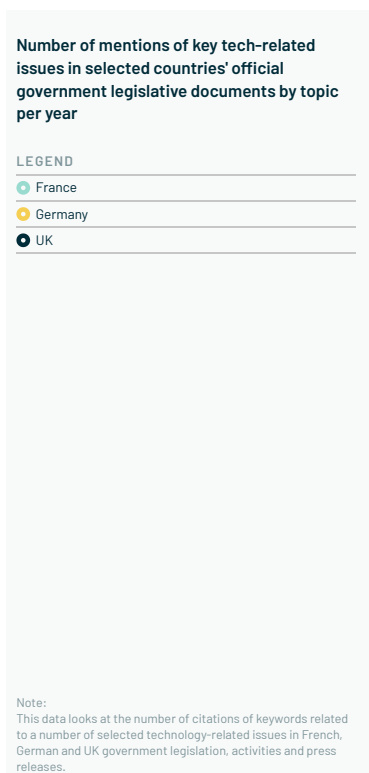


"As Spotify, iZettle and Skype have shown, success breeds more success. Europe is flourishing in terms of access to later stage capital, and an ecosystem required to support startups on their journey. Fintech, healthtech and social impact are just some verticals showing huge promise. But what worries me is that Europe hasn't gotten its act together on AI – our companies risk getting crushed by the giants in US and China. We urgently need Europe's governments to form long-term strategies around AI, while stepping up investment into education and basic research. The future is at stake."

Jacob de Geer  
iZettle



- The legislative process in key European countries has been dominated by data privacy, content copyright and Brexit with much less discussion related to other key new technology fields. In Germany, in particular, the issues of data privacy and content copyright have been top of mind for German policymakers.



Source: POLITICO PRO INTELLIGENCE

- European governments are stepping up their focus on AI with many countries having launched initiatives.

#### List of government AI initiatives in Europe

	Initiative	Launched/Announced
Finland	AI Strategy	Dec 2017
Denmark	Strategy for Digital Growth	Jan 2018
Italy	AI at the Service of Citizens	Mar 2018
France	AI Strategy	Mar 2018
European Union	Communication on AI	Apr 2018
UK	AI Sector Deal	Apr 2018
Sweden	AI Strategy	May 2018
Germany	AI Strategy	Nov 2018

Source: atomico®

“In the coming years, further balkanisation of regulatory regimes could create opportunities for some European companies, but at the cost of limiting the overall growth of the sector.”

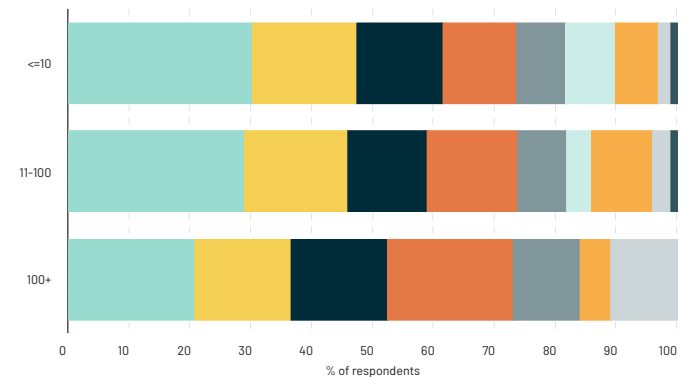


“Regulation is failing to keep pace with new technologies and business models, and the risk of overbearing regulation suffocating smaller companies remains very real. In the coming years, further balkanisation of regulatory regimes could create opportunities for some European companies, but at the cost of limiting the overall growth of the sector.”

**Chris Yiu**  
Tony Blair Institute for Global Change

## What Founders Want

- The larger the size of a company's employee base, the more that founders care about regulatory changes related to hiring flexibility and stock options.



Source: The State of European Tech Survey



*The goal for policymakers should be to use the tools at their disposal to tackle fragmentation and reduce the cost and bureaucracy associated with starting and scaling businesses in Europe.*



**Linda Griffin King**

*"The goal for policymakers should be to use the tools at their disposal to tackle fragmentation and reduce the cost and bureaucracy associated with starting and scaling businesses in Europe. However, as we look towards the next EU Commission and new legislative proposals which may follow, regulators need to better understand the impact of the changes they propose and find new ways to engage with founders at very early stages, many of whom are understandably unfamiliar with the world of policy. Equally European tech companies (of all sizes) need to engage in policy discussions if they are interested in long-term growth."*

# 08

## Investors & Investment

### Following the Money

2018 set a new record for total capital invested in the European tech ecosystem, as European VC's returns are now highly competitive against private equity in the U.S. The region's investor base has also evolved as high net-worth individuals and family offices participate, even as pension funds have not stepped up their commitments and are failing to democratise European tech's returns.

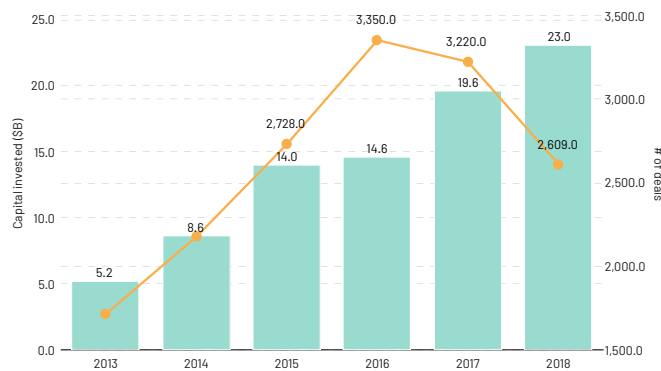
#### ARTICLES

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- 08.1 European Capital Flows
- 08.2 Capital Flows by Geography and Industry
- 08.3 Expanding European Investor Base
- 08.4 Bridging the Funding Gap
- 08.5 Diversifying the Institutional Investor Base

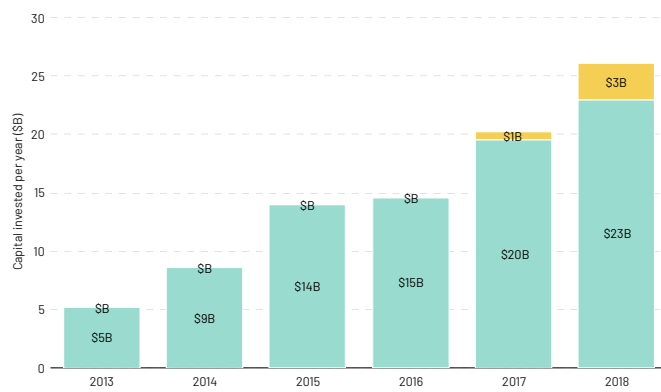
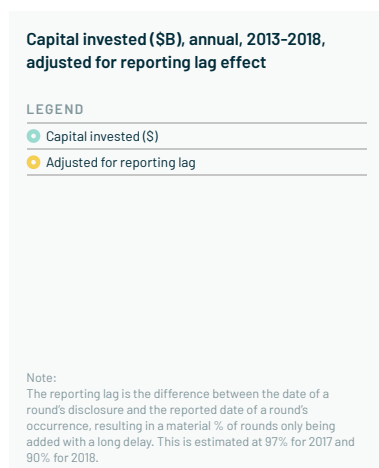
## European Capital Flows

- The European tech ecosystem will once again see a record level of capital investment in 2018. Total investment is projected to hit \$23 billion, comfortably exceeding the \$19.6 billion invested in 2017 and now 4.4x up compared to the levels of investment from 2013.



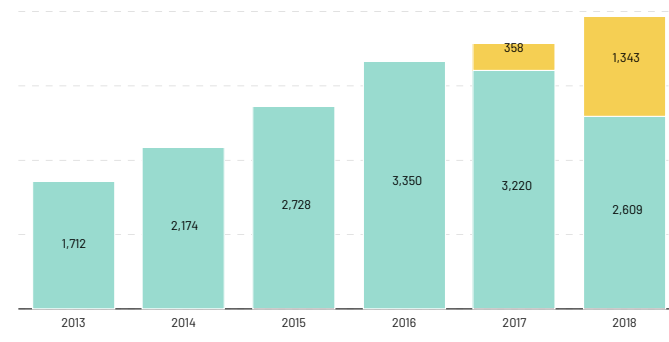
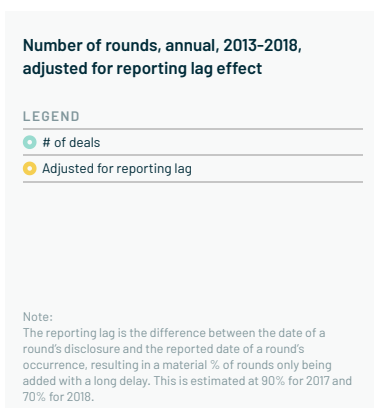
Source: dealroom.co

- For additional context on annual capital investment into the European tech ecosystem, it is important to understand there is a material trend in effect that means many rounds are only captured with a significant delay (see note). This 'reporting lag' means that the final totals are not known until a significant time period has elapsed after the end of the year in question. As such, we have indicatively adjusted the annual totals to account for this reporting lag to enable a like-for-like comparison of overall investment trends at the European level.



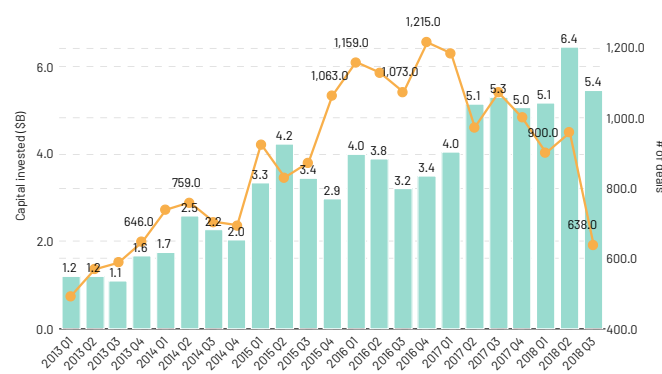
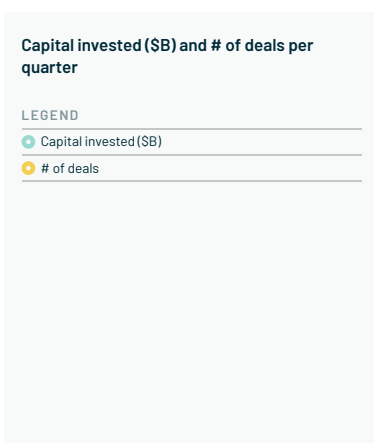
Source: dealroom.co

- For additional context on the annual number of deals in the European tech ecosystem, it is important to understand that there is a material trend in effect that means that many rounds are only captured with a significant delay (see note). This 'reporting lag' means that the final totals are not known until a significant time period has elapsed after the end of the year in question. As such, we have indicatively adjusted the annual totals to account for this reporting lag to enable a like-for-like comparison of overall investment trends at the European level.



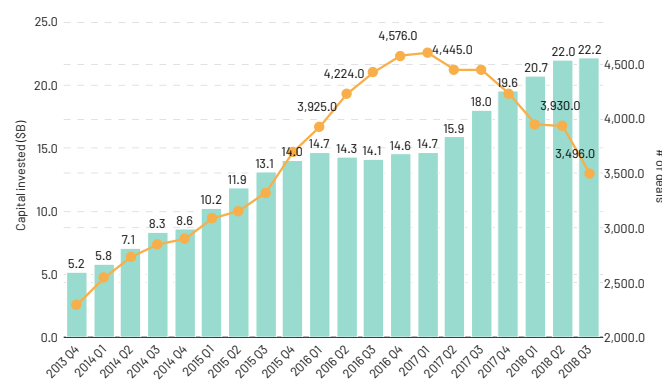
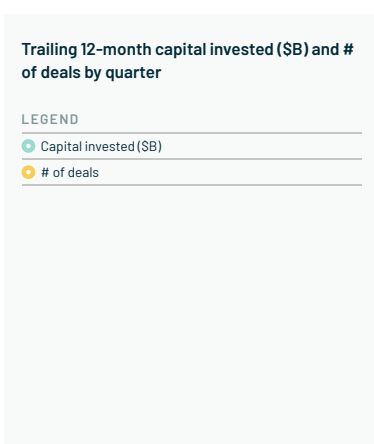
Source: [dealroom.co](https://dealroom.co)

- In 2013, \$1 billion of capital invested per quarter in Europe was the norm, but as the ecosystem has evolved that bar has consistently been raised higher. Europe has now seen more than \$3 billion invested per quarter for 15 consecutive quarters and even \$5 billion per quarter for the past 6 straight quarters.



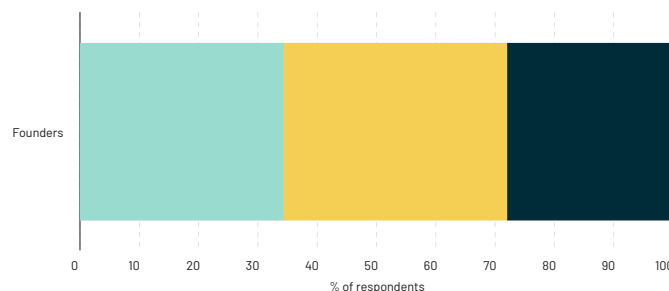
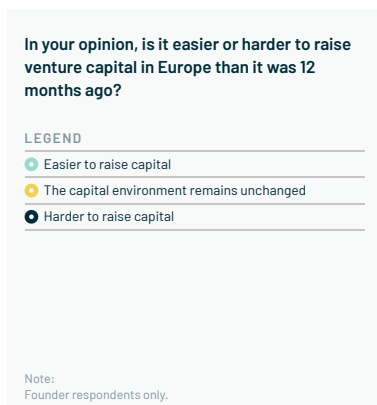
Source: [dealroom.co](https://dealroom.co)

- Of course, the exact quarterly investment amounts per quarter are subject to ups and downs so it is helpful to look at trailing 12-month totals to get a sense for the 'smoothed' long-term investment trends in the region. On this basis, the overall trajectory of the European tech ecosystem since late 2013 is very clear.



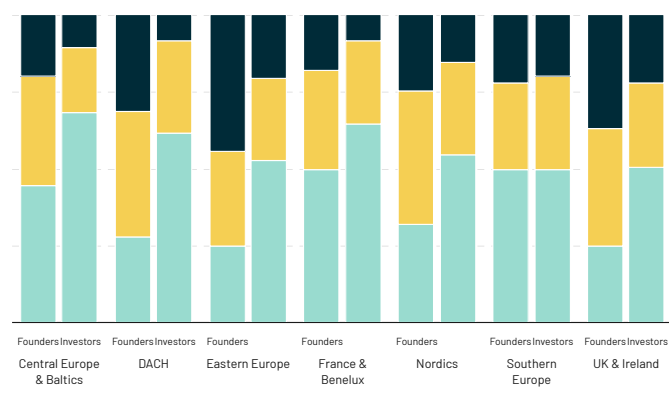
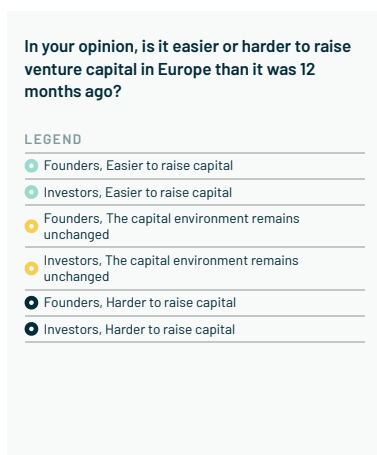
Source: [dealroom.co](https://dealroom.co)

- Sentiment within the European tech ecosystem around the capital raising environment is broadly positive. 72% of European founders and 84% of European investors believe that it has either stayed the same or has become easier to raise VC in Europe in the past 12 months. This is very similar to responses from 2017's survey, where the equivalent responses were 73% of founders and 83% of VCs.



Source: The State of European Tech Survey

- There are interesting perception gaps between founders and investors at the sub-regional level. The generally high levels of optimism among investors about the changing state of the capital raising environment in Europe over the past 12 months stand in contrast to a more mixed view from founders in the UK, DACH and Eastern Europe.



Source: The State of European Tech Survey

- Founders remain upbeat about the environment for raising capital in Europe

## RAISING CAPITAL IN EUROPE

71%

of European founders believe the capital environment has remain unchanged over the past 12 months, or become easier

Source: The State of European Tech Survey

- 2018 has again set a new record for total capital invested in the European tech ecosystem

## CAPITAL INVESTMENT IN EUROPE

\$23B

Projected total capital investment in European tech in 2018, up 4.3x since 2013

Source: dealroom.CO

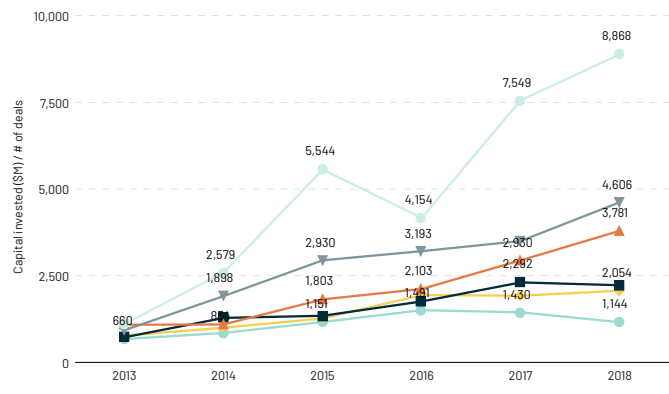
- Europe has seen a 7x increase in the number of large rounds of \$50M+, growing to 70 rounds in 2018 from just 10 in 2013.

#### Capital invested (\$M) and # of deals by round size

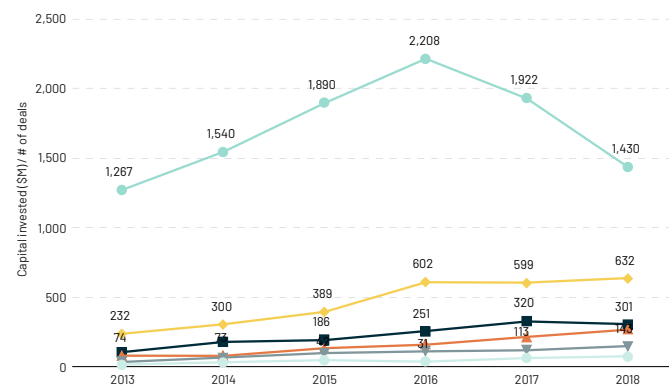
##### LEGEND

- Round size \$0-2M
- Round size \$2-5M
- Round size \$5-10M
- Round size \$10-20M
- Round size \$20-50M
- Round size \$50M+

#### DATASET: CAPITAL INVESTED



#### DATASET: # OF DEALS



Note:  
2018 based on 9M to September 2018 and projection for Q4  
2018 based on Q3 2018

Source: dealroom.co



## Capital Flows by Geography and Industry

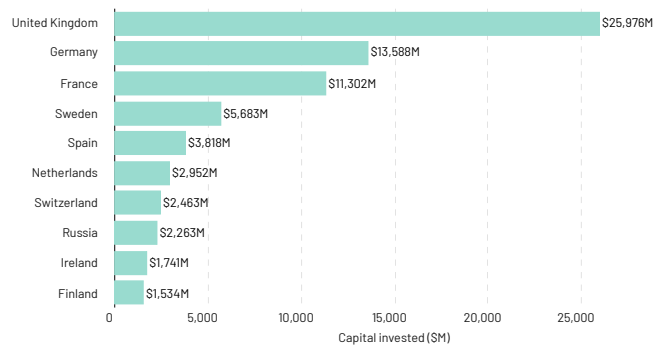
- On a cumulative basis since 2013, the UK has attracted \$26 billion in total capital investments, just under 2x as much as Germany, which ranks second with \$13.6 billion. Those two countries, together with France, account for almost 60% of total capital invested in Europe since the start of 2013.

