INDEPENDENT PUBLICATION BY

RACONTEUR

RACONTEUR.NET | #0633 | 28/11/2019

ACCELERATING TECH STARTUPS

ACCELERATING TECH STARTUPS

Distributed in

THE TIMES

Published in association with

FOUNDER INSTITUTE

Contributors

Sophie Charara
Associate editor at *WIRED UK*, she writes about technology and culture.

Nick Easen
Award-winning journalist and broadcaster, he covers science, tech, economics and business, producing content for *BBC World News*, *CNN* and *Time* magazine.

Karam Filfilan
Business editor and journalist specialising in HR, the future of work and innovation. Previously deputy editor of *Changeboard*.

Emily Hill
Journalist and author, she is the former commissioning editor at *The Spectator* and feature writer for *The Mail on Sunday*.

Rich McEachran
Journalist covering tech, startups and innovation, he writes for *The Guardian*, *The Telegraph* and *Professional Engineering*.

Oliver Pickup
Award-winning journalist, he specialises in tech, business and sport, and contributes to a wide range of publications.

raconteur reports

Publishing manager
Jack Bailey

Associate editor
Peter Archer

Deputy editor
Francesca Cassidy

Managing editor
Benjamin Chiou

Digital content executive
Taryn Brickner

Head of production
Justyna O'Connell

Design
Joanna Bird
Sara Gelfgren
Kellie Jerrard
Harry Lewis-Irlam
Celina Lucey
Colm McDermott
Samuele Motta
Jack Woolrich

Head of design
Tim Whitlock

PRODUCT

New tech must deliver real-world solutions

True "product market fit" may be the key to success, but a successful outcome can be hard to measure

Sophie Charara

The lone tech genius is dead, long live product market fit. That's the advice you could take from the concept developed by Andy Rachleff, now executive chairman of the Palo Alto-based investment services firm Wealthfront.

In other words, teams and talent are important, but not as important as conceiving or pivoting to "an idea that addresses an amazing point of pain around which consumers were desperate for a solution".

So what does product market fit mean for tech startups going into 2020? It starts with connecting to the real world.

According to Cyril Ebersweiler, general partner at SOSV, and founder and managing director of HAX, a two-stage venture capital programme for hardware in San Francisco and Shenzhen, startups can determine whether their product or service is actually meeting a need through conversations with potential customers.

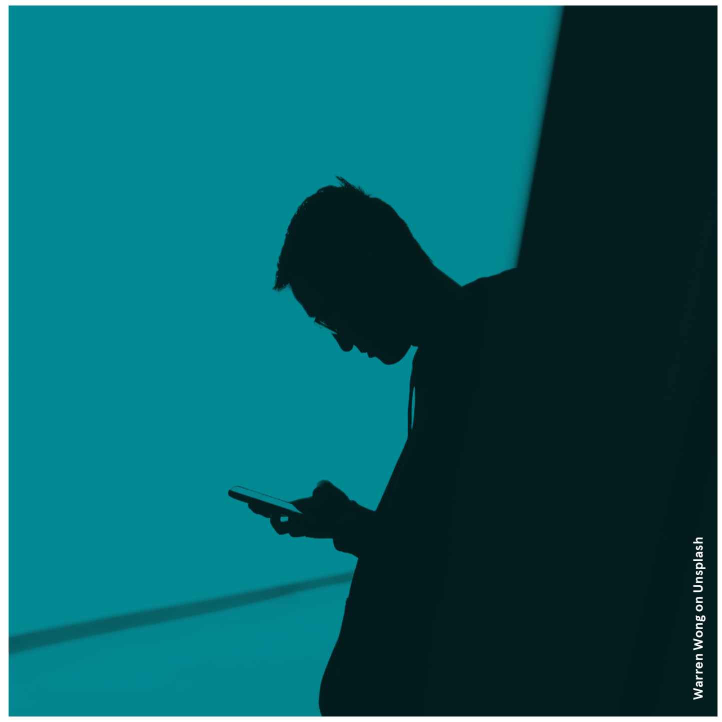
"In the business-to-consumer (B2C) space, the customers are for the most part early adopters, and it's easy to confuse being successful with that group and having a business for the masses," he says. "In the business-to-business (B2B) space, said needs are generally well understood by entrepreneurs since they most likely are coming from said industry, but they have yet to make sense out of the product and the company's business model."

These conversations can take a number of forms. At Gallium Ventures, a London-based strategic consultancy that works with early-stage startups, venture capitalists and large listed companies, the team encourages founders to allow cross-pollination between, for instance, sales, public relations, social and marketing teams.

"Google Analytics is also a surprisingly underutilised resource for brands and can help various internal teams in sussing out what works," says Heather Delaney, founder and managing director of Gallium Ventures.

Mr Ebersweiler, meanwhile, stresses that HAX has used "every possible channel to validate product market fit over the years". This includes more than 120 kickstarter campaigns for B2C startups and hundreds of pilots on the B2B side.