Capital invested (\$M) by country, cumulative (2013 - 9M 2018)

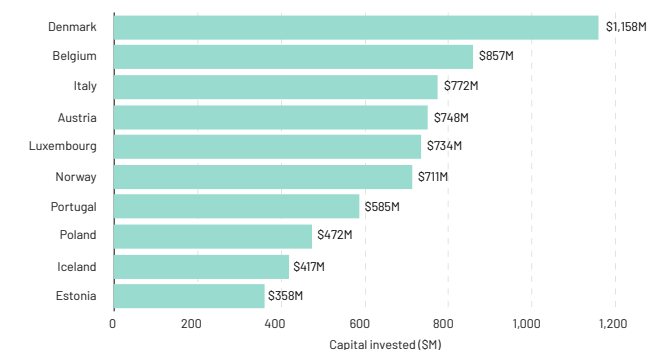
LEGEND

- Cumulative capital invested (\$M) 2013 - 9M 2018

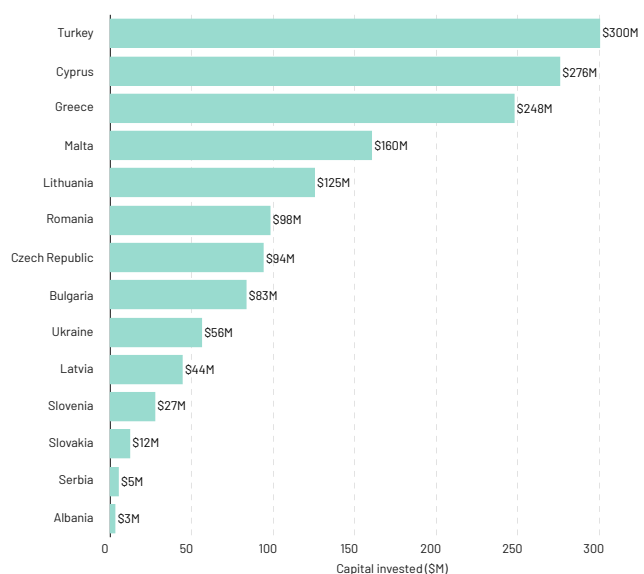
DATASET: TOP 10 COUNTRIES



DATASET: COUNTRY 11-20



DATASET: THE REST



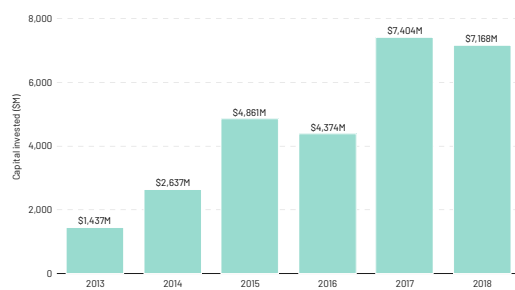
Source: dealroom.co



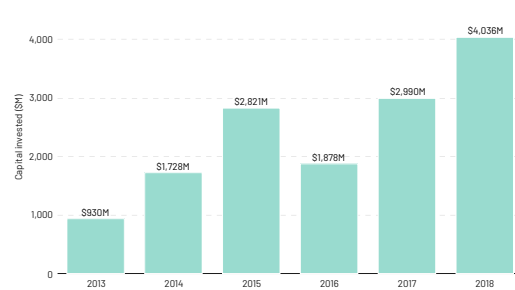
- The UK, France and Germany dominate stories about European investment levels given the multibillion-dollar scale of capital investments into these countries, but digging beneath the surface, there is an important trend emerging whereby many other European countries are now hitting their stride and are also on trajectories to consistently surpass \$1 billion+ in annual capital investment.

Capital invested (\$M)  
by country per year

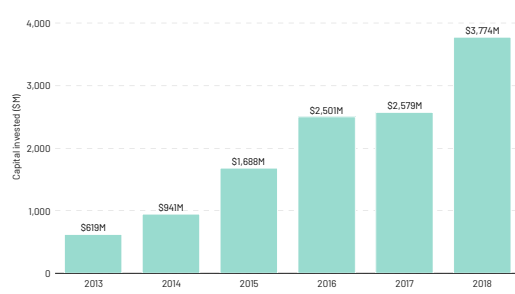
DATASET: UNITED KINGDOM



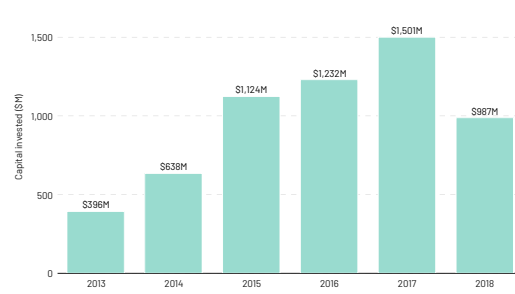
DATASET: GERMANY



DATASET: FRANCE



DATASET: SWEDEN



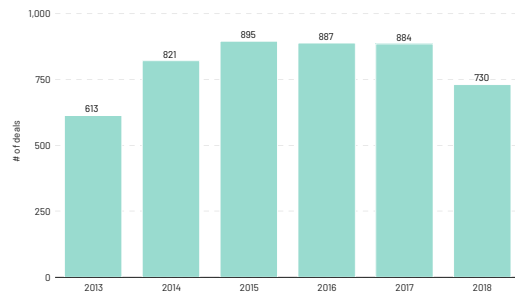
Note:  
2018 based on 9M to September  
2018 and projection for Q4 2018  
based on Q3 2018

Source: dealroom.CO

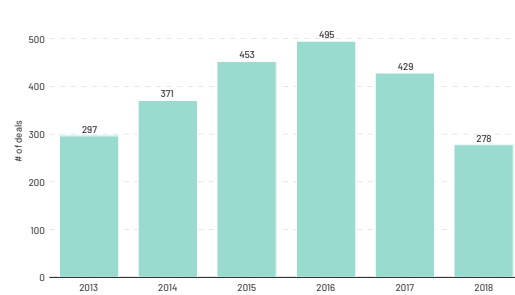
- Italy, Norway and Switzerland have seen the significant expansion of deal volume in 2018, as investment activity in these relatively less mature countries continues to grow. The overall top 5 countries in Europe by total number of deals in 2018 remains the same as in 2017 with the UK, followed by France, Germany, Sweden and the Netherlands.

# of deals by country  
per year

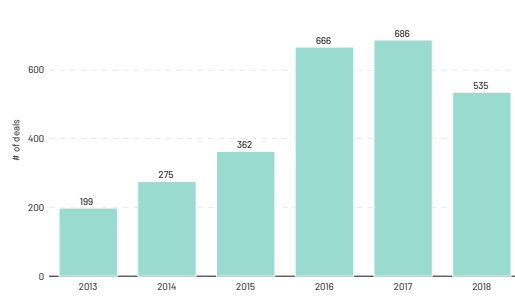
DATASET: UNITED KINGDOM



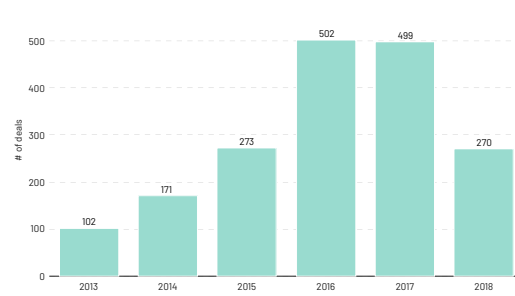
DATASET: GERMANY



DATASET: FRANCE



DATASET: SWEDEN



Note:  
2018 based on 9M to September  
2018 and projection for Q4 2018  
based on Q3 2018

Source: dealroom.CO

- The diversification of European tech is reflected at the city level too, as exemplified by increased capital invested into a new generation of cities that are not typically considered among Europe's most active tech hubs, such as Hamburg, Milan and Oslo.

Top 20 European hubs by capital invested (\$M)

	2013	2014	2015	2016	2017	2018
London	892	1,022	1,011	1,086	1,064	1,048
Paris	333	600	1,065	1,332	1,686	2,607
Berlin	592	1,165	2,270	948	1,824	2,221
Barcelona	70	262	334	258	568	1,044
Stockholm	374	522	916	1,044	1,016	793
Hamburg	18	82	134	247	191	761
Madrid	67	109	116	263	307	441
Dublin	98	128	99	332	309	420
Oxford	9	32	135	201	53	372
Cambridge	20	49	94	74	116	352
Zurich	70	55	53	55	110	321
Helsinki	184	79	83	127	108	290
Moscow	130	295	72	127	608	286
Copenhagen	22	72	135	91	64	262
Munich	111	109	167	170	253	251
Tallinn	24	18	53	16	6	249
Amsterdam	218	556	277	144	354	240
Oslo	8	12	57	119	121	207
Milan	11	36	44	131	63	148
Lausanne	17	4	31	102	28	138

Note:  
2018 annualised based on data to September 2018

Source:  dealroom.co

- This trend is also reflected in data showing deal volume by city, where the rise in investment activities in new generation tech hubs like Milan and Oslo has been significant in 2018.

# of deals in Top 20 European hubs (ranked by capital invested in 2018)

	2013	2014	2015	2016	2017	2018
London	89	80	80	80	58	188
Paris	126	174	223	352	332	288
Berlin	184	238	261	271	210	149
Barcelona	47	66	91	93	105	71
Stockholm	46	102	157	305	312	209
Hamburg	12	16	30	39	20	19
Madrid	65	53	69	60	56	49
Dublin	38	36	41	95	49	47
Oxford	3	8	11	10	11	24
Cambridge	9	18	20	24	19	27
Zurich	14	29	31	35	42	52
Helsinki	34	48	57	67	67	51
Moscow	45	38	28	65	71	67
Copenhagen	27	38	47	39	56	44
Munich	40	43	47	49	47	48
Tallinn	13	19	17	20	8	12
Amsterdam	71	77	123	115	97	84
Oslo	9	10	14	50	45	72
Milan	23	34	38	47	35	64
Lausanne	4	4	14	23	7	12

Note:  
2018 annualised based on data to September 2018.

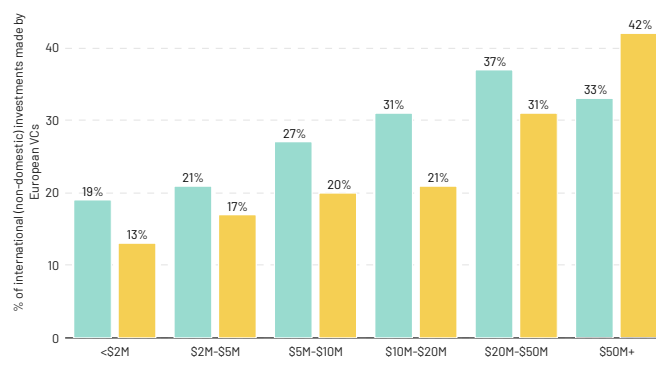
Source:  dealroom.co

- On average, approximately one-third of all investments into European tech companies by European VCs involve a cross-border transaction, where an investor from one country invests into a company from another European country. The larger the investment round, the greater the share of total investment activity that happens in this way.

Share of investments made by European VCs into international (non-domestic) companies by round size

LEGEND

- 2013 - 2015
- 2016 - 9M 2018



Source: [dealroom.co](https://www.dealroom.co)

- Fintech remained the single largest vertical for capital investment in Europe in 2018

#### CAPITAL INVESTMENT BY INDUSTRY

**\$5B**

projected total capital investment into European fintech companies in 2018

Source: [dealroom.co](https://www.dealroom.co)



Photo: Jussi Hellsten

- There is a high level of industry diversity in terms of where capital is being invested in the European tech ecosystem at scale. The dominant industries in 2018 are fintech, software for enterprise applications, digital health and transportation, all of which are on track to be in excess of \$2.5 billion in total capital invested in 2018. Beyond those four industries, there are a further four industries that will all surpass \$1 billion in capital invested this year.

### Capital invested (\$M) by industry

#### LEGEND

- Fintech
- Enterprise software
- Health
- Transportation

#### LEGEND

- Home
- Media
- Energy
- Marketing
- Fashion

#### LEGEND

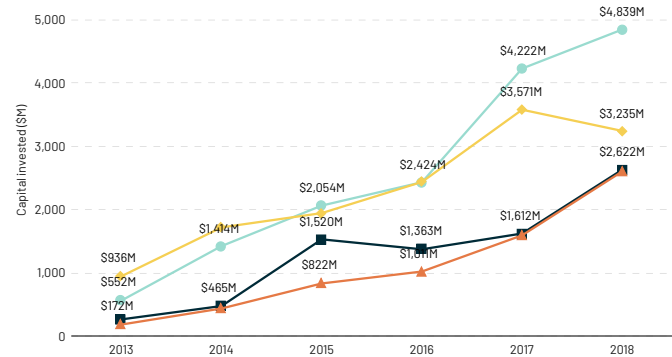
- Travel
- Food
- Internet of Things
- Education
- Gaming
- Real estate

#### LEGEND

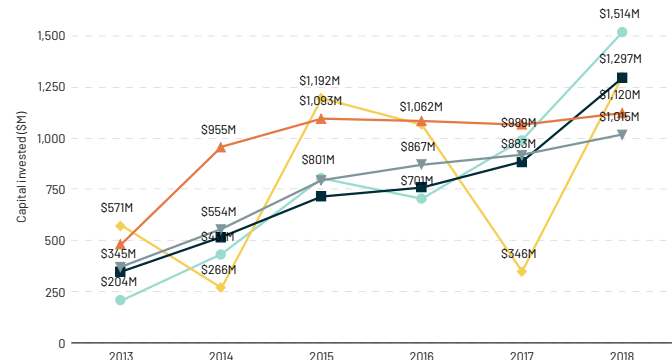
- Music
- Robotics
- HR & Recruitment
- Construction
- Semiconductors
- Security
- Telecom

Note:  
2018 based on 9M to September 2018 and projection for  
Q4 2018 based on Q3 2018.

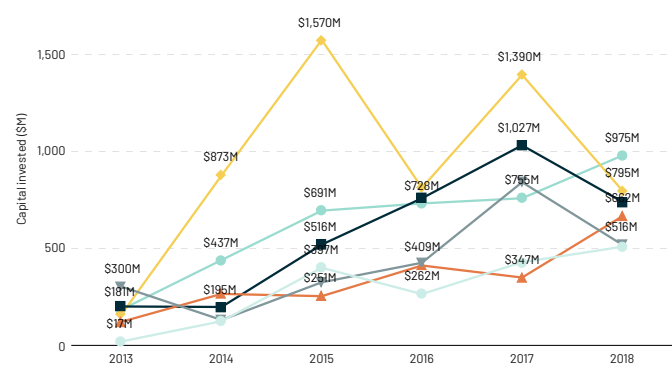
### DATASET: CAPITAL INVESTED \$2B+ IN 2018



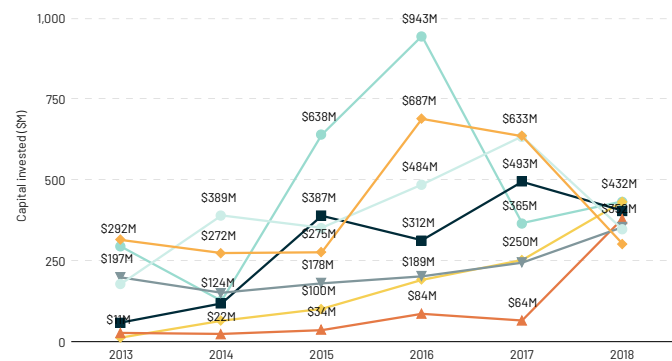
### DATASET: CAPITAL INVESTED \$1B-\$2B IN 2018



### DATASET: CAPITAL INVESTED \$500M-\$1B IN 2018



### DATASET: CAPITAL INVESTED \$250M-\$500M IN 2018



Source: [dealroom.co](https://www.dealroom.co)

## Expanding European Investor Base

- One of the most critical ways in which the European tech ecosystem has evolved has been the buildout of the investor base supporting it, which has grown in depth and, importantly, sophistication. One way to demonstrate the remarkable expansion of the investor base is to look at the number of unique institutional investors that have made at least one investment in European tech per year. In 2018, this reached more than 2,500 unique institutions, up 2.8x since 2013

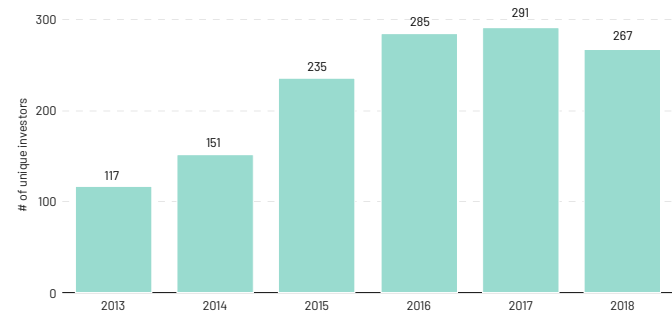
# of unique institutions that have participated in at least 1 and 5 investment rounds in Europe per year

#### LEGEND

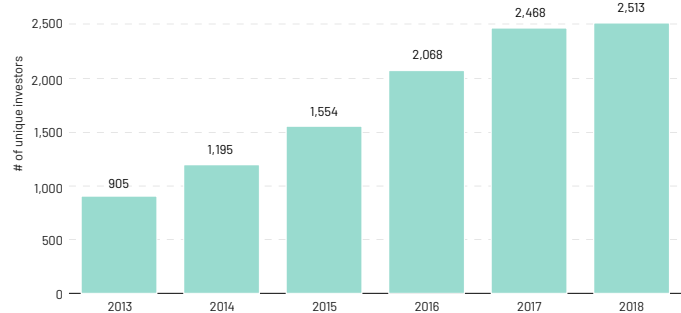
Unique investors

Note:  
Number of unique investors (incl. investment funds, corporate investors & accelerators, but excl. angel investors) that have participated in at least 1 investment round per year. 2018 annualised based on data to September 2018.

#### DATASET: AT LEAST 5 ROUNDS



#### DATASET: AT LEAST 1 ROUND



Source: dealroom.co

- It's important to note, however, that more capital and more investors alone are not enough. In order to maximise the chances of success for early-stage European startups, it's important that capital is allocated to sophisticated investors best able to support young companies as they navigate the scaling journey. This is proven in data. Startups raising Seed from top investors are significantly more likely to raise a Series A.