David Haynes, director of the Vive X programme in Europe, works in virtual reality (VR) and augmented reality (AR) innovation, where there is a lot of exciting technology that may not scale. He encourages startups to focus on tracking whether their customers are actually using their products.



Warren Wong on Unsplash

"For a consumer VR startup this means looking at user engagement and retention, such as daily or monthly active users, and not just the number of downloads or press attention," says Mr Haynes. "For an enterprise VR startup, it means being able to show they've moved past proof-of-concept stage, or initial conversations with the team, and the product is being deployed and used throughout an organisation."

One metric that is often quoted by tech startups in relation to product market fit is the importance of an LTV:CAC ratio. This is simply the lifetime value (LTV) of a customer as it compares to the customer acquisition cost and an ideal LTV:CAC is thought to be 3:1. It affects everything from product pricing and the channels through which the startup will be acquiring customers.

"The LTV:CAC ratio really comes down to the margin you make and the model you are working with," says Melissa Snover, founder and chief executive of startup Nourished, which is based in Birmingham and 3D prints personalised vitamin "stacks". "Our fully integrated business model is more complex to set up, but allows for us to have a higher net margin to spread awareness and the dynamic flexibility to pivot and develop more products as the demand dictates."

It's even more important for startups building B2B hardware to measure, says Mr Ebersweiler, and difficult to put in place. "Take Amper, a company which monitors the manufacturing activity of a factory," he says. "They had to work on very cost-efficient hardware to justify their CAC or make it close to what a typical SaaS [software-as-a-service] model would be."

The LTV in this case comes with the "stickiness of the solution" as once this type of technology is physically embedded with a client, such as a manufacturing facility, it becomes very difficult to replace the system with something else.

It's not just accelerators, but startup founders themselves who are navigating this concept with a view to 2020. As Ms Snover explains, some of the best consumer products and services are "born from a sincere need or pain point, often felt by the founder in the first instance".

Then comes the research to see how many people there really are in this cohort. "With direct-to-consumer models like ours you can assess market fit with customer reviews, traction and pick-up rate of the product, as well as referrals from existing customers," she says.

These ideas of traction and referrals point to an important aspect of the concept. "In general, product market fit is when your customers spread out your product," explains Mr Ebersweiler. "In consumer hardware, this definitely means a number of customers that's out of the ordinary and high growth. The remaining component is ease of acquisition and this is where most could fail as distribution is a complex and costly system to put in place."

Within this framework, the friction to test hardware, such as consumer gadgets, which have been recommended to you by early adopters, will be higher than instantly downloading an app. "Not everyone is going to love the product," says Ms Delaney. "But once you understand the similarities between the customers who do love the product, you can leverage that to make a product or service a greater success."

Achieving product market fit with something genuinely new and innovative can be daunting for people such as Tayga Baltacioglu, founder and chief executive of the cleaning app Cleanzy, which launched in the UK earlier this month. He also points to "the power of personal experiences" in identifying problems to solve, which could include issues faced by workers in the gig economy.

"Increasingly, the businesses which succeed and find the right fit are those that address social or environmental issues," he says. "Without these elements at the core, I believe businesses are unlikely to find a place in the market of 2020."

TOP REASONS WHY STARTUPS FAIL

Analysis of startup failure post-mortems

42% No market need

29% Ran out of cash

23% Not the right team

CB Insights 2019

ENTREPRENEURS

Young firms still need age and experience

The average age of tech startup founders is older than you might think

Emily Hill


Thomas Barwick/Getty Images

Youth, the playwright George Bernard Shaw famously claimed, "is wasted on the young". But when it comes to the public perception of the qualities of a startup founder, thanks to Mark Zuckerberg and co, the appearance of youth seems to be prized above all other attributes.

And yet the truth is, if you delve into all the data available, the average age of founders of the most successful tech startups is 45. Moreover, according to a study published by *Harvard Business Review*, even the tech titans who did start out in their early twenties – Bill Gates, Steve Jobs, Jeff Bezos, Sergey Brin, Larry Page – experienced their biggest business success when they were middle aged. Steve Jobs and Apple launched the iPhone when he was 52, while Amazon's future market capitalisation growth rate was at its peak when Jeff Bezos was 45.

"Every entrepreneur has a unique story," says Aftab Malhotra, 41, founder of disruptive artificial intelligence tech startup GrowthEnabler. "That involves big exponential ideas, passion and courage."

The qualities of a startup founder also include "patience, pattern recognition, grit, communication skills and authenticity", argues serial tech entrepreneur Sachin Dev Duggal, chief executive of Builder.ai.

Age helps, he adds: "What I understand today, that I didn't decades ago when I started out, is to be a successful entrepreneur you have to be able to see past the noise and darkness and brave your way to the other end."

Wisdom build over the decades. "My fifth startup, Carbonite, just got sold for $1.4 billion and I'm almost three years into my sixth, Wasabi, data storage in the cloud," says David Friend, founder and chief executive of Wasabi Technologies, now aged 71 and a successful, seven-time entrepreneur. "I finally feel like I know what I'm doing. My first startup, right out of college, was reasonably successful, but it makes me cringe to think of all the dumb mistakes I made.

45 average age of founders of the top 0.1 per cent of tech startups based on growth in their first five years

Age and High-Growth Entrepreneurship, Pierre Azoulay et al 2018

"After more than 40 years as a CEO, you see many of the same issues emerge over and over again. Issues like how to put a team together, how to position and differentiate a product, building a corporate culture. After all this time, I have a sense of what will work and what won't. More importantly, I have a higher degree of confidence in my day-to-day decisions and that sense of confidence ripples through the organisation."

Despite all the media emphasis on young entrepreneurs, the qualities of a startup founder are enhanced with age and this helps when it comes to seeking investment, scaling their business and ultimately achieving a successful exit after acquisition.

"I IPO'd a business I started in my twenties, I grew a not-for-profit in my thirties and now my latest business is growing at a pace that is exhilarating and terrifying in equal measure," says Mark K. Smith, chief executive of tech company ContactEngine. "I've raised tens of millions of dollars and I've seen huge success."

But, like many other successful tech entrepreneurs, Dr Smith has also suffered, and survived, failure. He sums up his tale within the length of a tweet: "(12/04/2000) IPO on LSE, market cap of £100m, price dropped 40% in a day. Worth £8m at 8am, £5m at 4pm. Hero to villain in exactly 8hrs." This happened when he was only 34.

"You'd imagine, wouldn't you, that this experience might be the end of a career? Well it wasn't for me. The thing is that when you IPO you are entering into a human construct that defies logical explanation. Markets ebb and flow not, as you might imagine, on the basis of science, but of the more nebulous metric of sentiment," says Dr Smith.

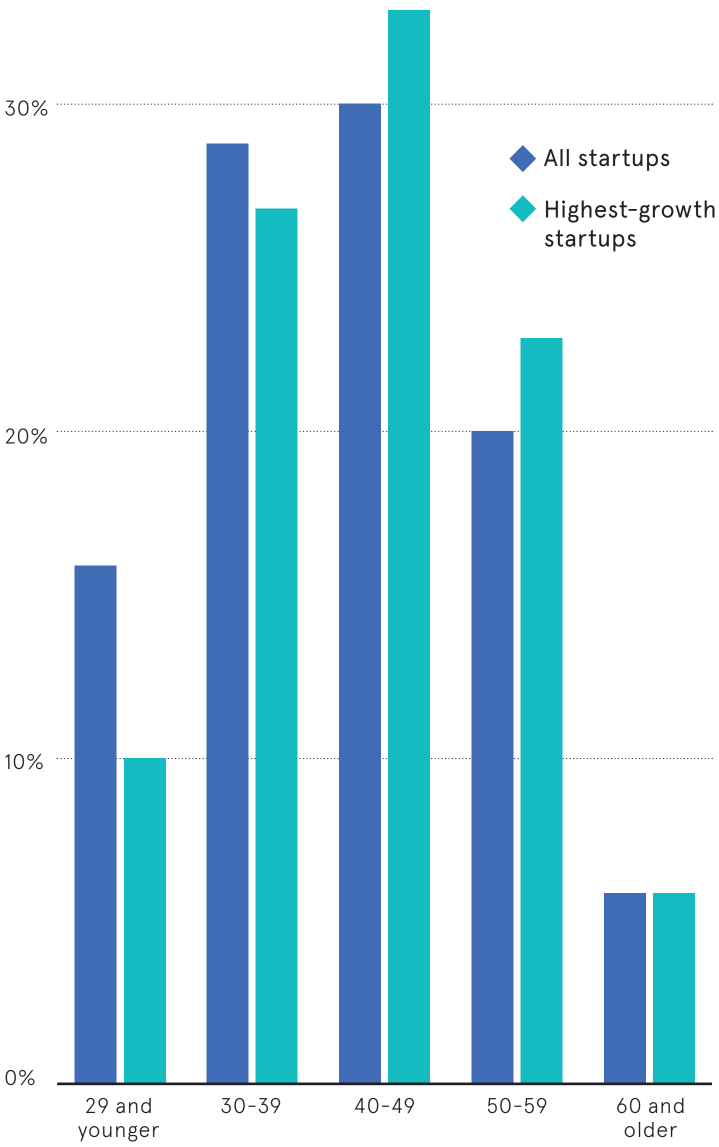
Sentiment, on a national scale, explains our negative attitude to failure in the UK; we would not see having failed as one of the essential qualities of a startup founder.