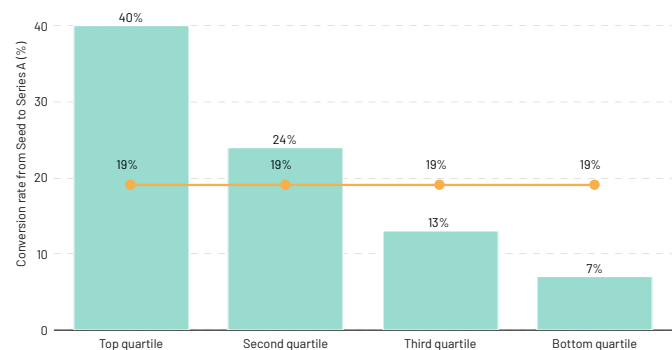
Median conversion rates to Series A within 36 months of Seed round, by investor quartiles

#### LEGEND

Conversion to Series A (%)

Median conversion rate to Series A (%)


Note:  
Based on disclosed Seed and Series A rounds, conversion rates calculated for VC funds that made at least 8 Seed rounds since 2012, and at least 75% of first investments at Seed/Pre-Seed. See: <https://blog.dealroom.co/the-journey-to-series-a-in-europe/>



Source: dealroom.co

- European banks are clearly leading the charge as the most active and frequent corporate investors in the European tech ecosystem with many having built substantial tech company portfolios in Europe

Top 10 most active corporate investors in European tech		Country	City	# of rounds in the last 12M	Portfolio size in Europe	Portfolio % in Europe
	BNP Paribas	France	Paris	28	85	81
	ZKB - Zürcher Kantonalbank	Switzerland	Zurich	20	42	98
	Next47 (Siemens)	Germany	Munich	13	13	14
	Barclays	United Kingdom	London	10	35	65
	Allianz X	Germany	Munich	9	6	43
	Robert Bosch Venture Capital	Germany	Stuttgart	9	21	52
	Sabadell Venture Capital	Spain	Barcelona	8	20	100
	Deutsche Telekom Capital Partners	Germany	Hamburg	8	36	44
	AXA Venture Partners	France	Paris	8	18	44
	Axel Springer	Germany	Berlin	7	71	76

Source:  dealroom.CO

- Corporate investors are very active in the European tech ecosystem

## CORPORATE INVESTMENT ACTIVITY

681

unique corporate investors have invested in at least one investment round in Europe in 2018, up more than 3x from 220 in 2013

Source:  dealroom.CO

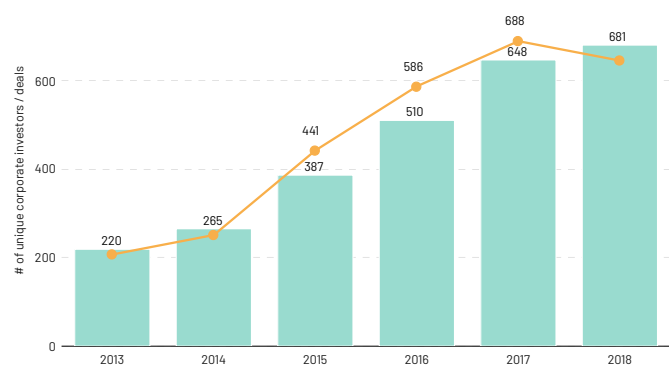
- The growth in the investor base has been supported by a diverse set of new entrants that are deploying capital in European tech for the first time. As in other regions, corporate investors have become active in Europe in significantly greater numbers.

# of unique corporate investors per year and number of rounds involving at least one corporate investor

### LEGEND

-  # of unique corporate investors
-  # of deals

Note:  
Unique corporate investor count is based on number of corporate (i.e. non investment fund) investors that have participated in at least 1 round per year. 2018 annualised based on data to September 2018.



Source:  dealroom.CO

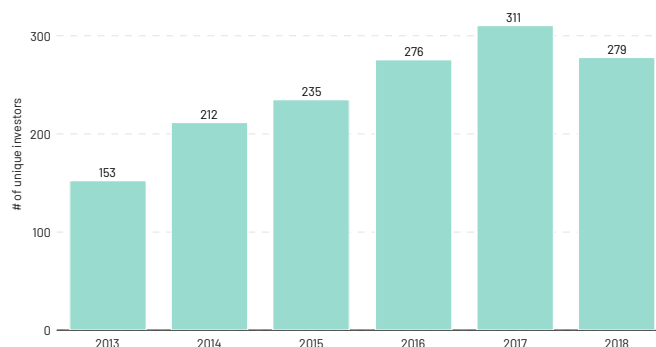
- US investors continue to invest actively in European tech companies, although the number of unique institutions that have participated in at least one investment round in 2018 is down slightly on 2017.

# of unique US institutions that have participated in at least 1 investment round in Europe per year

LEGEND

● # of unique US investors

Note:  
Number of unique investors (incl. investment funds, corporate investors & accelerators, but excl. angel investors) that have participated in at least 1 investment round per year. 2018 annualised based on data to September 2018.



Source: dealroom.co

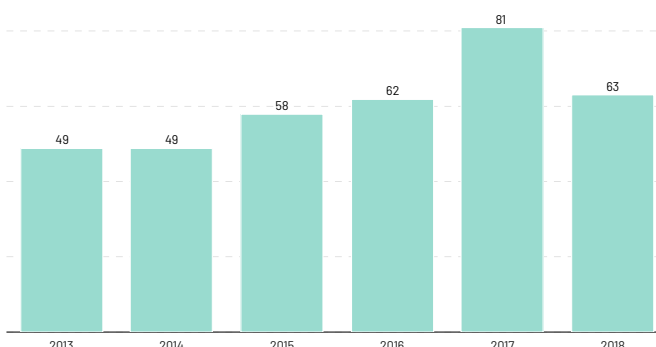
- The top US investors continue to invest actively in Europe, though they remain opportunistic and selective

# of deals made by Tier 1 US investors

LEGEND

● # of deals

Note:  
Based on investment rounds in Europe led by a selection of 22 leading US VC funds. 2018 annualised based on data to September 2018.



Source: dealroom.co

- The influence of Asian investors in the European tech ecosystem has grown significantly in recent years and hit a new record in 2018 in terms of capital invested in rounds involving Asian investors, approaching close to a projected \$4billion, up from less than \$200 million in 2013.

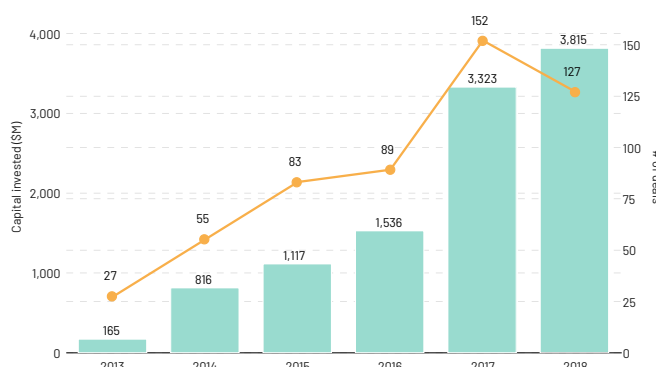
Capital invested (\$M) by # of deals involving Asian investors

LEGEND

● Capital invested (\$M)

● # of deals

Note:  
2018 annualised based on data to September 2018



Source: dealroom.co



- Asian investors are starting to deploy large sums of capital into European tech startups

## ASIAN INVESTMENT ACTIVITY IN EUROPE

# 23x

Increase in total investment into European tech companies via rounds involving Asian investors over the past 5 years, from less than \$200million in 2013 to a projected \$3.8 billion in 2018

Source:  dealroom.co

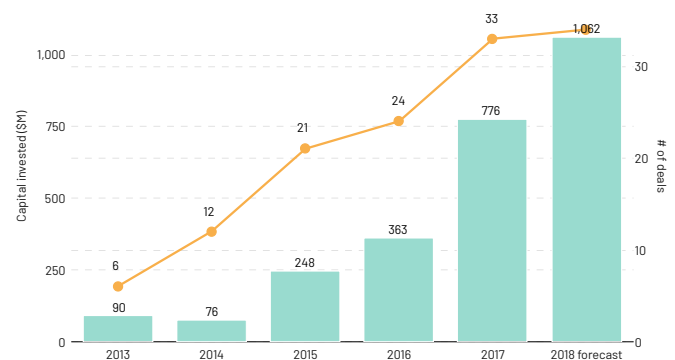
- The rapid growth in investor interest in Europe from Asia has been underpinned by a large expansion of capital invested in Europe from China. Chinese investors will have participated in rounds totalling more than \$1 billion in commitments to European tech companies in 2018 for the first time, a more than 10x increase since 2013.

Capital invested (\$M) and # of deals by Chinese investors in Europe

### LEGEND

- Amount (\$M)
- # of deals

Note:  
Forecast created by Dealroom.co



Source:  dealroom.co



Photo: Jussi Hellsten



## Bridging the Funding Gap

- European VCs are on track for a third consecutive year of raising more than \$8 billion and have raised more than \$40 billion since 2013. Larger funds (>€100 million) account for a growing share of total funds raised in the region.

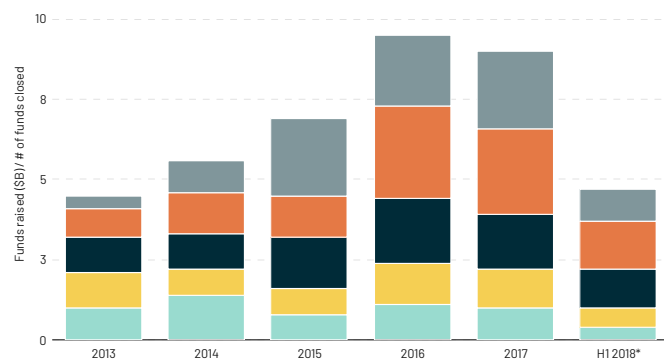
VC funds raised (\$B) and # of VC funds closed per year by fund size (€M)

LEGEND

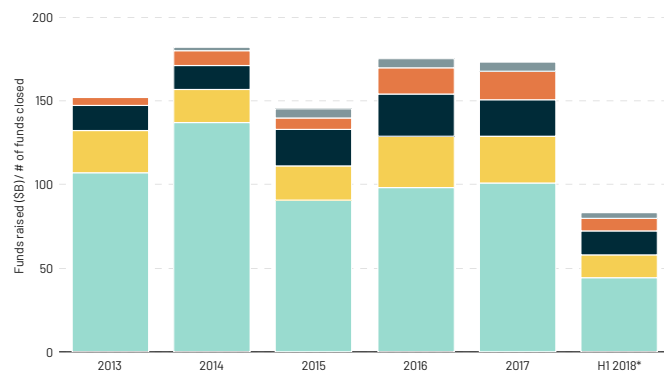
- <€25M
- €25-50M
- €50-100M
- €100-250M
- €250M+

Note:  
Number of unique investors (incl. investment funds, corporate investors & accelerators, but excl. angel investors) that have participated in at least 1 investment round per year. 2018 annualised based on data to September 2018.

DATASET: FUNDS RAISED

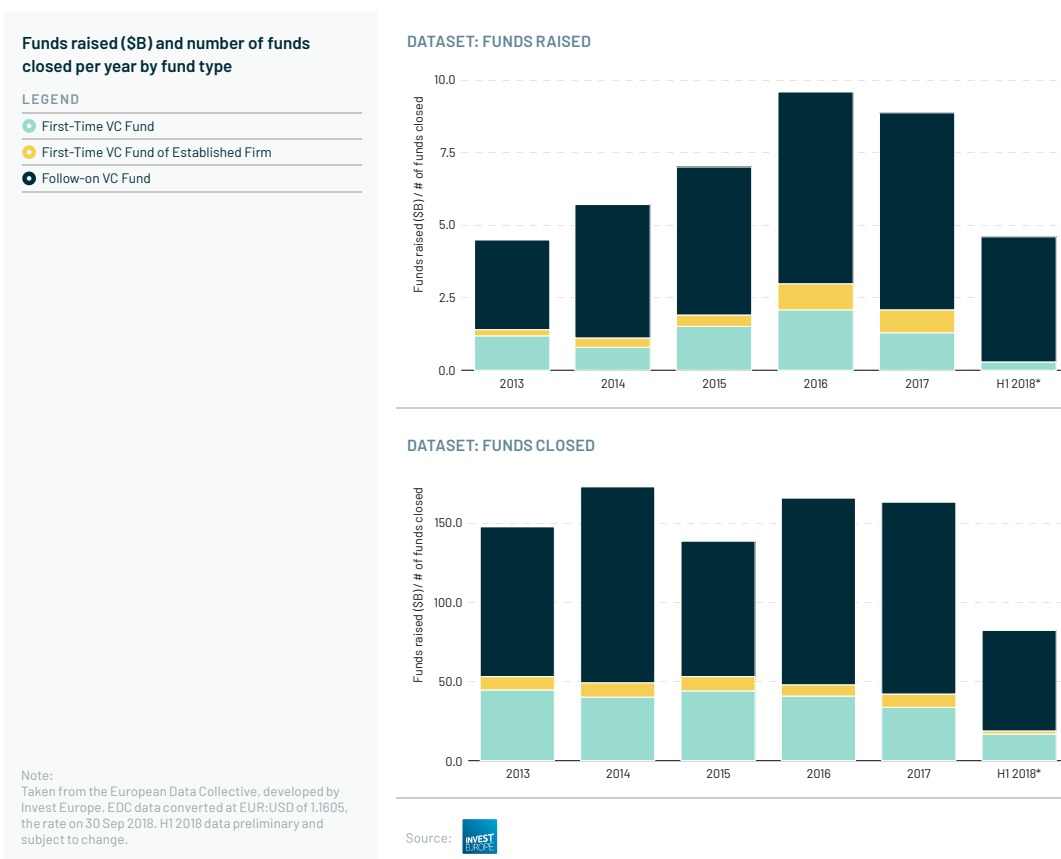


DATASET: FUNDS CLOSED



Source: 

- First-time VC funds have raised \$10 billion across more than 250 funds since 2013, but follow-on funds, unsurprisingly, account for the overwhelming majority (>75%) of total funds raised by VCs in Europe. The data for the first half of 2018 shows a decline in total funds raised by First-Time VC funds compared to the comparative totals for 2017 and 2016.



- The European investor base continues to be bolstered by the launch of new first-time funds, often founded by investors with strong existing track records, such as Stride.VC and Five Seasons Ventures.

**Selected first-time fund launches in Europe since Q4 2017**

	Fund size (\$M)	Country	Announced/Launched
Corviglia Capital Fund	250	Luxembourg	4Q 2018
Trust Esport	11	France	4Q 2018
Norselab	10	Norway	4Q 2018
Imec.xpand	131	Belgium	3Q 2018
Raise Ventures	67	France	3Q 2018
Slingshot Ventures	64	Netherlands	3Q 2018
Indaco Venture Partners	146	Italy	2Q 2018
Stride.VC	64	UK	2Q 2018
Ring Capital	170	France	1Q 2018
Maki.vc	78	Helsinki	1Q 2018
Five Seasons Ventures	67	France	1Q 2018
Luminar Ventures	56	Sweden	1Q 2018
Brighteye Ventures	56	France	4Q 2017
Market One Capital	40	Poland	4Q 2017

Source: **dealroom.CO**

- The rise of a new generation of funds is positive for founders, but is also delivering returns to investors. The European Investment Fund's data shows that emerging managers, defined as managers from Fund I through Fund III, account for a significant proportion of the best-performing funds in their portfolio.

Distribution of top-performing EIF-backed VC fund managers split by emerging versus established funds

LEGEND

IRR, Emerging

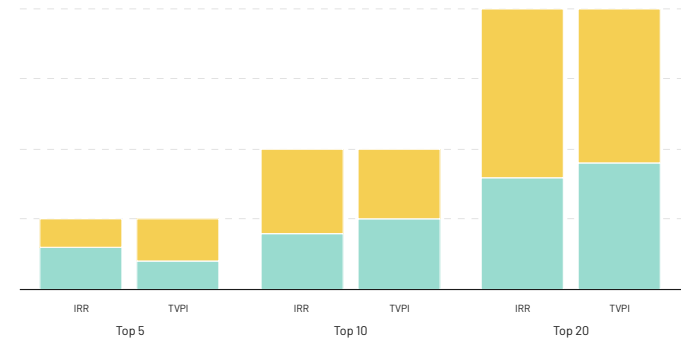
TVPI, Emerging

IRR, Established

TVPI, Established

Note:

Data relates to EIF-backed European ICT funds only. Emerging funds are defined as any fund between Fund I and III. Data as of 31 March 2018.



Source: EIF

- The level of VC funds raised on a per capita basis per country varies widely across Europe and serves to highlight those places that are tracking beneath the European average. VCs in Spain and Italy, most notably, have raised significantly less in total funds since 2013 compared to the European average.

VC funds raised per capita by country of GP by year

LEGEND

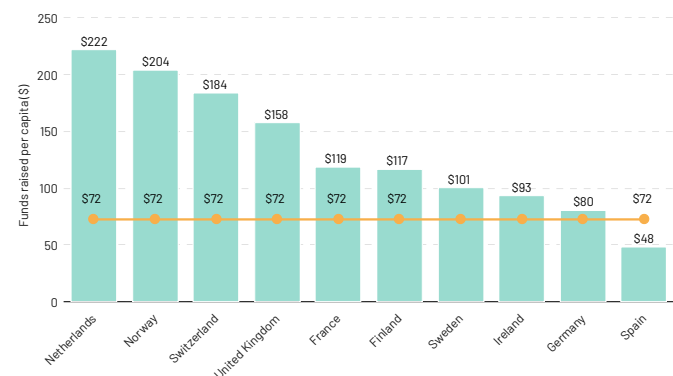
Funds raised per capita (2013-1H 2018)

European average

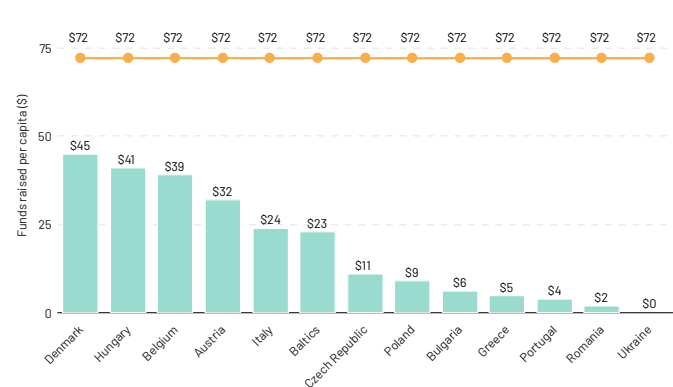
Note:

Taken from the European Data Collective, developed by Invest Europe. EDC data converted at EUR:USD of 1.1605, the rate on 30 Sep 2018. Table excludes Luxembourg, which has raised \$1,074 per capita since 2013. H12018 data preliminary and subject to change.