"I'll always remember the classic water cooler conversation with a friend of mine told me she'd heard someone commenting on me,' recalls Eric Mayes, CEO of the Cambridge tech company Endomag, which uses nanoparticle technology to help surgeons mark and remove cancerous tissue.

"They had said, 'Eric has great ideas, but he'll never deliver', because my first venture failed. Of course, it hurts and touches you, even though you know it is narrow thinking. It's always a shock to hear people think that way, when you have the kind of

AVERAGE AGE OF STARTUP FOUNDERS

Percentage of founders by age group, highest-growth startups are defined as the top 1 per cent of startups by growth



Age and High-Growth Entrepreneurship, Pierre Azoulay et al 2018

positivity that creates something out of nothing," he says.

Older tech entrepreneurs who've overcome early disaster have resilience; they're not afraid to ask questions or ashamed to admit they don't know everything. "There is a certain power in not trying to be the oracle with all the answers," Mr Mayes explains. "It frees you up to ask the questions that lead to better answers. It's a great basis for managing people, projects or teams in general."

By contrast, in the United States, failure is viewed as a nightmarish part of the American dream.

"'Failing fast' is a mantra that startups and entrepreneurs often quote," says Mr Malhotra. "What that means is having the courage, passion and tenacity to do what others fear. Try things and challenge the way things are done. Being an entrepreneur is the hardest and most mentally exhausting undertaking and those who have the energy to try again and again will learn and grow at warp speed."

Ironically, having been through failure is one of the ultimate qualities of a startup founder that give older business brains an advantage. "Entrepreneurs who 'fail' will eventually succeed and change the world. They will become the mavericks, the disruptors and the leaders the world admires," says Mr Malhotra, giving 48-year-old Elon Musk (Tesla, SpaceX) and 81-year-old Ratan Tata (Tata Group) as examples.

> After more than 40 years as a CEO, you see many of the same issues emerge over and over again

Interestingly, Dr Smith sees the experience that comes with age as so integral to the qualities of a startup founder that he's only really interested in investors who are at least 45 years old. "That seems rather specific doesn't it? Well here's why: the last tech crash's 20-year anniversary is next April and, if you ignore the 2008 banking collapse when, oddly, the 'new' tech bubble avoided being burst, then we are due for a 'correction' quite soon," he says.

"And if your investors are wee boys or girls and have not seen the trough and only the peak, then beware. Because you need to understand that shares go down as well as up. That is when 'proper' companies win out. Just another 'Uber of' or another social media silliness will crash and burn."

Commercial feature

Germany's capital tech hub

Berlin is building a reputation as a global tech startup powerhouse

Described by leading US-based technology and business magazine WIRED as a startup scene that's "grown up", the figures back up Berlin's tech maturity over recent years.

According to international industry analysts, 50 per cent of all of Germany's startups – almost 3,000 companies – are based in the capital. Also, Berlin has 50 per cent more female founders than in other German cities and there are nearly 100,000 tech industry employees. Last year alone, 500 startups were launched and nearly 250 deals were made.

Christian Herzog, head of the digital business division at Berlin Partner for Business and Technology, a company engaged in a unique public-private partnership with the Berlin Senate and more than 280 companies, supports emerging and established startups.

He points out that after the German reunification, production in Berlin had dropped significantly, but since then various industries have been re-established.

"More than half the innovation companies are now in Berlin and that's a boost for the startup scene," he says.

Affordable flat and desk-space rents, a good quality of life, a creative atmosphere and a number of business incubators are among the many reasons why the German capital has become an attractive base for startups and innovators.

Additionally, with 50 per cent of the city's startup staff from countries across the globe, Berlin is an international city sitting in the heart of Europe. It's something Berlin Partner is fully embracing.

One of the company's flagship global programmes is Start Alliance. To adapt business models to international requirements and accelerate corporate innovations effectively, the programme acts as a business network between the most dynamic startup hubs worldwide, including New York, Shanghai and London.

Mr Herzog, who headed the launch, says: "The idea of Start Alliance is to build a new form of partnership based on two elements, on the one hand helping young companies expand to other cities fast and cheap, and on the other exchanging ideas for smart city solutions. We achieve this by actively supporting startups on practical issues, for example when it comes to questions on working permissions."

€2.6bn+ in startup funding in 2018

€1.6bn+ investment in ecommerce sector 2018

> There's the potential to realise your dreams here

Alongside its international agenda, Berlin Partner offers clients a range of packages that cover talent, location, financing and innovation.

Prioritising the needs of founders is at the heart of the company's mission. "Before we start supporting companies, we ask them what their needs are, what we can do to help them build their company as fast as they can and what barriers they face," says Mr Herzog. "Our clients enjoy the best of both worlds: the city view and an ear to the market. It's this structure that allows us to do more than is possible in other countries."

Uganda-based Ruth Nabembezi is just one of the many founders to have benefited from the city's startup ecosystem. Her sexual health app, Ask Without Shame, provides an accessible and safe platform where people can anonymously ask qualified medical experts sexual health questions.

During her time in the city, she participated in the Vodafone accelerator programme and was able to grow her company further by additional funding, mentoring and networking opportunities. "Berlin is so unique. It's a no-nonsense, business-friendly environment and has a wealth of financing options, incubators and a multicultural workforce. I would recommend Berlin to other social entrepreneurs," says Ms Nabembezi.

As the city continues to shake up the global startup scene, Mr Herzog is confident that the future looks bright for Berlin's burgeoning industry. "There are many benefits to being in the city right now," he says. "The startup language is English, so many businesses feel comfortable here, and a business can attract local, national and international investment.

"With its melting pot of people and ideas, Berlin will become the flagship of innovation in the country. There's potential to get things done and the potential to realise your dreams here."

For more information please visit berlin-partner.de/en

Berlin Partner for Business and Technology


John Phillips / Stringer / Getty Images

INTERVIEW

We need tech for the many, not the few

Lastminute.com co-founder and Twitter board member **Baroness Lane Fox** calls for change in the tech sector and says its number-one goal should be to create a better world

Nick Easen

If there's one person who knows a thing or two about accelerating startups it's Martha Lane Fox, co-founder of Lastminute.com. She was catapulted to fame in the dotcom boom and, even though 21 years have passed, this self-confessed dotcom dinosaur is still passionate about technology, now with a new mantra: it's time the sector did more to improve people's lives, be responsible and tackle the climate crisis.

"It's incredibly important that innovators think about whether they're trying to answer the right problems. We don't need any more customer relationship management software, flying cars aren't going to be helpful to us in the next ten years either, especially as we face this ginormous climate crisis," says Lady Lane Fox.

"If we've learnt anything over the last decade, it is that you can't have capitalism without a cost. We need to make it responsible and sustainable; clearly the world is shifting to that position. Growth at all costs and this horrible notion that we can move fast and break things, is now dead. It is not an acceptable way to behave in 2019."

Baroness Lane Fox of Soho, her official title, is on a mission, embodied in the think tank Doteveryone, which she founded three years ago. It does research, offers training and toolkits, and raises awareness of issues the tech sector faces, in the wake of scandals of the Cambridge Analytica-come-Facebook and Silicon Valley variety.

"If I ever hear anyone talking about tech ethics, as if talking about it makes you behave in an ethical way, I am going to start screaming. It feels like every tech company, all they need to do is say the word 'ethical' and they are somehow ethical. It's not true, you need to deploy practical applications of what that means," she exclaims.

"I started Doteveryone to champion responsible technology that works for everyone, not just the few. It's not just about building better software, there are other questions. Are you working in a diverse team? Are you thinking about the inequalities that are created because of what you're building? Are you thinking about your environmental impact?"

For instance, research by Doteveryone found more than a quarter of UK tech workers have experienced a decision taken about a product that they felt could be negative for people and society.

"I believe in the power of technological innovation to improve people's lives, but it has to be created with an awareness of what the unintended consequences might be and

> **It feels like every tech company, all they need to do is say the word 'ethical' and they are somehow ethical. It's not true**

that's been lost in the last decade," says Lady Lane Fox, who is also on the board of Twitter, Chanel and the Queen's Commonwealth Trust.

The youngest women to sit in the House of Lords and chancellor of the Open University, she is a strong believer in team spirit and that success is dependent on the people around you. She puts the recent ban by Twitter on political advertising, announced by founder Jack Dorsey, down to good teamwork. Sage advice for tech entrepreneurs, but for Lady Lane Fox, it doesn't stop there.

"We need a more diverse set of voices. I don't believe we've tapped into the full potential here in the UK. We've such an amazing opportunity to build exciting stuff and it's going to come from different places. By that I mean a lot more from beyond London and from people of different backgrounds, socio-economic groups, races and identities," she says.

"That is where we'll see huge gains as a society, but it'll only happen if we put diversity and inclusion at the heart of how we think about things. Only 2 per cent of venture capital goes to female founders. This shows there's huge potential. It's more about a mindset shift and this involves thinking about have we can get the broadest bunch of creatives working in UK tech."

This diverse mindset is vital today. The world wide web is only 30 years young this year, back when Lastminute.com rose to fame and fortune; booking package holidays via the internet on a whim was a novel experience. Fast forward two decades and it's an everyday experience. The Internet is now a crowded place, while the digital common fields are being grazed bare by a dizzying number of startups, buoyed by endless pots of cash from investors looking for the next tech unicorns.

"It's hard to build a business now if you don't have a relationship with Facebook or Google. That's so different than it was in the past. It's also alarming. Our internet is in lockdown and if you add in the notion of a parallel web being built in China, then it's a more complicated and balkanised picture," explains Lady Lane Fox, who was awarded a CBE for services to the digital economy and charity in 2013 and shortly after also made a life peeress.