DATASET: TOP 10

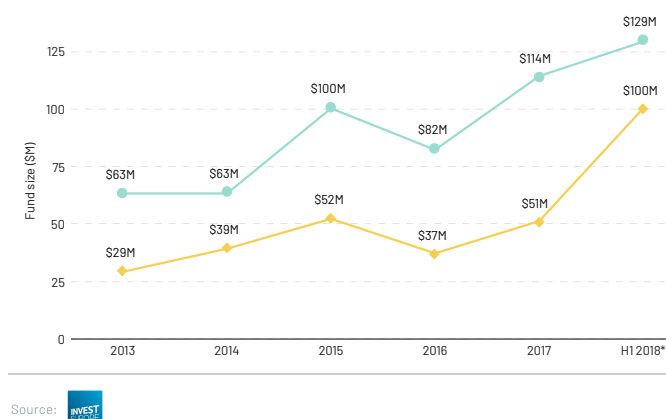
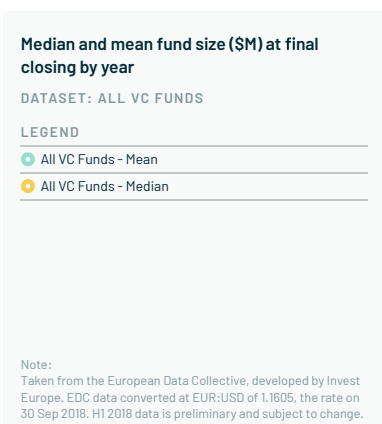


DATASET: 11-20

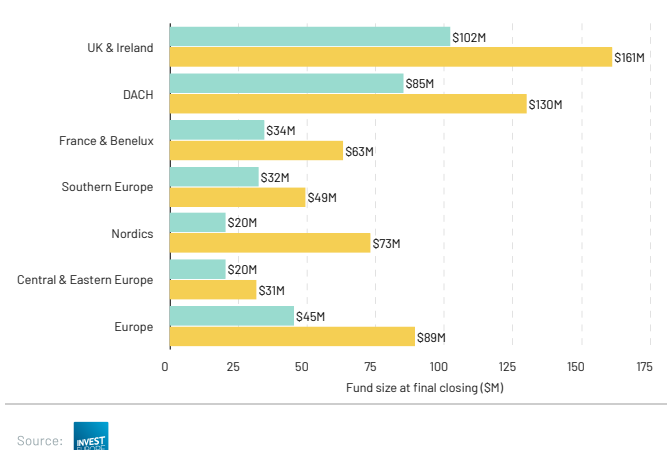
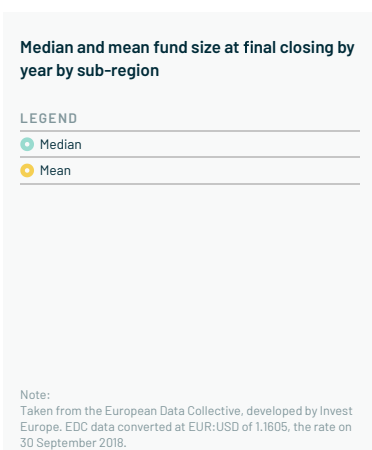


Source: INVEST EUROPE

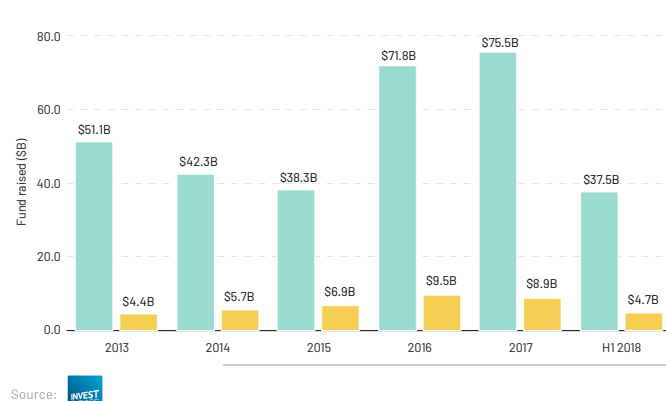
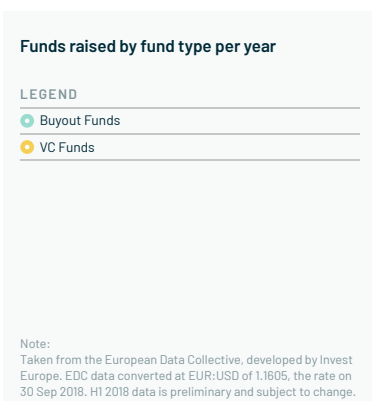
- As the European VC ecosystem has matured, there has been a clear trend of increasing fund sizes to better capitalise European fund managers and enable them to write larger initial cheques, to follow on more meaningfully and also to build more diversified portfolios. This trend continued in 2018 and has seen the median VC fund size increase to \$100 million, doubling from \$51 million in 2017 and up more than 3x from \$29 million in 2013.



- The small size of European VC funds has generally been viewed as a hurdle for the European ecosystem due to the perceived inability of European VCs to support companies by writing meaningful growth cheques. This challenge of sub-scale funds has started to change in the region's largest countries, but it's clear fund sizes remain small in many sub-regions across Europe



- The scale of European VC fundraising is put into perspective when compared against the volume of capital that flows to the region's Buyout funds. Even taking into account the record levels of funds raised by European VCs since 2016, those sums are dwarfed by the amounts committed to European Buyout funds.





*Venture capital fund managers now span the European continent.*



*"Venture capital fund managers now span the European continent. This means investors can access best-in-class funds from the Nordics to Central and Eastern Europe, and back dynamic businesses which are becoming the next wave of European and world leaders."*

**Nenad Marovac**  
Invest Europe



*Steady growth in fundraising will be more sustainable for investors and fund managers alike.*



*"Invest Europe has worked long and hard to tackle the issue of scale in European venture capital. The pan-European fund of funds programme, seeded with €410 million of EU money, will give larger investors a new way into VC. But we should not expect the response to be immediate – steady growth in fundraising will be more sustainable for investors and fund managers alike."*

**Michael Collins**  
Invest Europe





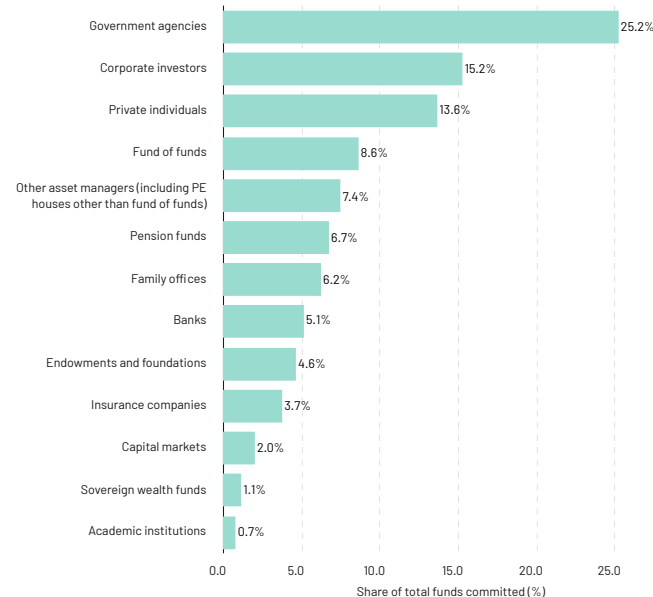
- Beyond government agencies, corporate investors and private individuals/family offices are the largest investors in European VC funds. Pension funds, meanwhile, have only invested \$1.7B into European VCs in the five years since 2013.

Share of funds committed to VC funds by LP type (2013–2017)

LEGEND

• % of total funds raised

Note:  
Taken from the European Data Collective, developed by Invest Europe. EDC data converted at EUR:USD of 1.1605, the rate on 30 September 2018.



Source: INVEST EUROPE

- Private individuals & family offices have contributed \$5B to European VC since 2013.

Top 3 LP types in European VC by % of total funds committed (2013–2017)

LEGEND

• VC funds (\$B)

Note:  
Taken from the European Data Collective, developed by Invest Europe. EDC data converted at EUR:USD of 1.1605, the rate on 30 September 2018.



Source: INVEST EUROPE



Private investors, and especially multi-generational families with millennial family members, are increasingly looking to make impactful investments in tomorrow's new enterprises and in ideas that could re-shape the future.



"We are seeing an increased appetite for investment in European technology companies coming from HNW families and family offices. Private investors, and especially multi-generational families with millennial family members, are increasingly looking to make impactful investments in tomorrow's new enterprises and in ideas that could re-shape the future. The potential for very high financial returns isn't always the major criteria driving allocations. The attractiveness of taking part in the fascinating world of today's tech entrepreneurs and contributing to resolve global challenges plays a crucial role in investment decisions."

**Pierre Stadler**  
Pictet Alternative Advisors

## Diversifying the Institutional Investor Base

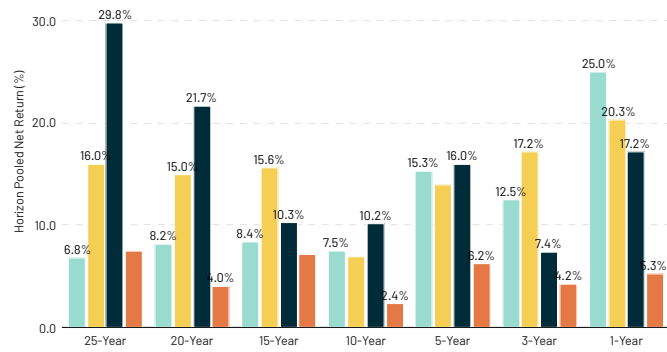
- European VC has been transformed in the past decade and is, as a result, not only now performing well, but is also highly competitive on a forward-looking comparison against both European Private Equity and US VC

Horizon Pooled Return (Net) by Fund Index, June 2018

LEGEND

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

Note:  
As of June 30, 2018.



Source: C A CAMBRIDGE ASSOCIATES



Venture capital fund managers now span the European continent.



"Pension funds now more interested in European venture because pension funds look for good returns, and European venture has shown an uplift in returns over last years. However, there are some things holding others back from allocating to European VC. Those include the fact that VC investments tend to have long and deep J-curves, which requires long-term capital that can handle illiquidity. Furthermore, a secondary market in European VC is under development but is still immature."

**Christina Brinck**  
Sixth Swedish National Pension Fund

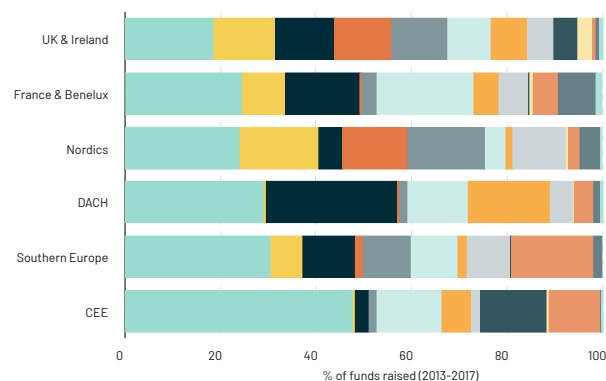
- The European Investment Fund is, to nobody's surprise, the single most frequent supporter of European venture capital funds, but there is a growing list of LPs that are consistently backing European fund managers.

Top 15 most active LPs in tech-focused VC funds in Europe

Source: preqin

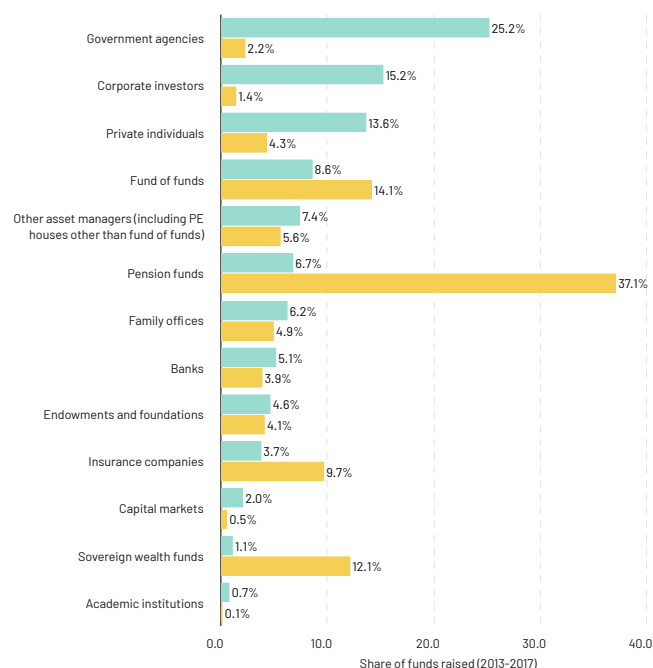
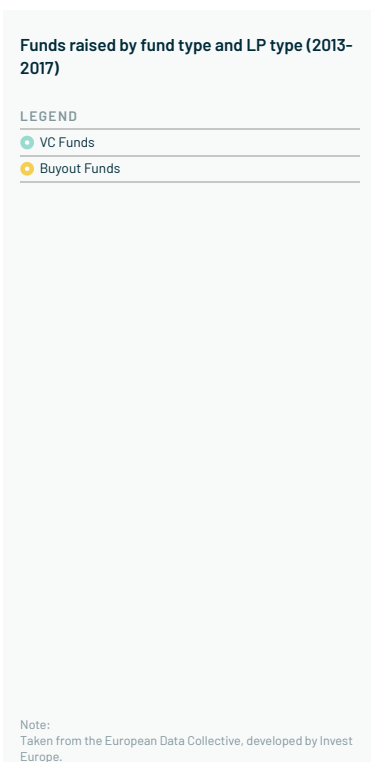
	Investor name	# of known fund commitments
1	European Investment Fund	179
2	Finnish Industry Investment	28
3	CDC Entreprises	26
4	British Business Bank	20
5	AP-Fonden 6	18
6	Access Capital Partners	16
7	LGT Capital Partners	15
8	CDC Group	12
9	Pantheon	12
10	European Regional Development Fund	11
11	Bpifrance	10
12	Enterprise Ireland	10
13	European Bank for Reconstruction and Development	10
14	Industry Pension Insurance	10
15	ARKimedes Management	9

- There are very interesting differences between the LP bases supporting European VC GPs in different sub-regions. Typically, the more mature the VC ecosystem in a sub-region, the more the LP base diversifies towards private, institutional capital and away from dependency on government agencies. There are also important differences in the level of pension fund commitments across sub-regions. On this front, the Nordics lead the way with pension funds accounting for 16% of total VC funds raised since 2013, more than 7x the European average.



Source: INVEST EUROPE

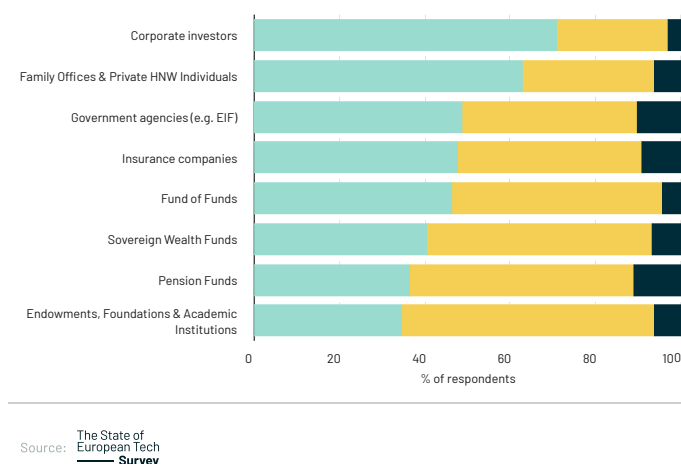
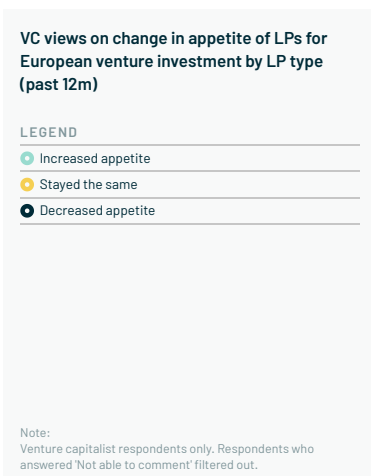
- The composition of LP types that invest in European VC funds is very different to those that represent the largest sources of capital to European Buyout funds. Most notably, where European VCs are heavily dependent on government agencies, corporate investors and family offices, European Buyout funds are backed primarily by allocations from pension funds and sovereign wealth funds.



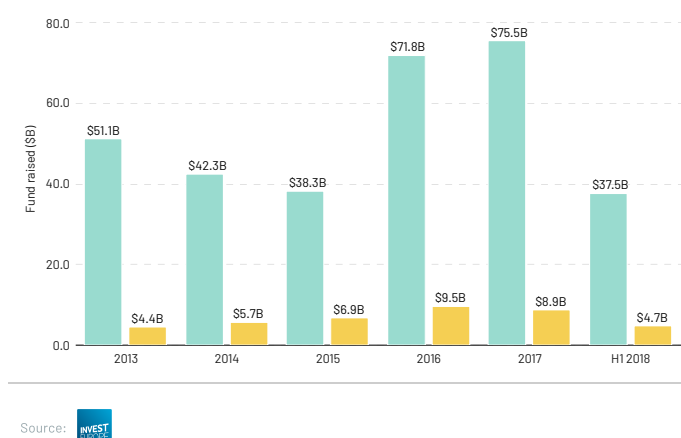
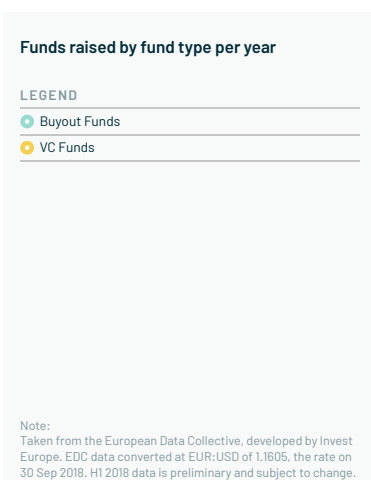
Source: INVEST EUROPE



- A material share of Europe's VCs have experienced an increase in appetite amongst LPs for investing in European venture. Corporate LPs, family offices and private individuals are leading the way, while pension funds and endowments, foundations and academic institutions appear to lag



- Of course, one reason for the difference in LP commitments is as simple as the scale of the different asset classes. European Buyout funds typically raise 7-8x as much per year as European VC funds with much larger average fund sizes. As such, LP types that have minimum allocation requirements can commit without the concern of being too concentrated as an anchor source of funds for an individual fund manager.



We expect to be more active in Europe through investments in venture capital funds, secondaries and co-investments.



"At Top Tier we've been investing in European venture capital funds since our inception, but most were transatlantic. Currently, we see a real opportunity with Europe-focused funds as returns improve, valuations remain reasonable and the ecosystem develops. The venture business is global, and we see a proliferation of highly qualified and experienced European entrepreneurs and fund managers investing behind innovative technology and life science trends to build global businesses - just like what we see in the US. As a result, we expect to be more active in Europe through investments in venture capital funds, secondaries and co-investments."

**Lisa Edgar**  
Top Tier Capital Partners

- Pension funds have committed 45x more capital to European Buyout funds than VC funds, equivalent to around \$75B. In fact, European VCs account for just 2% of the total capital committed to European Buyout/VC funds by pension funds since 2013.

#### Funds committed to VC and Buyout Funds by LP type (2013–2017)

	VC Funds (\$B)	Buyout Funds (\$B)	VC as % of Total Commitments to European VC and Buyout Funds	Multiple (Buyout/VC)
Sovereign wealth funds	0.3	24.5	1%	90.1
Pension funds	1.7	75.6	2%	45.2
Insurance companies	0.9	19.1	5%	20.7
Fund of funds	2.2	28.6	7%	13.3
Endowments and foundations	1.1	8.4	12%	7.4
Family offices	1.6	9.9	14%	6.4
Banks	1.3	7.8	14%	6.2
Other asset managers	1.8	11.4	14%	6.2
Private individuals	3.4	8.3	29%	2.5
Capital markets	0.5	1.1	29%	2.4
Academic institutions	0.2	0.2	42%	1.4
Corporate investors	3.8	2.8	58%	0.7
Government agencies	6.3	4.6	58%	0.7
Total of the LP types	24.9	202.3	11%	8.1

Note:  
Other asset managers include PE houses other than fund of funds. Data taken from the European Data Collective, developed by Invest Europe. EDC data converted at EUR:USD of 1.1605, the rate on 30 September 2018.

Source: 

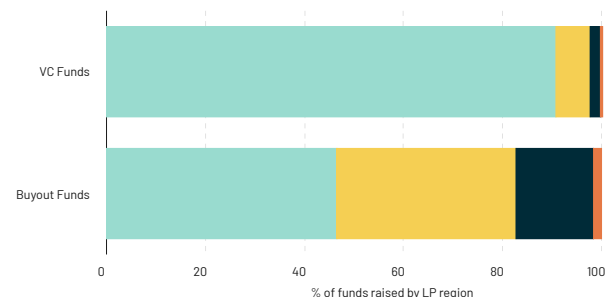
- European Buyout funds raise from a diverse LP geographic footprint, but European VCs are overwhelmingly backed from Europe.

#### Funds raised by fund type and LP region (2013–2017)

##### LEGEND

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

Note:  
Taken from the European Data Collective, developed by Invest Europe. Total may not sum to 100% due to rounding.



Source: 



LPs can now see that huge success can be found in Europe but the challenge of staying locked up in a 5+5 year fund cycle remains unattractive. We have to remember investors don't just compare VCs to other VCs, they have the option of investing into any asset class.



**Simon Cook**  
Draper Esprit

"We believe that investors need to see different structures rather than just the constrictive 5+5 year limited partnership. This is driven by many issues such as liquidity, access, flexibility in the market as well as the need for longer term capital to build bigger companies in Europe. LPs can now see that huge success can be found in Europe but the challenge of staying locked up in a 5+5 year fund cycle remains unattractive. We have to remember investors don't just compare VCs to other VCs, they have the option of investing into any asset class. More liquidity is also attractive to entrepreneurs, who want to be able to reward employees for hard work in the face of huge competition for talent."



# Great European Companies

## Success of a global stage

2018 has been a truly remarkable and record-breaking year for outsized outcomes in the European tech industry. Another 17 European companies hit billion-dollar valuations, and three of the ten biggest venture-backed public listings came from Europe, including that of blockbuster Spotify. Doubts about the region's tech prowess have definitively been put to rest.

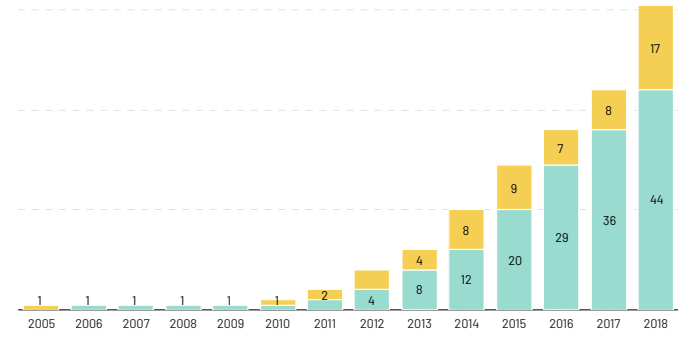
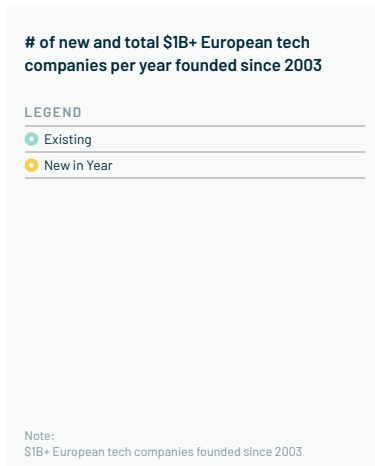
### ARTICLES

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- 09.1 Billion-Dollar Companies
- 09.2 Blockbuster European Tech IPOs
- 09.3 Spotify: Celebrating a European Milestone
- 09.4 The European Exit Environment

## Billion-Dollar Companies

- 2018 set another record for the number of new European tech companies to surpass a \$1 billion+ milestone for the first time.



Source: **atomico**

- Europe saw a record number of tech companies hit a \$1 billion+ milestone for the first time in 2018

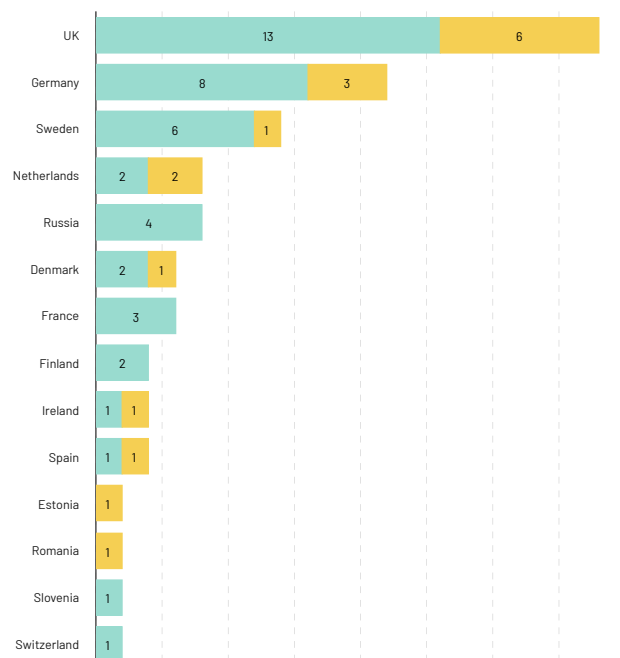
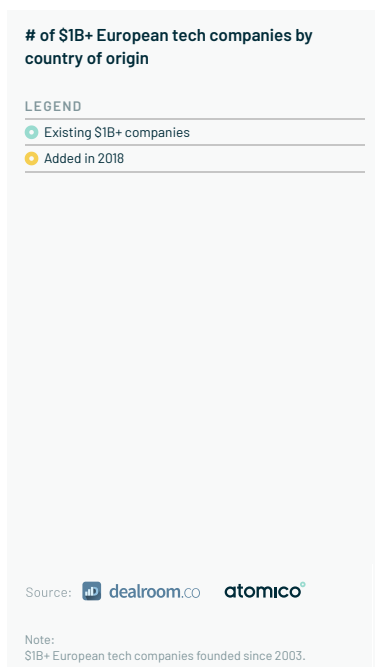
### EUROPEAN \$B+ TECH COMPANIES

# 17

number of European tech companies that first surpassed a \$1 billion+ milestone in 2018, an all-time record for the region

Source: **dealroom.CO**

- \$1 billion+ European tech companies have now emerged from 14 unique countries in the region, led by the UK, Germany and Sweden





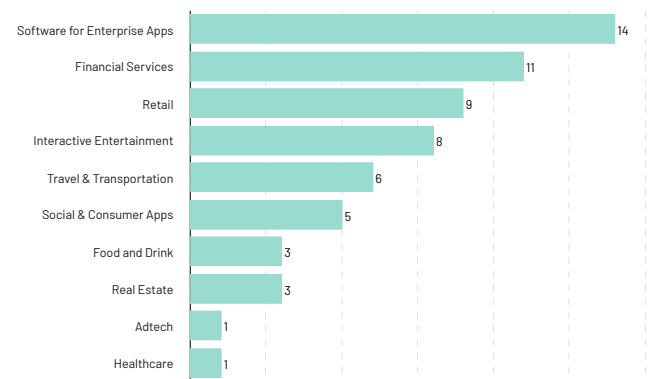
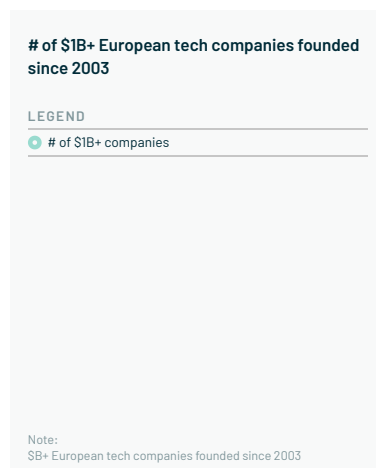
*The gripe used to be that Europe had yet to prove it could be home to multiple \$1 billion+ businesses. We have decisively put that question to rest.*



**Sonali de Rycker**  
Accel

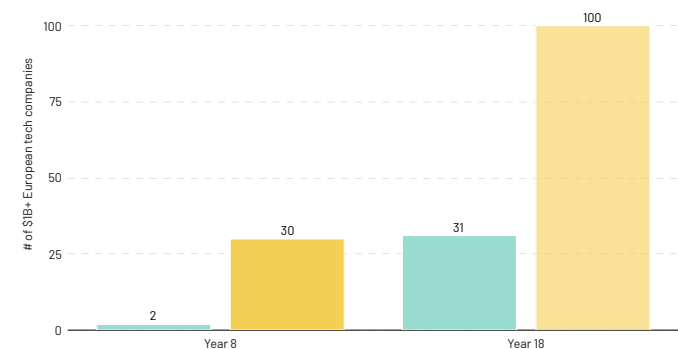
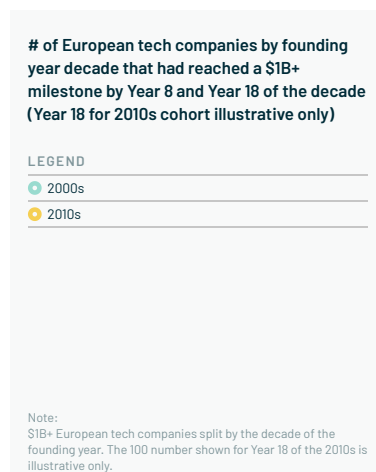
*The gripe used to be that Europe had yet to prove it could be home to multiple \$1 billion+ businesses. We have decisively put that question to rest. Momentum has accelerated, and now we are able to regularly build businesses that surpass the \$5 billion+ threshold and have produced two in the \$15 billion+ range. However, what we are missing "still is an iconic and enduring category leading business, based in Europe that has scaled globally and is valued over \$50 billion. I do believe this too is just a matter of time."*

### European founders have built huge businesses in a wide range of categories



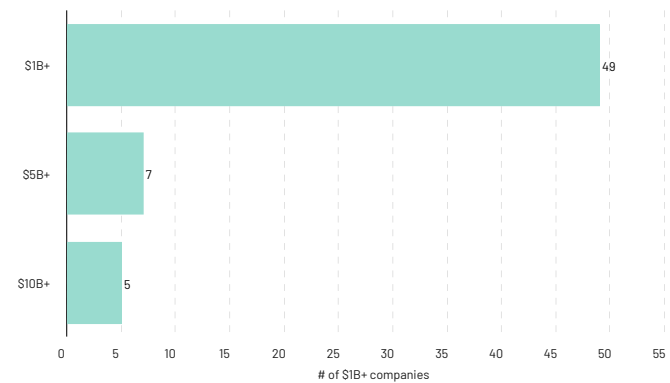
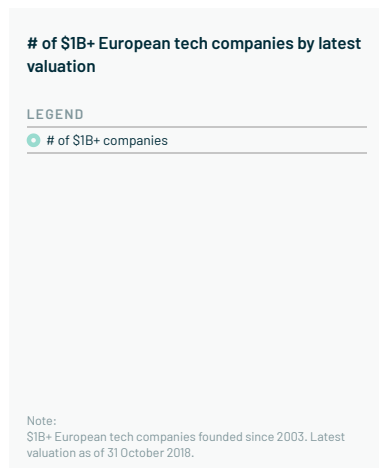
Source: **atomico**

### The 2010s have already produced 15x more \$1B+ companies by Year 8 (2018) of the decade compared to the equivalent point (2008) of the 2000s. The cohort from that earlier decade grew from 2 in 2008 to 31 today. Based on a similar expansion of the cohort from the 2010s, it's not far from unrealistic to imagine 30 companies today from this decade growing to more than 100.



Source: **atomico**

Europe is now consistently producing companies exceeding \$5B+ in value



Source: **atomico**

Europe is now producing \$1B+ tech companies at a rate that is greater than an order of magnitude higher than the last decade

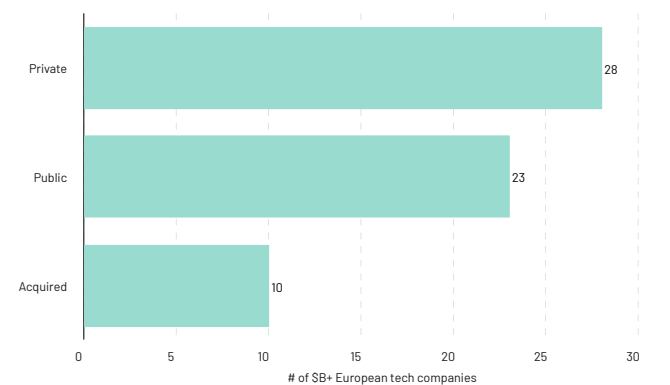
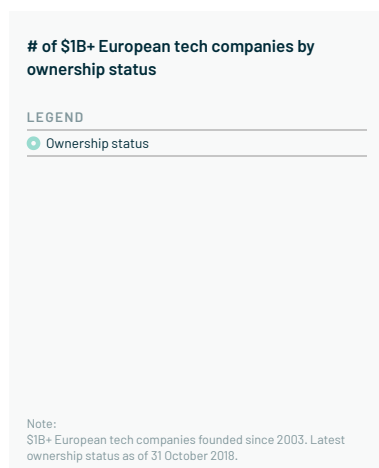
EUROPEAN \$B+ TECH COMPANIES

15x

increase in the number of \$1B+ companies founded per decade that hit a \$1B+ by Year 8 of this decade (2010s) compared to Year 8 of the last decade (2000s)

Source: **dealroom.co**

Europe's \$1B+ tech companies are finding shareholder liquidity via IPOs and M&A and helping to release capital & experienced talent back into the ecosystem



Source: **atomico**

## Blockbuster European Tech IPOs

- 2018 has been a truly remarkable and a record-breaking year for outsized outcomes in the European tech industry, capped by Spotify's giant \$25B direct listing.

Top 10 largest VC-backed IPOs by market cap at exit in 2018

	Country	City	Amount raised (\$M)	Value at IPO (\$M)
Spotify	Sweden	Stockholm	9,200	26,500
Adyen	Netherlands	Amsterdam	1,045	7,810
Farfetch	United Kingdom	London	885	5,800
Avast Software	Czech Republic	Prague	195	3,168
Elastic	Netherlands	Amsterdam	252	2,500
Funding Circle	United Kingdom	London	396	1,980
Home24	Germany	Berlin	165	660
Westwing	Germany	Munich	145	605
Navya	France	Villeurbanne	38	190
Marley Spoon	Germany	Berlin	51	145

Source:  dealroom.co

- Europe has delivered more large tech IPOs in 2018 than the US

### EUROPEAN TECH IPOs

4x \$5B

Number of European tech IPOs with an enterprise value of more than \$5B in 2018, versus just one from the US

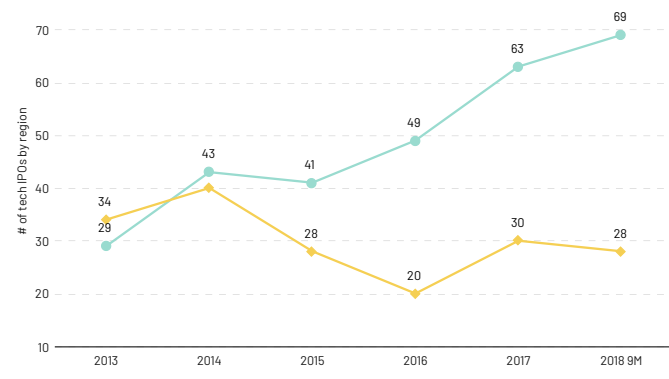
Source:  dealroom.co

- As we have demonstrated in previous iterations of the State of European Tech, there are more tech IPOs per year from Europe than the US. There are many reasons that underpin this long-standing trend, but it is best summarised by the fact that there are completely different characteristics that shape the environment around access to the public markets for tech companies.

# of tech IPOs by region

#### LEGEND

- Europe
- US



Source:  London Stock Exchange



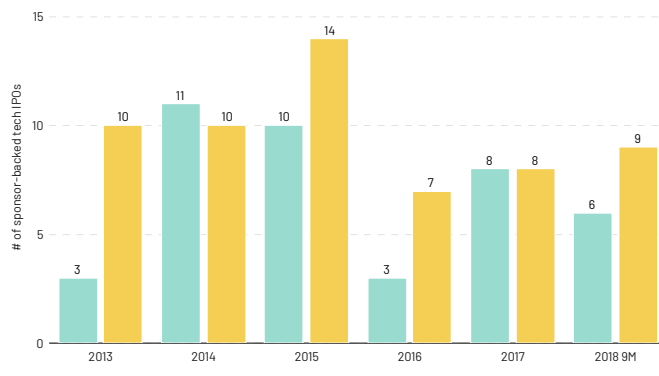
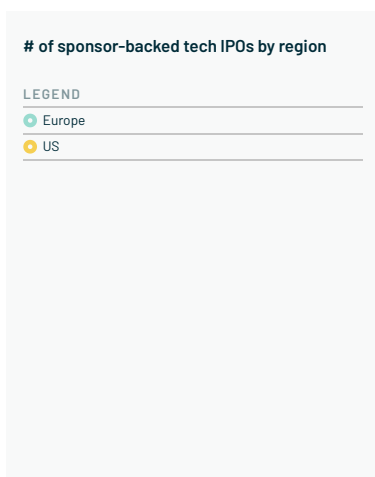
European tech has arrived, and whether they're valued in tens of millions or tens of billions, they bust the myths about European tech with each new listing.



"Since 2014, European tech companies have IPO'd at rates far exceeding that of US tech companies – European markets, like London's AIM, are structured to support tech listings of all sizes, and Europe's public market investors back them. But as Europe has stretched its lead with smaller caps, 2018 also heralded the arrival of a series of long awaited, high profile listings, all well in excess of \$1bn in market cap, and a surge of Fintech companies on public markets. European tech has arrived, and whether they're valued in tens of millions or tens of billions, they bust the myths about European tech with each new listing."