"This is somewhat dispiriting when the original promise of the internet, back in the late-1990s, was this incredible distributed and fragmented, as well as empowering, digital world wide web which would allow people from all over the world to have a voice and that's very different compared to the landscape today."

Despite talk of "splinternets", China's authoritarian domination of the digital universe, as it invests in artificial intelligence, or lack of female founders, Lady Lane Fox is optimistic about the future. She is especially hopeful for startups looking to solve the real challenges society faces, whether focusing on empowering the half of the world that still isn't online, healthcare, education or averting climate crises. This is where ambitious tech entrepreneurs can make a real difference.

"I don't just mean those who want to create a billion-dollar unicorn, that doesn't interest me. Be ambitious in terms of the problems you are trying to solve, make it count. Because having a startup is hard. It's incredibly demanding, lonely and difficult," she concludes.

"Take something you think's going to contribute to human endeavour, so when you look back in ten years' time at your work, you'll feel happy you spent all that time on it."

Legislation helps us 'thrive'

Martha Lane Fox is also a cross bench peer in the House of Lords, joining when she was just 40, the youngest woman ever in the upper chamber. She's hot on the power of legislation when it comes to tech.

"Legislation can help us thrive, the EU's GDPR [General Data Protection Regulation] was a clunky, enormous piece of legislation, but it changed how companies think about how people use their data," she explains. "We have to encourage good legislation to promote both startups, but also the sustainable and responsible growth of existing companies."

Lady Lane Fox also thinks there are opportunities for digital innovation within government: "We haven't really digitised a lot of our institutions. I don't mean putting everything online, but carefully thinking about where technology can deliver a much better service or enable public sector workers to do their jobs better. There's an enormous opportunity."

Capitalising on Cardiff's tech boom

Cardiff offers a skilled workforce and funding for tech companies looking for like-minded innovators

Once the biggest coal exporting port in the world, Cardiff has transformed itself in recent years from being an economy reliant on industrial production to a booming and shiny digital tech hub.

According to Tech Nation's *A Bright Tech Future* report on jobs and skills, published in the summer, the Welsh capital is considered to be one of the fastest growing tech hubs in the UK. As of 2017, there were more than 26,000 workers in the city's digital economy, with 21,500 in digital tech roles across all sectors, which accounts for just under half the number of people employed in digital tech throughout Wales.

Importantly, demand for Python developers in the city has grown over 3,000 per cent since 2015 and for data scientists and devops engineers has roughly tripled.

Growth is being driven in part by Cardiff's impressive quality of life and affordable cost of living. Separate research from Tech Nation – the latest edition of its annual report on the state of tech in the UK – found that 71 per cent of startup founders and tech professionals believe these factors make the city an ideal place to start a business.

Simon Thelwall-Jones, who heads the technology ventures team at the Development Bank of Wales, explains: "As an equity cluster, Cardiff is a real tech hotspot with a thriving business community that is attracting the attention of innovative and high-growth companies.

"At the Development Bank we believe the right funding for high-growth tech companies is essential, particularly when looking to build traction, commercialise products and attract talent. As a long-term investor, our equity funding can make all the difference."

The Development Bank of Wales works with companies from their startup stage through to exit, offering entry equity investment of between £50,000 and £2 million, and up to a maximum of £5 million per round. The aim is to give them a competitive advantage and create long-term value.

An example of a business that received its support is OpenGenius, the Cardiff-based company behind the task management app Ayoa, whose previous software solutions were relied on by employees at Apple, Microsoft and Disney, to name a few.

In 2017, it became the first Welsh company to be accepted on the London Stock Exchange's accelerator training and networking programme. At the start of this year, it announced it had received £1.1 million in equity investment, including £500,000 from the Development Bank of Wales.

OpenGenius' founder Chris Griffiths believes the investment will help the company expand its international customer base. The company also has aspirations to float on the stock market in the near future.

According to the British Business Bank's small business equity tracker, there were 30 equity deals made in Cardiff in 2018. This is more than in Manchester and third behind Edinburgh and Cambridge in terms of the number of deals made outside of London.