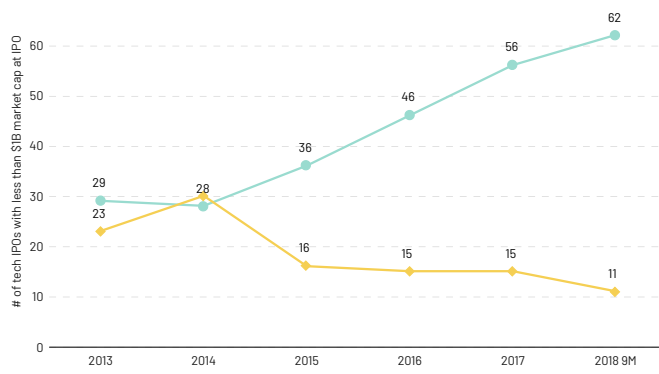
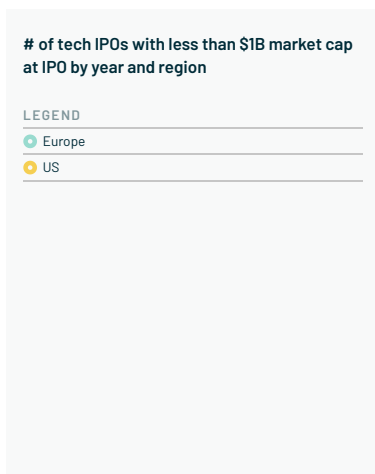
**James Clark**  
London Stock Exchange

- In the US, for example, most tech IPOs tend to be sponsor-backed. This means there are financial investors, whether VCs or PE funds, that play a 'sponsoring' role in bringing these companies to the public market. While the numbers of sponsor-backed tech IPOs per region are similar in Europe and the US, because Europe sees far more IPO, the percentage share of European tech IPOs that are 'sponsored' are typically lower, which is a reflection of a greater diversity in types of companies that have access to public markets.



Source: London Stock Exchange

- European tech IPOs far exceed those in the US by volume due to the fact that European capital markets are supportive of enabling companies of all sizes by enterprise value, whether \$1B+ or sub-\$100M, to come to market.



Source: London Stock Exchange



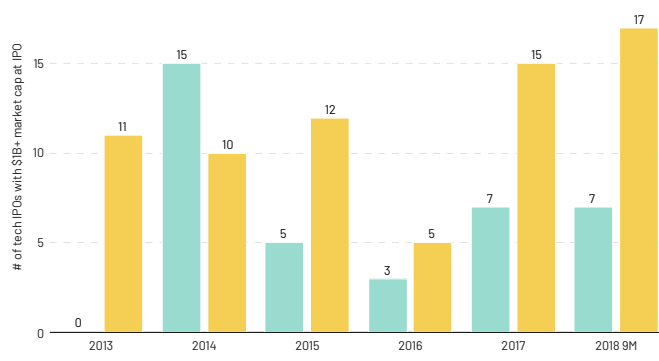
- Smaller cap European tech companies make up the majority of European tech companies, a reflection of the fact that founders of European tech companies take advantage of the fact that there are many different paths to raising the capital required to support and grow their companies.

# of tech IPOs with \$1B+ market cap at IPO by year and region

LEGEND

● Europe

● US



Source: London Stock Exchange



The advantage of European startups is that they have an aptitude for complexity in their DNA.



"The advantage of European startups is that they have an aptitude for complexity in their DNA. This comes from looking at various markets, making sure their intellectual property is protected internationally, and approaching customers with a multicultural focus. The nimbleness of European startups - which comes from not having as much capital chasing them as U.S. startups - has also taught them well what the essentials of their business are and how to be customer facing."

**Natalie Massenet**  
Imaginary Ventures

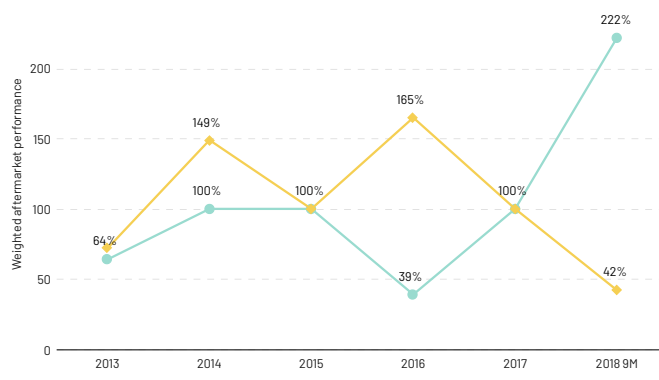
- Europe's notably strong performance in terms of delivering its largest ever crop of large-cap venture-backed European tech IPOs has also been followed with strong weighted aftermarket performance.

Weighted aftermarket performance of Tech IPOs by vintage year (%)

LEGEND

● Europe

● US



Sour Source: London Stock Exchange

- Questions are often raised about the sophistication of institutional investors in the European capital markets and their ability and willingness to invest into tech. The data shows very clearly, however, that there is a strong pool of European investors that have built deep and sophisticated understanding of tech by having built large portfolios of holdings in global tech companies.

Top 10 European Investors in global tech companies

	Parent	# of Global Tech companies they invest in
Graubundner Kantonalbank (Private Banking)	Graubundner Kantonalbank	1748
Norges Bank Investment Management	Government of Norway	1746
DWS Investment GmbH	Deutsche Bank AG	1657
Deutsche Asset Management (UK) Ltd. (Investment Management)	Deutsche Bank AG	1394
Legal & General Investment Management Ltd.	Legal & General Group Plc	1311
UBS Asset Management (UK) Ltd.	UBS Group AG	1264
Credit Suisse AG	Credit Suisse Group AG	1259
Zürcher Kantonalbank (Investment Management)	State of Zurich	1248
UBS AG (Investment Management)	UBS Group AG	1199
Barclays Bank Plc (Private Banking)	Barclays Plc	1038

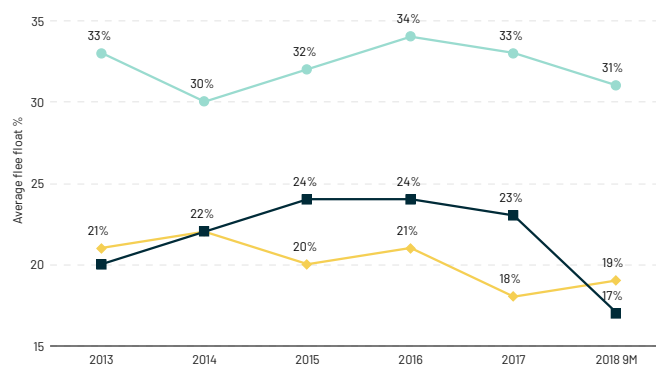
Source:  London Stock Exchange

- Ownership in European public tech companies is more widely distributed than in their counterparts in the US and China

Average free float for tech issuance by year and region

LEGEND

- Europe
- USA
- China



Source:  London Stock Exchange



European founders need to adopt a moonshot mentality if they are to build the next Google or Amazon. There is no playing it safe.

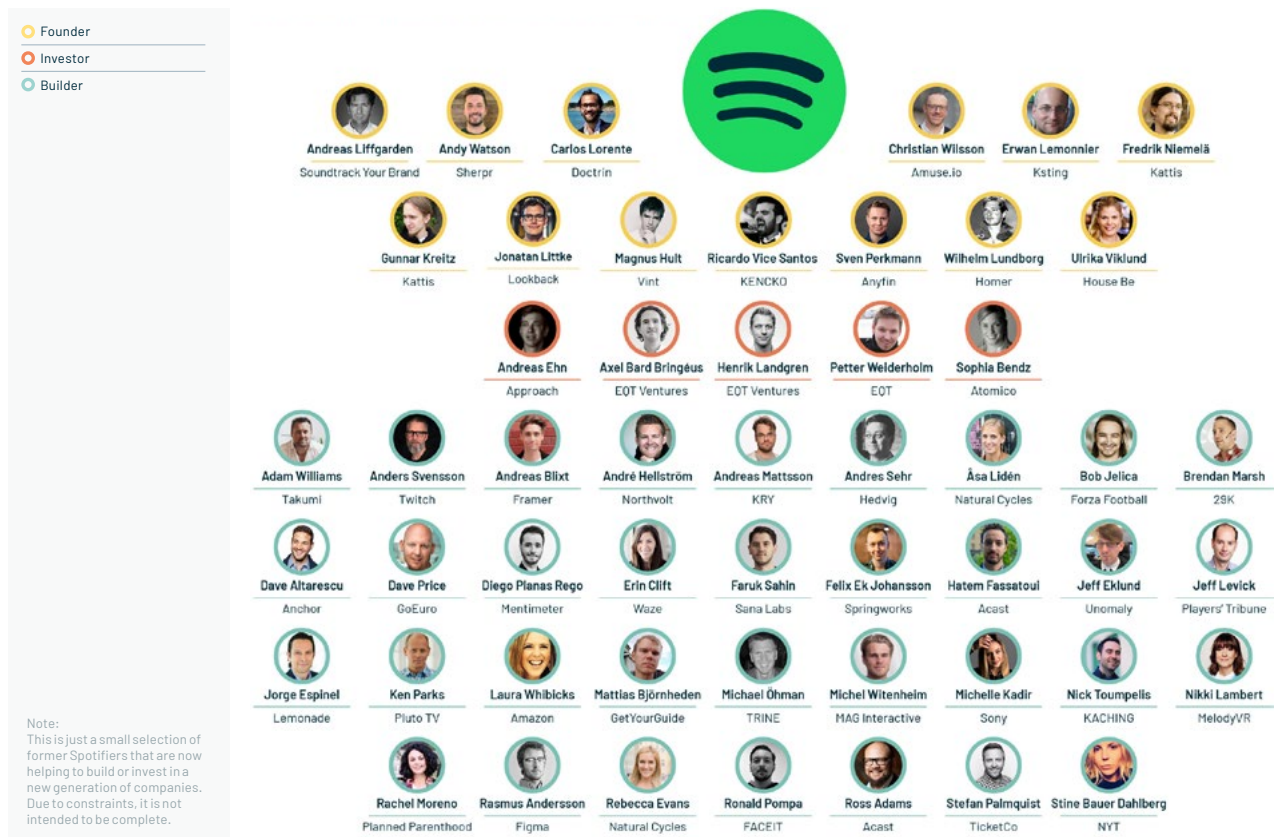


Jacob de Geer  
iZettle

European founders need to adopt a moonshot mentality if they are to build the next Google or Amazon. There is no playing it safe. As a founder you need to show investors that you're passionate, that you have the drive to make it happen, and that you understand the market from a global perspective. Don't obsess about building the "perfect product" – start shipping, and figure things out as you go. Lastly, the best founders will have a strong sense of purpose and a vision that guides their company through the difficult moments – there will be many!"

# Spotify: Celebrating a European Milestone

- Spotifyers are founding, building and investing in a new generation of European tech companies



66

Spotify is truly a game changer for the entrepreneurial ecosystem across all of Europe. With a relentless focus on doing things better and differently, they successfully outcompeted even giants such as Apple, Google and Amazon.



**Pär-Jörgen Pärson**  
Northzone

"Spotify is truly a game changer for the entrepreneurial ecosystem across all of Europe. With a relentless focus on doing things better and differently, they successfully outcompeted even giants such as Apple, Google and Amazon. The direct listing was another example of Spotify's famous out of the box thinking. Having concluded that the traditional and outdated way to IPO wasn't optimal neither for the company nor its shareholders and prospective shareholders, they embarked on a course few other companies would have dared - and succeeded.

The founders Daniel Ek and Martin Lorentzon had decided already at the get go on April 1, 2006 to go big or go home. They were successful entrepreneurs already then and managed to attract the best talent around when they set out to disrupt a notoriously difficult industry that had already claimed a number of startup casualties. They respected the rights-holders and managed to convince an industry to change its business model over a period of five years.

Today, the music business is as healthy as ever, and Spotify enabled that change.

I am so grateful and humbled to have played a role as first institutional investor and board member over 9 years in a seminal company."

# The European Exit Environment

- 2018 has been a truly remarkable and a record-breaking year for outsized outcomes in the European tech industry, capped by Spotify's giant \$25B direct listing

Top 10 largest VC-backed exits by value at exit in 2018, IPO & M&A

	Exit type	Country	City	Value at IPO / EV in M&A (\$M)
Spotify	IPO	Sweden	Stockholm	26,500
Adyen	IPO	Netherlands	Amsterdam	7,810
Farfetch	IPO	United Kingdom	London	5,800
Avast Software	IPO	Czech Republic	Prague	3,168
Zoopla	M&A	United Kingdom	London	2,904
Elastic	IPO	Netherlands	Amsterdam	2,500
iZettle	M&A	Sweden	Stockholm	2,200
Funding Circle	IPO	United Kingdom	London	1,980
Mendix	M&A	Netherlands	Amsterdam	730
Trendyol	M&A	Turkey	Istanbul	728

Source:  dealroom.CO

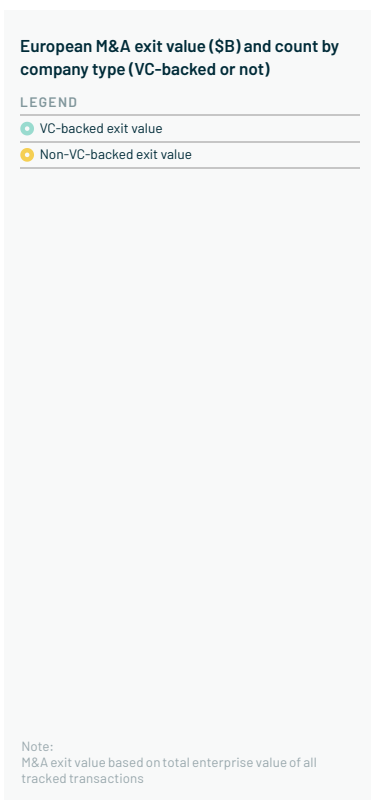
Top 10 largest VC-backed M&A exits by value at exit in 2018

	Country	City	EV (\$M)
Zoopla	United Kingdom	London	2,904
iZettle	Sweden	Stockholm	2,200
Mendix	Netherlands	Amsterdam	730
Trendyol	Turkey	Istanbul	728
CCP Games	Iceland	Reykjavik	425
Shazam	United Kingdom	London	400
NewVoiceMedia	United Kingdom	Basingstoke	350
Relayr	Germany	Berlin	300
Gram Games	Turkey	Istanbul	250
MetaPack	United Kingdom	London	230

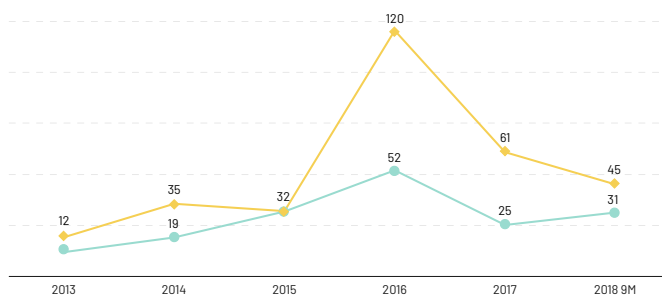
Source:  dealroom.CO



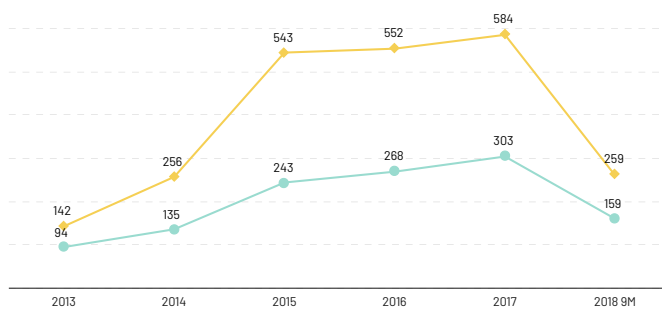
- Building on top of several large European tech IPOs, Europe has also seen significant exit value via M&A in 2018. Multibillion-dollar acquisitions, such as iZettle's \$2B+ sale to PayPal, have helped to drive the total value of M&A of VC-backed European tech companies to \$31B in the first nine months of 2018.



DATASET: EXIT VALUE

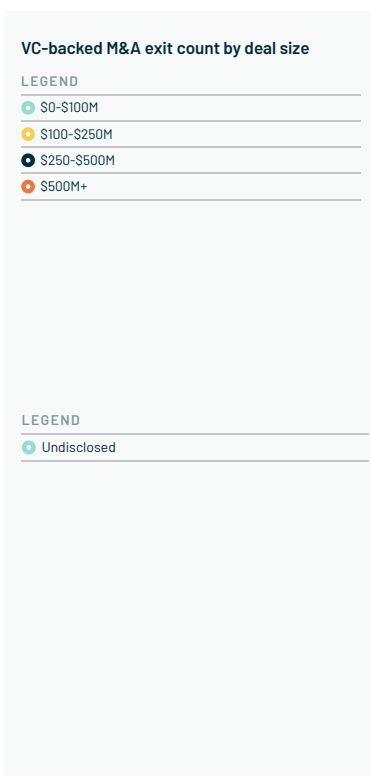


DATASET: EXIT COUNT

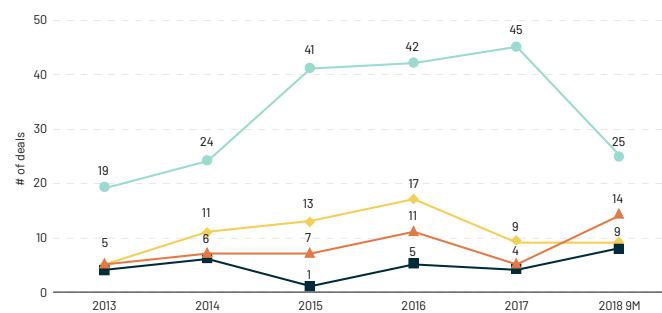


Source: dealroom.co

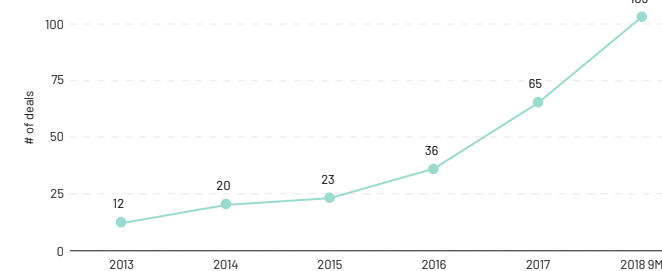
- Strong activity in M&A of VC-backed European tech companies has been underpinned by a record number of acquisitions with an enterprise value of more than \$500 million at exit, as well as record numbers of acquisitions of European VC-backed companies acquired for between \$250 million and \$500 million.



DATASET: DISCLOSED EXIT VALUE



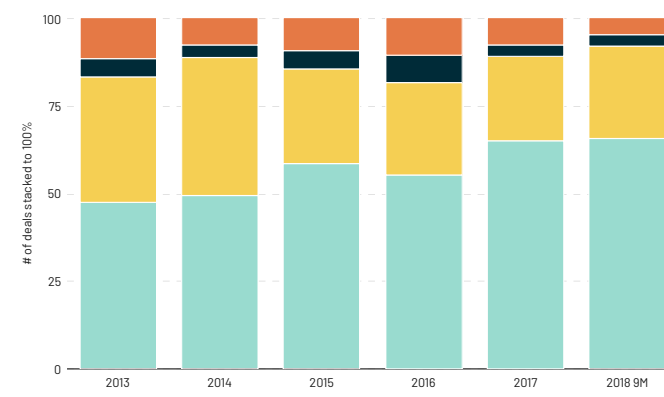
DATASET: UNDISCLOSED EXIT VALUE



Source: dealroom.co



- Contrary to the popular but false narrative that European tech companies exit primarily to US-based buyers, the share of M&A transactions of European tech companies that involved European acquirers exceeded more than 50% of all M&A transactions in 2018, as it has done in each of the past four years.



Source: dealroom.co

- Europe's traditional companies continue to look at M&A as a strategy to accelerate their response to the digitization of their core industries and in several cases took material bets of more than \$500M. The largest single acquisition in 2018 involved Richemont's completion of the 100% acquisition of digital commerce company, Yoox Net-a-Porter, for an implied enterprise value of more than \$5B.

Largest acquisitions of European tech companies by European non-tech companies in 2018, by EV

	Acquiror	Date	EV (\$M)
Yoox Net-a-Porter	Richemont	May 2018	5,500
Mendix	Siemens	Aug 2018	730
Payvision	ING Group	Mar 2018	528
relayr	Munich Re	Sep 2018	300
Tails	Nestlé	Apr 2018	192
Chargemaster	BP Global	Jun 2018	166
FreeAgent	RBS	Mar 2018	75

Source: dealroom.co

# 10

## Challenges

### Priorities for European Tech

Despite the region's blockbuster year, European tech faces challenges. The journey for founders is still convoluted, diversity lags, and institutional capital must be more accessible. Finally, Europe needs to unlock research potential, and tech and policymakers must align more effectively.

#### ARTICLES

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10.1 There's Lots to Overcome

## There's Lots to Overcome

This year's report is another strong indication of the upward trend in European tech. There is much to celebrate, but the report also highlights some obvious challenges we need to address if we are to continue the progress of the past decade.

### Prioritise diversity and inclusion

Europe's diversity and inclusion challenges are stark. Just 4% of VC funds go to female or mixed gender teams in Europe. The level of funding to other underrepresented groups is even lower. Those numbers have not budged

in any meaningful way in recent years. The result: Europe has lost untold talent and value due to these issues. This is not somebody else's problem. It is our problem. Why are we not taking more positive action?

### Mobilise hidden talent pools

There are at least 15 cities across Europe that have more than 50,000 professional developers but have seen less than \$1B in total capital investment since 2013 and less than \$500M in

most cases. By contrast, Stockholm, which has around 80,000 professional developers, has attracted almost \$5B over that period. How can we get all of those cities to punch at that level?

### 10x pension fund commitments to European VC

Pension funds have committed just \$2.4B to European VCs in aggregate since 2013, equating to less than \$500M per year. This equates to just 0.01% of total European pension fund assets under management of around \$4 trillion. All of that despite the fact that

European VC is now competitive with US VC and European private equity. How can we educate and create the right incentives and allocation models to entice more pension funds to support a European VC ecosystem?

### Build density through interconnectivity

Europe's ecosystem is unique in its geographic diversity. In response to this, the region's interconnected hubs are achieving density in a uniquely European way. More than a third of all investments by European VC already

flows across borders and 28% of Europe's founders and employees have also moved across hubs. How can we strengthen this interconnectivity even further?

### Lose the inferiority complex

There is no better proof that European tech companies can compete on the global stage than Spotify. It is hard to think of a company anywhere that has had to fight fiercer competition from the world's largest tech companies and

never deviated from its long-term vision despite untold distractions. And they still ended up as the global category leader and a trusted consumer brand the world over. What can we learn from Daniel and his team?



## Build an investor base to target underrepresented communities

The transformation of the European investor base into a deep and increasingly sophisticated network of interconnected sources of funding has elevated European tech to another level. But the job is not close to being finished. Europe's challenge is to identify and support emerging fund managers and angels that can target the communities that do not

have access to the same capital and advice as those in London, Paris or Berlin. This means a new generation of sophisticated investors in new geographies and explicitly seeking to invest in diverse groups of founders. What can we do to help incentivise and support this next generation of investors?

## Bridge the tech and policy divide to harness tech for good

European tech leaders and policymakers want to work more closely together, but they are still speaking across each other today. If aligned more closely we could create better products and services for consumers

and help strengthen the European tech ecosystem. How can we build a bridge to create a European tech ecosystem that is working in concert with its policymakers to unlock the potential of using tech for good?

## Stop living in the past and drop the clichés

People still talk about Europe like it can't do tech. And for sure, Europe has historically not created as much enterprise value from tech as the US and China. That isn't surprising. The US tech ecosystem has a 30-year headstart on the European ecosystem. China is a closed market with heavy government support which cannot be replicated in a

region of multiple democratic countries and languages. We need to throw away disparaging clichés about European tech. Europe's tech ecosystem is flourishing and rapidly gaining 'market share' on the global stage. If we can't stop talking about the past, how can we focus on the future?

## Compensate talent and bring it to Europe

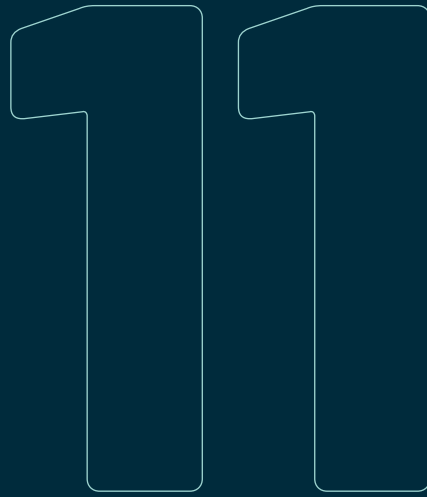
Europe's biggest challenge, arguably, remains a shallow pool of executive level talent with experience scaling tech companies to thousands of employees, millions of users and billions of revenue. The ecosystem is, therefore, reliant on attracting global talent to Europe or to luring home European talent

back from overseas. Europe now offers compelling opportunities to join amazing companies, but needs to align compensation to compete with benchmarks elsewhere. What can Europe do to help incentivise talent more effectively?

## Prioritise diversity and inclusion

This challenge is so great, it should be Europe's first and most urgent priority. If Europe fails to make meaningful progress on this, it will still be unable to reach its full potential in terms of creating value for consumers, business

and stakeholders even if it solves all the other challenges. Some people have started to make a difference. Diversity VC has created a toolkit for founders to address diversity and inclusion. So, what are you doing?



# Mythbusting

## Don't Bring Anecdotes to a Data Fight

#fakenews about European tech? We put those  
myths to rest.

### ARTICLES

---

- 11.1 Myths Aplenty Around European Tech
- 11.2 2018 Mythbusting

# Myths Aplenty Around European Tech

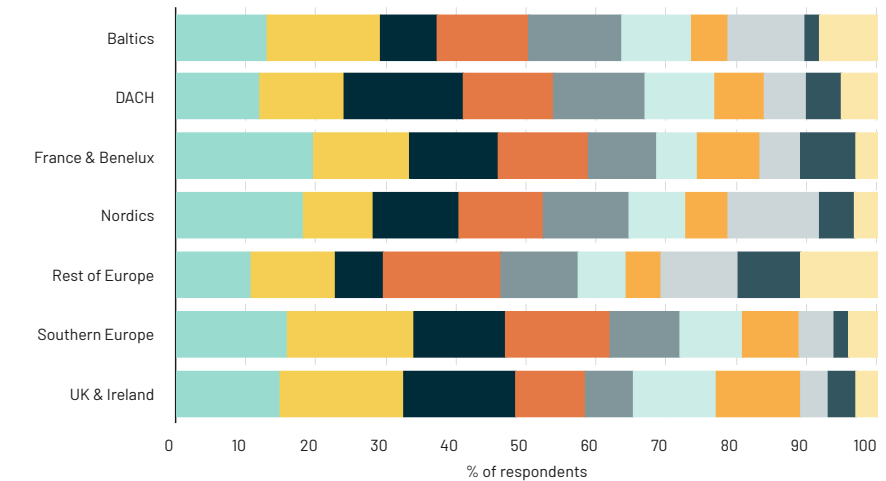
- Those working within the European tech ecosystem regularly encounter a large number of myths about what is happening in the region

## Biggest myth by SOET region

### LEGEND

- Lack of Ecosystem
- Capital Availability
- Global Competitiveness
- Market Fragmentation
- Slow Moving
- Not Innovative
- Talent Availability
- Overly Regulated
- Diversity
- Startup Unfriendly

Note:  
Based on respondents that gave explicit responses only



Source: The State of European Tech Survey

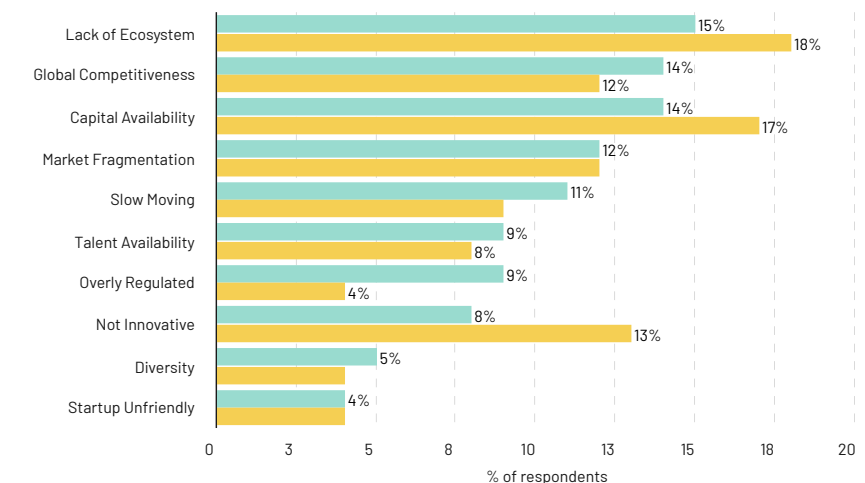
- Founders and investors are aligned that the biggest myths are the lack of an ecosystem, the level of capital availability and its global competitiveness

## What, in your opinion, is the biggest myth you regularly encounter about the state of the European tech ecosystem?

### LEGEND

- Founder or startup/scale-up employee
- Investor

Note:  
Founder and investor respondents only. Based on respondents that gave explicit responses only



Source: The State of European Tech Survey

## 2018 Mythbusting

### Europe is irrelevant as its share of public tech market cap versus the US and China is small

01

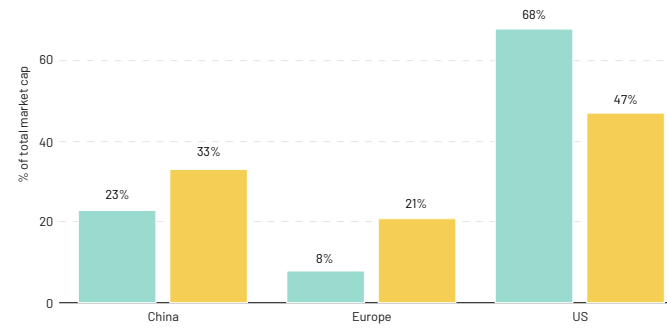
- Busted:** If you choose to look at all the data, then yes, the market cap of public European tech companies make up just 8% compared to the market caps of US and Chinese tech companies. However, given that most the US companies' market cap is taken up by just five companies (Alphabet, Amazon, Apple, Facebook and Microsoft) and most of them are over 20 years old, it is much better to look at the market caps of those public tech companies founded after 2006 if you want to understand the direction of future travel. Once you do that, then Europe begins to punch a lot harder.

Share of total market cap of public Internet & Software companies by region

LEGEND

- All public tech companies
- All public tech companies founded since 2006

Note:  
Share of total public Internet & software market cap by region and cohort. % distribution based on share of total value of US, China and Europe. Total may not sum to 100% due to rounding.



Source: S&P Global Market Intelligence

### All the best European founders want to move to Silicon Valley

02

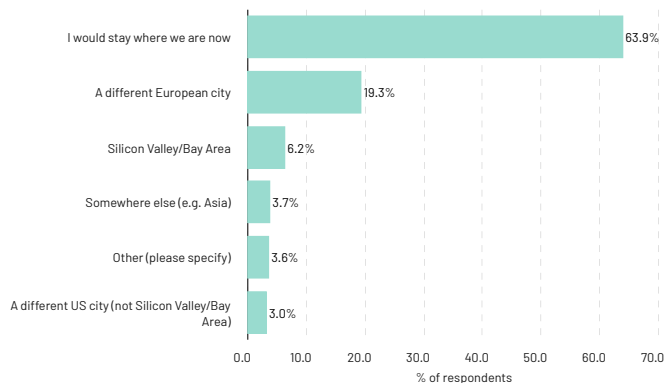
- The overwhelming majority of European founders do not feel the allure of moving to Silicon Valley**

If you were to start over, where would you choose to found and build your company?

LEGEND

- % of founders

Note:  
Founder respondents only



Source: The State of European Tech Survey

## European tech founders don't understand how to use stock options

03

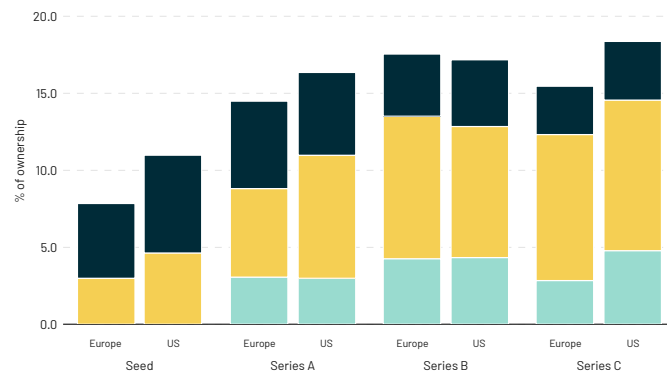
- Busted:** European tech companies have historically lagged behind those from the US in their use of stock options as an effective tool to attract, incentivise and retain talent. However, looking at Advanced-HR's latest employee ownership survey, there are signs that the latest generation of companies from Europe are now properly rewarding their most talented executives and employees. While there is likely sample bias because most founders who participate in the survey are likely to a) understand the issue more and b) be better at remunerating their employees, it is a positive sign. There is still work to do but thanks to leading European VCs, such as Index Ventures and Balderton, more founders are starting to take this issue seriously and the rest will hopefully follow suit. European governments need to pay attention too and ensure the implementation of progressive policies around use of stock options do not lag behind this evolved attitude among European founders. If you support enabling more effective use of stock options to incentivize talent in Europe, we recommend checking out the Not Optional initiative at [www.notoptional.eu](http://www.notoptional.eu).

Employee ownership by funding round stage in 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 executive-level employees, staff-level employees and remaining unissued options. It excludes Founder's Shares and equity allocations displayed as a percentage of fully diluted shares. Equity not related to salary nor incentives



Source: advanced<sup>hr</sup>

## GDPR has been a disaster for all concerned

04

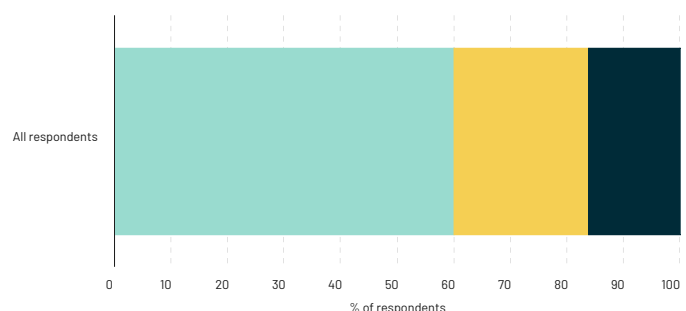
- The European tech community actually takes a surprisingly positive view on the impact of GDPR, especially in terms of whether it has been a good thing for European consumers. There is a more nuanced perspective on whether it has had a negative impact on their own companies, but if it is generally seen as positive for consumers then it's possible to argue it is a necessary cost to scale ethically.**

GDPR has been a good thing for European consumers

DATASET: ALL RESPONDENTS

### LEGEND

- Agree
- Neither agree nor disagree
- Disagree



Source: The State of European Tech Survey

# 12

# Predictions

## What's Coming Next

We explore how some of last year's predictions played out, and give our forecasts for European tech in 2019.

### ARTICLES

---

- 12.1 What We Got Right and Wrong Last Year
- 12.2 Predictions for 2019

## What We Got Right and Wrong Last Year

In last year's report, we made some predictions about what 2018 would hold for European tech

It would be a bit cheeky of us not to look back at them and see how we did...

So, er, how did we do?

### 2017 Prediction

**Founders will come to see regulation as a source of potential competitive advantage**

01

The 'move fast and break things' mentality has never sat well with heavily regulated markets. As founders realise they can gain an advantage through regulatory compliance, it will go from being seen as a perceived handcuff to being seen as a potential source of competitive advantage. Think of Natural

Cycles, Kry or Babylon in the healthcare market. They are all early examples of companies that have embarked upon - and come out on the other side of - lengthy regulatory approval processes to gain an advantage on their competitors.

**We totally got this right!**

Mark: 1/1

This trend came through hard and fast in 2018 across numerous industries. Financial services has long since been an industry where venture-backed companies, such as N26 and Monzo, actively leveraged their fully licensed banking status to strengthen their market positions. In the digital health space, messaging-centric applications such as Forward Health and Siilo have overcome barriers to become powerful new services in their local health systems in the UK and

Netherlands respectively. Perhaps the strongest example of the change in founder attitudes towards regulation, however, has come in the emerging micro-mobility market. European micro-mobility startups such as VOI and Tier have explicitly pointed to their pro-regulation approach as a key source of competitive advantage as they seek to capture the hearts and minds of European consumers and policymakers and to steal a march on US players entering the European markets.



## A venture-backed European tech startup will exit for a \$B+ to a traditional non-tech European giant

# 02

Non-tech European corporates have already made billion-dollar tech acquisitions (Anglo-Dutch Unilever picked up Dollar Shave Club), but acquisitions within Europe have typically been in the hundreds of

millions (for example, BNP Paribas and Comptel Nickel). This will change in 2018 as European non-tech corporates put some of their combined \$1.5 trillion cash holdings to work.

### We...sort-of got this maybe half-right

Mark: 0.5/1

In the purest sense, this did not come to pass. There was no single acquisition of a European VC-backed company for more than \$1 billion to a traditional non-tech European giant. But that's not to say that there was not plenty of relevant M&A activity that validated this trend. In fact, the year started in January with Richemont's acquisition of full control of the European, formerly-VC-backed, but now public company Yoox Net-a-Porter for an implied total

enterprise value of around \$6 billion. Siemens, the German industrial giant, acquired Mendix, a Netherlands-born, -funded and -raised enterprise software company, for \$730 million. In other smaller, but still meaningful transactions, ING Group acquired Payvision for a fee that valued the business at more than \$500 million, while Munich Re acquired Berlin's Relayr for \$300 million. All this taken together, we think this deserves a half mark.