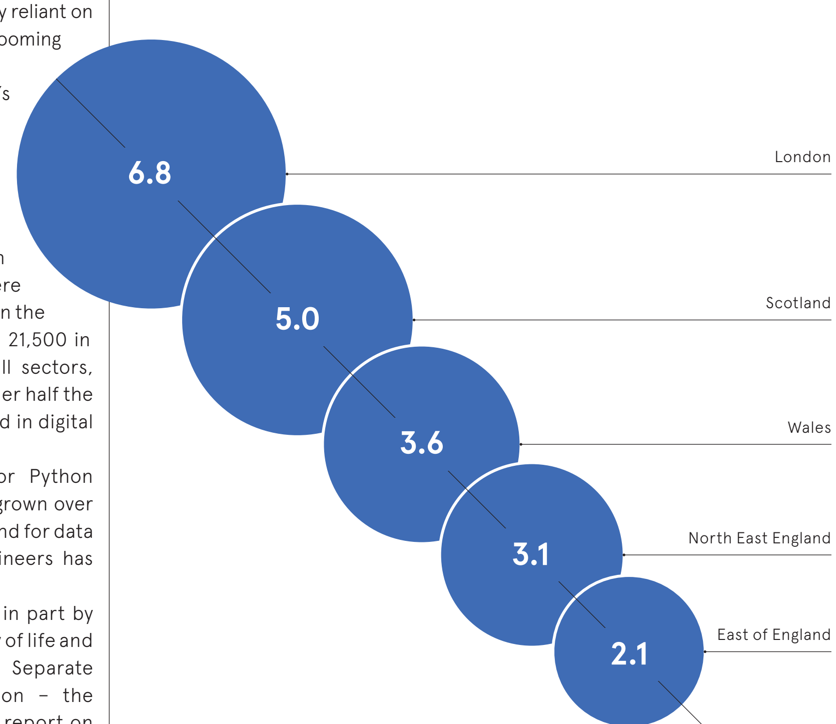
The figures are cause for optimism. But to capitalise on Cardiff's tech boom, there needs to be continued financial support to help innovation flourish, and attract and retain talent, hence the importance of the Development Bank of Wales.

Mr Thelwall-Jones concludes: "Attracting more venture capital, corporate and specialist investors to Wales, and supporting the development of equity clusters is what we're all about.

"Wales really has got it all: the talent, the funding and the ambition to succeed. In fact, the number of equity investors operating in Wales between 2017 and 2019 increased by 350 per cent. That's the highest increase in any area."

> Cardiff is a real tech hotspot with a thriving business community that is attracting the attention of innovative and high-growth companies

WALES RANKS THIRD IN EQUITY DEALS PER 10,000 SMES (2018)