## European founders will increase efforts to tap engineering talent pools outside of traditional hubs

# 03

The battle for talent in Europe is intensifying. Not only are there more venture-backed startups that are better funded and hungrier for engineering talent than ever, but global tech giants are also expanding aggressively in the region with inflated salaries on offer for the most talented. At the same time, European corporates are fighting back,

ensuring talent flows are not a one-way street into tech. In order to stay competitive in this context, European founders will look for creative ways to best exploit the untapped engineering talent pools in less obvious places. For example, we expect to see more satellite offices opening up across the region in upcoming hubs.

### Yeah, we nailed this one too

Mark: 1/1

This trend has certainly taken hold in Europe in 2018, driven by increasing levels of competition for talent in core European tech hubs and a growing awareness of the depth of talent in emerging hubs. According to the more than 1,000 founders that responded to this year's State of European Tech Survey, more than 50% of companies with more than 100 employees have

already opened satellite offices to tap new talent pools and 80% of those founders expressed increased interest in opening additional offices. As one example, N26 has opened its first major office outside of Berlin, choosing Barcelona to build an office that will quickly expand to 100 employees.

## A top tier, established European VC will participate in a token offering/ICO

# 04

In 2017, top tier US funds (including Andreessen Horowitz and Union Square Ventures) actively invested directly in tokens via Initial Coin Offerings. They were joined by some of Europe's

newest funds, such as Blueyard. But the region's most established funds have yet to participate. This will change in 2018.

**Yeah...no, this didn't happen**

Mark: 0/1

This did not happen, at least not publicly. In 2018, making any sort of prediction around the state of the crypto market proved particularly dangerous given the extreme level of volatility in the market and an enduring bear market. The price of crypto assets has inevitably dominated the headlines

through the year, but under the surface European teams have continued to make progress and raise funds from top tier European investors, often via traditional equity. Argent, for example, raised capital from Index Ventures and Creandum.

**So how did we do overall?**

We think 2.5/4 isn't bad going...now onto our predictions for next year...



## Predictions for 2019

### Investing in Underrepresented Founders

01

#### First-time funds targeting underrepresented European communities emerge

The figures are damning. Only 7% of all capital invested in European tech companies in 2018 went to female or mixed gender founding teams. We cannot measure the imbalance in funding allocated to other underrepresented communities, but those figures would only be harder to read. It is even harder to consider just how much talent and value has evaporated away from our industry because they are not being

funded today. We cannot shy away from how difficult it will be to turn this tide. Established VC firms have a responsibility to look harder, and face down their unconscious biases. Dedicated funds targeting investment into these communities are also part of the answer. These numbers have to change if we are to fulfil our potential. 2019 is the year that new funds will start to make this happen.

### Build From Home

02

#### Founders choose to stay where they are and build from home

According to the European Centre for Policy Studies, tech talent in Europe is 10x more likely to move than the average citizen in Europe. This is extraordinary and owes much to the historic geographic opportunities of European tech. Europe is set to enter a third phase in the evolution of entrepreneurial tech talent mobility. If the first phase was defined by the frequent flow of talented European entrepreneurs moving to the US to build

their companies, and the second was defined by entrepreneurs staying to build from Europe but choosing one of the region's major hubs (London, Berlin, etc.); then we're entering a third phase where founders choose to stay where they are, emboldened by the quality of the local ecosystems they see arising around them all across Europe. The more that founders and talent choose to build from home, the more that 10x difference will contract.



## Semicorns?

03

### \$500 million+ rounds become a thing

Softbank Vision Fund has mostly set its eyes on the US, but it has also been active in Europe, leading giant \$500 million+ rounds into Improbable and Auto1. As Europe produces more multibillion-dollar companies to go with

the 12 \$5 billion+ companies that have been founded in the past 15 years and as more growth stage capital lines up to capture the European tech opportunity, we should expect \$500 million+ rounds to become more common.

## EuroSaaS

04

### European SaaS companies take the public stage

European founders and investors are the first to admit that Europe started behind the curve in SaaS. But Europe's leading SaaS companies are making up for lost time and scaling quickly. We're looking at you, UiPath. We are not

going to predict who makes it out first, but we do think 2019 will see the next set of European SaaS IPOs to follow in the footsteps of pioneers such as Mimecast. It's about time too.





# About

Who, How, What, Why

## ARTICLES

---

- 13.1 [Our Data Partners](#)
- 13.2 [Our Contributors](#)
- 13.3 [Acknowledgements](#)
- 13.4 [About Atomico](#)
- 13.5 [About Slush](#)
- 13.6 [About Orrick](#)
- 13.7 [About Studio Lovelock](#)

## Our Data Partners



Advanced HR



CBRE



European Organization  
for Nuclear Research  
(CERN)



Dealroom



European  
Investment Fund



Indeed



Invest Europe



LinkedIn



London Stock  
Exchange



Meetup



Politico Pro  
Intelligence



Preqin



Quid



Stack Overflow



Startup Heatmap  
Europe

## Our 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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**Christina Brinck**  
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Pension Fund



**Ophelia Brown**  
Blossom Capital



**Tugce Bulut**  
Streetbees



**James Clark**  
London Stock  
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**Michael Collins**  
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**Simon Cook**  
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**Rosie Dallas**  
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**Sara Wimmercraz  
/ Susanne Najafi**  
Backingminds



**Chris Yiu**  
Tony Blair Institute  
for Global Change



**Niklas Zennström**  
Atomico



## 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:



**Mike Allanson**  
Studio Lovelock



**Ciarán Boylan**  
Indeed



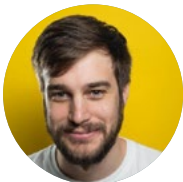
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**Chief Squirrel**  
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## About Atomico

### We're Atomico. You probably knew that already.

But who are we really?

We're not a traditional venture capital firm.

We are built by founders for founders. Every single aspect of Atomico, every part of our culture, and every decision we take, is designed with the sole ambition of helping our partners succeed.

We exist for more than returns. We believe entrepreneurs are the ultimate agents of positive, transformational change across every aspect of our society and economy.

Our mission is to spur this progress forward.

It's why we partner with the world's most ambitious founders. The rule-

breakers who want to build the next leader in their category. The world-shapers creating companies that fundamentally shift the way we live today. The gamechangers using technology to rewire the world in favour of something better, for as many people as possible.

When we find these people, we invest much more than money. We work hand-in-glove with them, drawing on hard-won experience scaling some of the most successful technology companies in the world.

Want to work on this report with us next year? We're looking for a Research Associate. Drop Tom a line at [tom@atomico.com](mailto:tom@atomico.com).

## About Slush

### Once again we've partnered with Slush to produce the State of European Tech report

But what is Slush?

Slush is a global movement, supporting the next generation of founders. It's a not-for-profit event organized by a community of entrepreneurs, investors, students, and festival organizers.

In 2018, Slush gathered more than 45,000 people in 75 events all around the world, from South Africa to Tokyo. The Slush year culminates in Helsinki in December, when 20,000 founders, investors, media and executives from 130+ countries gather in Helsinki.

Held during the darkest time of the year, Slush has always been characterized by a unique energy and enthusiasm.

The very core of Slush is to facilitate founder-investor meetings and to build a worldwide startup community. In 2018, more than 1800 investors and 3000 startup companies came to Helsinki for the event.

Slush is run by a community of students who want to radically change how entrepreneurship is perceived in Northern Europe and beyond. Several successful entrepreneurs, from the founders of Supercell and Spotify among others, have already become a part of the not-for-profit initiative that has already become a movement of global magnitude.

## About Orrick

### But who is Orrick?

Creators. Visionaries.  
Underdogs. The Daring.

Orrick counsels more than 1,800 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, No. 3 globally (PitchBook), top 10 for global M&A (Bloomberg) and advisors to seven of the top 15 global private equity funds. We offer destination practices

in the 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 named us the most innovative law firm in North America in 2016 and 2017.

## About Studio Lovelock

### Studio who?

Smart, open-minded  
and creatively restless

Studio Lovelock is a branding and communications design agency based in London.

We are a collection of open-minded, smart and creatively restless folk, driven to help the businesses we believe in achieve great things.

We are founded on the belief that creativity and clear design thinking are critical components in the long term success of any business.

We pride ourselves on our willingness to push beyond our comfort zone and the quality of the relationships we've built with our clients.

Being friendly, helpful and reliable doesn't hurt either.



[www.studiolovelock.com](http://www.studiolovelock.com)

# 14

## Appendix

Notes, Etc.

### ARTICLES

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- 14.1 Survey Respondents
- 14.2 More About Our Data Partners

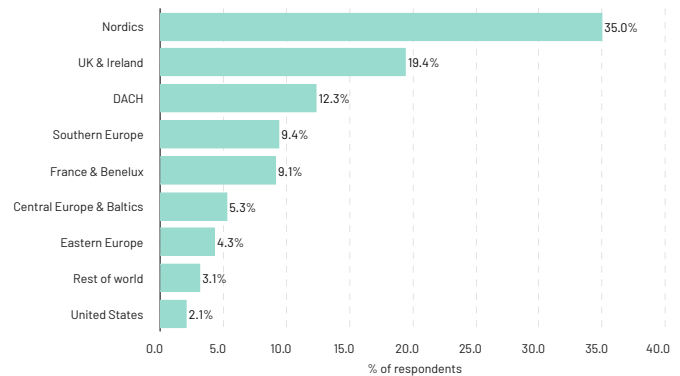
# Survey Respondents

## Geographic origin of survey respondents

### LEGEND

● % of respondents

Note:  
Numbers may not add to 100 due to rounding.



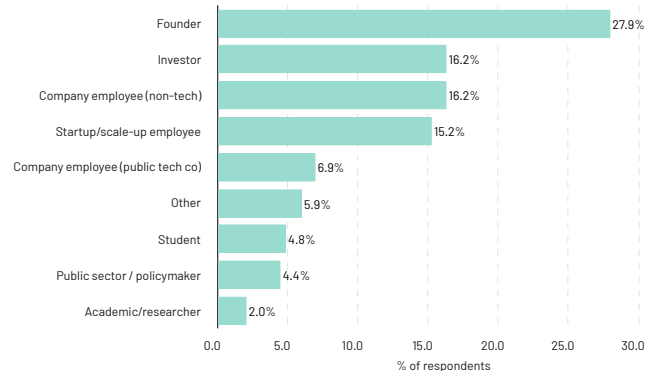
Source: The State of European Tech  
Survey

## Occupation of survey respondents

### LEGEND

● % of respondents

Note:  
Numbers may not add to 100 due to rounding.

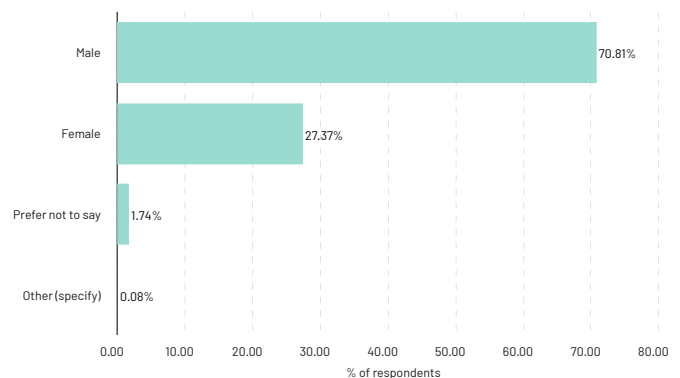


Source: The State of European Tech  
Survey

## Gender of respondents

### LEGEND

● % of respondents



Source: The State of European Tech  
Survey



## More About Our Data Partners

### Advanced-HR

Advanced-HR is the leading provider of pre-IPO compensation data. We partner with top-tier investors and portfolio companies to produce the world's largest compensation database specific to private, venture-backed companies. Advanced-HR's VC Executive Compensation Survey (VCECS) is for corporate use by investors, management professionals,

and service providers. The VCECS results are leveraged in the Option Impact compensation database, an ongoing survey where companies maintain current information in the system in exchange for full database access at no cost. Advanced-HR is a Solium company (Solium Capital Inc.) (TSX: SUM). To learn more, please visit [www.advanced-hr.com](http://www.advanced-hr.com).

### CBRE

CBRE Group, Inc. (NYSE:CBG), 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 2017 revenue). The company has more than 80,000 employees (excluding affiliates), and serves real estate investors and occupiers through approximately 450 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](http://www.cbre.com).

### CERN

The European Organisation for Nuclear Research (CERN) – is a world-renowned centre for scientific research, celebrated for its recent discovery of the Higgs boson. CERN's technology provides concrete business solutions in many fields: from medtech to

aerospace, and industry 4.0, and are already present in start-ups hosted in CERN's network of Business Incubation Centres. CERN is also part of the ATTRACT initiative, a European call for breakthrough ideas that will fund 170 innovative projects from 2019.

### Craft

Craft is a machine-learning powered data and analytics platform building the "Source of Truth" on companies and mapping the global economy. The Company organizes financial, operating and human capital data from thousands

of sources to provide comprehensive, up-to-date sector and company profiles, ranging from early-stage to the largest companies in the world, with analytics and tools such as signal alerts, trends and benchmarking.

### 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: <https://dealroom.co>



## EIF

The European Investment Fund (EIF) is part of the European Investment Bank group. Its central mission is to support Europe's micro, small and medium-sized businesses (SMEs) by helping them to access finance. EIF designs and develops venture and growth

capital, guarantees and microfinance instruments, which specifically target this market segment. In this role, EIF fosters EU objectives in support of innovation, research and development, entrepreneurship, growth, and employment.

## European Startup Initiative

The European Startup initiative behind the Heatmap is a non-profit organization enabling founders and tech talent to navigate European startup hubs and support community builders to connect their ecosystems.

<http://www.startupheatmap.com>

The Startup Heatmap Europe is an annual survey among founders and the greater tech community on mobility and the attractiveness of

startup hubs. The 2018 survey was collected between April and August 2018 and had 1,500 participants. After cleaning and sampling the data, 984 complete datasets remained that were weighted to adjust for regional representativeness on country level. Founders were 57.52% of respondents. For long-term trends in founder mobility, we used a combined dataset of 3 years with 1,661 distinct founder dataset

## 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 200 million

people each month search for jobs, post CVs, and research companies on Indeed, and Indeed is the #1 source of external hires for thousands of companies (sources: SilkRoad & iCIMS). For more information, visit [indeed.com](https://www.indeed.com).

## Invest Europe

Invest Europe is the association representing Europe's private equity, venture capital and infrastructure sectors, as well as their investors.

Our 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 deliver strong and sustainable growth, resulting in healthy returns for Europe's leading pension funds and insurers, to the benefit of the millions of European citizens who depend on them.

Invest Europe aims to make a constructive contribution to policy affecting private capital investment

in Europe. We provide information to the public on our members' role in the economy. Our research provides the most authoritative source of data on trends and developments in our industry.

Invest Europe is the guardian of the industry's professional standards, demanding accountability, good governance and transparency from our members.

Invest Europe is a non-profit organisation with 21 employees in Brussels, Belgium.

For more information visit [www.investeurope.eu](http://www.investeurope.eu).

## LinkedIn

Founded in 2003, LinkedIn connects the world's professionals to make them more productive and successful. With more than 590+ million members worldwide, including executives from every Fortune 500 company, LinkedIn is the world's largest professional

network on the Internet. The company has a diversified business model with revenue coming from Talent Solutions, Marketing Solutions, and Premium Subscriptions products. Headquartered in Silicon Valley, LinkedIn has offices across the globe.

## London Stock Exchange

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

## Meetup

Meetup is a global community platform that connects people in real life. It was founded with one simple idea: use technology to get people off technology. Our vision is to harness technology to remove the barriers to human connection and deliver real life community. Meetup supports over 40 million members+, 320,000+ Meetup groups and 12,000 Meetups per day

around the world. Meetup was acquired by WeWork in 2017. The two companies share a vision of the power of bringing people together, and together using technology to create new and innovative ways of building community. Follow us @Meetup on Twitter, @Meetup on Instagram and Facebook, or visit [meetup.com](https://meetup.com) to learn more.

## Politico

POLITICO Europe, launched in April 2015, is a joint venture between POLITICO LLC, a global nonpartisan politics and policy news organization, and Axel Springer, the leading digital publisher in Europe.

With operations based in Brussels and additional offices in London, Berlin, Paris, Warsaw, and Frankfurt, POLITICO Europe connects the dots between European power centers. In June 2018, an annual ComRes/Burson-Marsteller survey ranked POLITICO Europe as the #1 most influential publication on European affairs, for the second year running.

POLITICO's premium policy intelligence service, POLITICO Pro, empowers thousands of policy experts and decision-makers from over 730 organizations in 28 countries, on key

industries from Technology, Financial Services and Trade to Competition, Data & Digitization, Mobility and more. Subscribers include EU and national government, corporations, trade associations, consultancies, law firms, and NGOs.

POLITICO Pro's newest offering, Pro Intelligence, is an innovative platform which fuses the power of technology with the power of journalism, providing professionals with an overview of bills, legislation, voting behaviour 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.

## Prequin

Prequin is the home of alternative assets, providing indispensable data, solutions and insights to support alternative asset professionals at every stage of the investment cycle. Since 2003, we have been the most trusted source of information on alternative assets, spanning private equity, venture capital, hedge funds, real estate, infrastructure, private debt, natural resources and secondaries.

Our products and services are relied upon by more than 60,000 industry participants in over 90 countries, for a range of activities including fundraising, investor relations, asset allocation, fund manager selection and business development. Prequin is an independent business with over 400 staff based in New York, London, Singapore, San Francisco, Hong Kong, Guangzhou and Manila.

## Quid

Quid is software that reads millions of documents and offers immediate insight by organizing that content visually. We power human intuition with machine intelligence, enabling organizations to make decisions that matter. The tool uses big-data

analytics, natural language processing and network science to help surface key insights, enabling our Fortune 1000 clients to quickly complete analyses like competitive tracking, market landscapes, brand narrative maps, and intelligence briefings.

## Stack Overflow

Founded in 2008, Stack Overflow is the largest, most trusted online community for developers to learn, share their knowledge, and build their careers. More than 50 million professional and aspiring programmers visit Stack Overflow each month to help solve coding problems, develop new skills, and find job opportunities. Stack

Overflow partners with businesses to help them understand, hire, engage, and enable the world's developers. Our products and services are focused on developer marketing, technical recruiting, market research, and knowledge sharing within organizations.



## Thanks for taking the time to read this year's State of European Tech Report

This report wouldn't be possible without the many valuable contributions from our data partners and the tireless work by our survey distribution partners who help us reach tech communities across the continent each year.

If you are interested in becoming a data or community partner for next year's report please drop us an email on [media@atomico.com](mailto:media@atomico.com) with the subject line 'SoET 2019' and we will get back to you in due course.

We look forward to sharing the results with you next year of what has become the most comprehensive data-driven study of the European technology ecosystem available today.

**Tom Wehmeier and the Atomico Team**