British Business Bank 2019

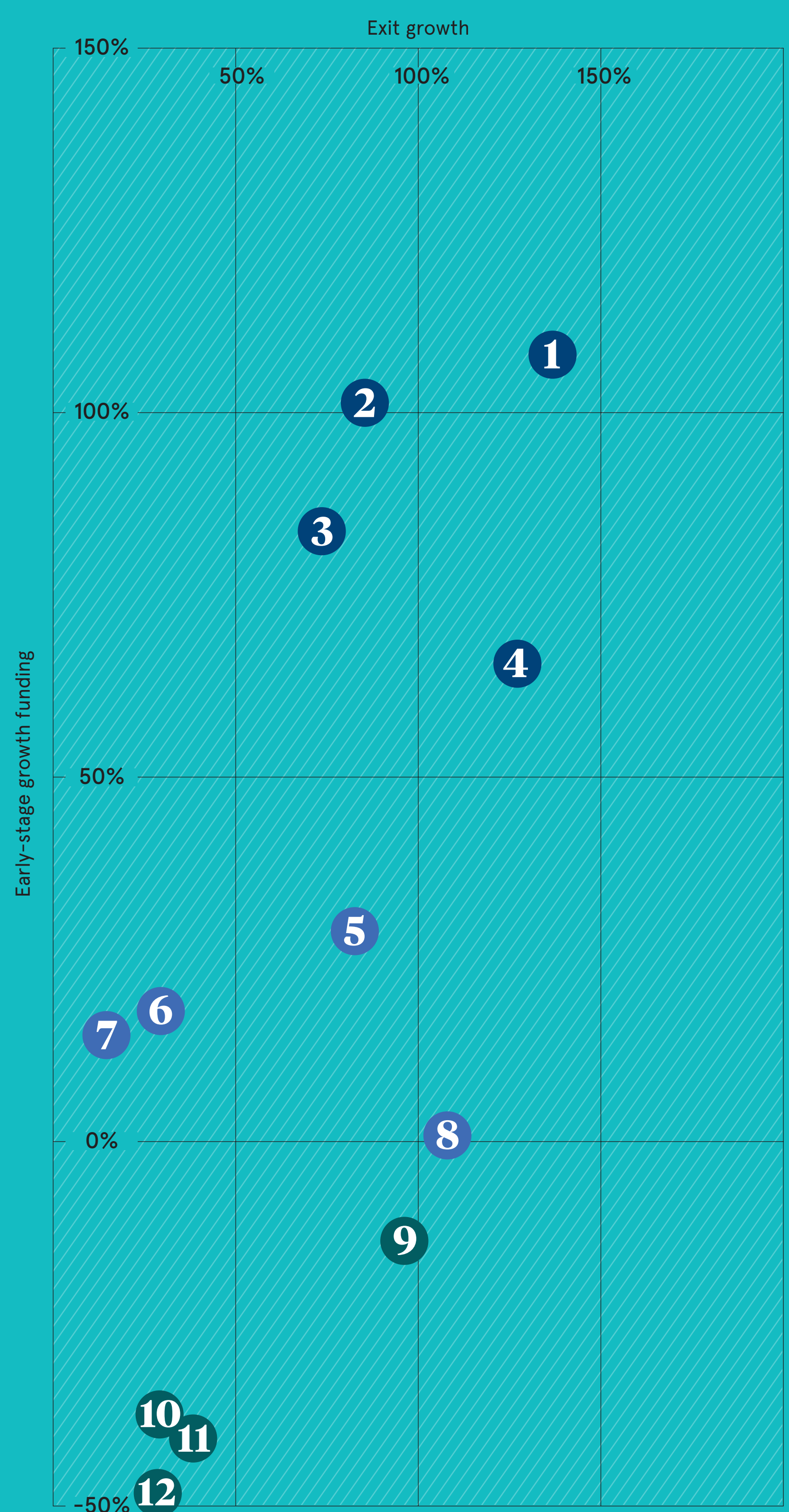
THE STARTUP ECOSYSTEM

From AI to gaming, tech startups across the world are attracting huge interest from investors, receiving millions (if not billions) of funding. But while digital media is by far the largest sector when it comes to the number of startups, early-stage funding is slowing and flowing into other industries such as manufacturing and robotics

HOTTEST SUB-SECTORS FOR TECH STARTUPS

Comparing early-stage growth funding with the growth in the number of exits over the past five years. Early-stage funding includes seed and series A funding; exits are either IPOs or buyouts valued between $50 million and $1 billion

Startup Genome 2019



Early-stage growth funding
Exit growth

Growth

1 Advanced manufacturing, robotics — 107.9% — 143.8%

2 Blockchain — 101.5% — 93.9%

3 Agtech, new food — 88.8% — 74.1%

4 AI, big data, analytics — 64.5% — 130.3%

Mature

5 Cybersecurity — 29.1% — 87.3%

6 Cleantech — 18.3% — 26.2%

7 Life sciences — 15% — 15%

8 Fintech — 1.1% — 105.8%

Decline

9 Edtech — -15.8% — 99.1%

10 Digital media — -38.9% — 30.1%

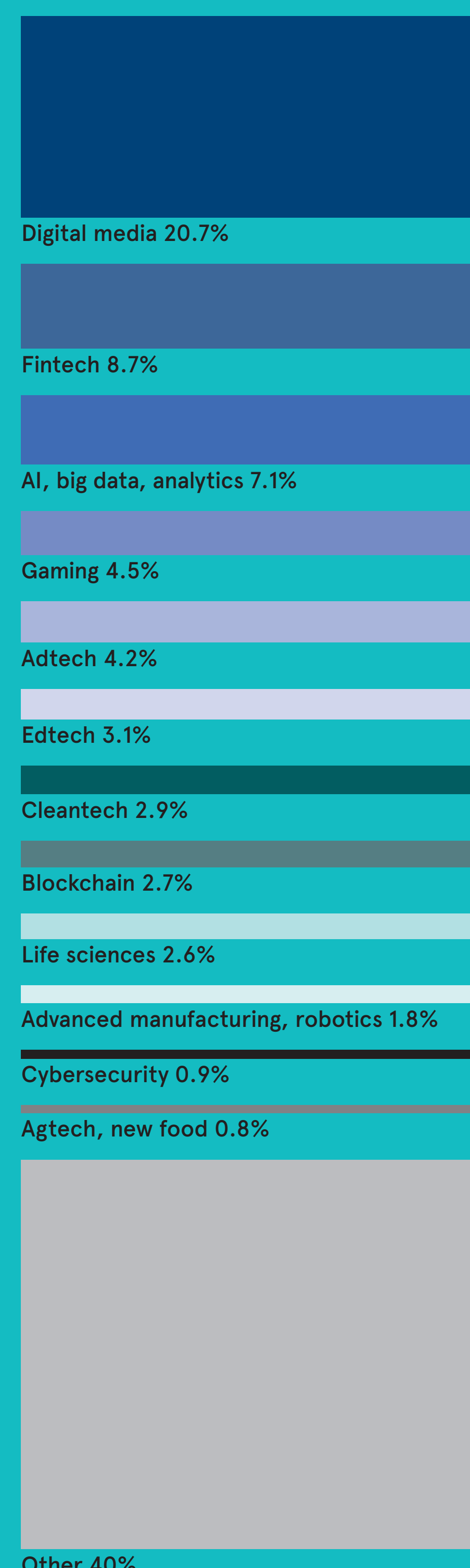
11 Gaming — -40.4% — 31.7%

12 Adtech — -47.9% — 29.9%

SHARE OF STARTUPS BY SECTOR

Based on the number of companies, not valuations

Startup Genome 2019



WHERE THE UNICORNS LIVE

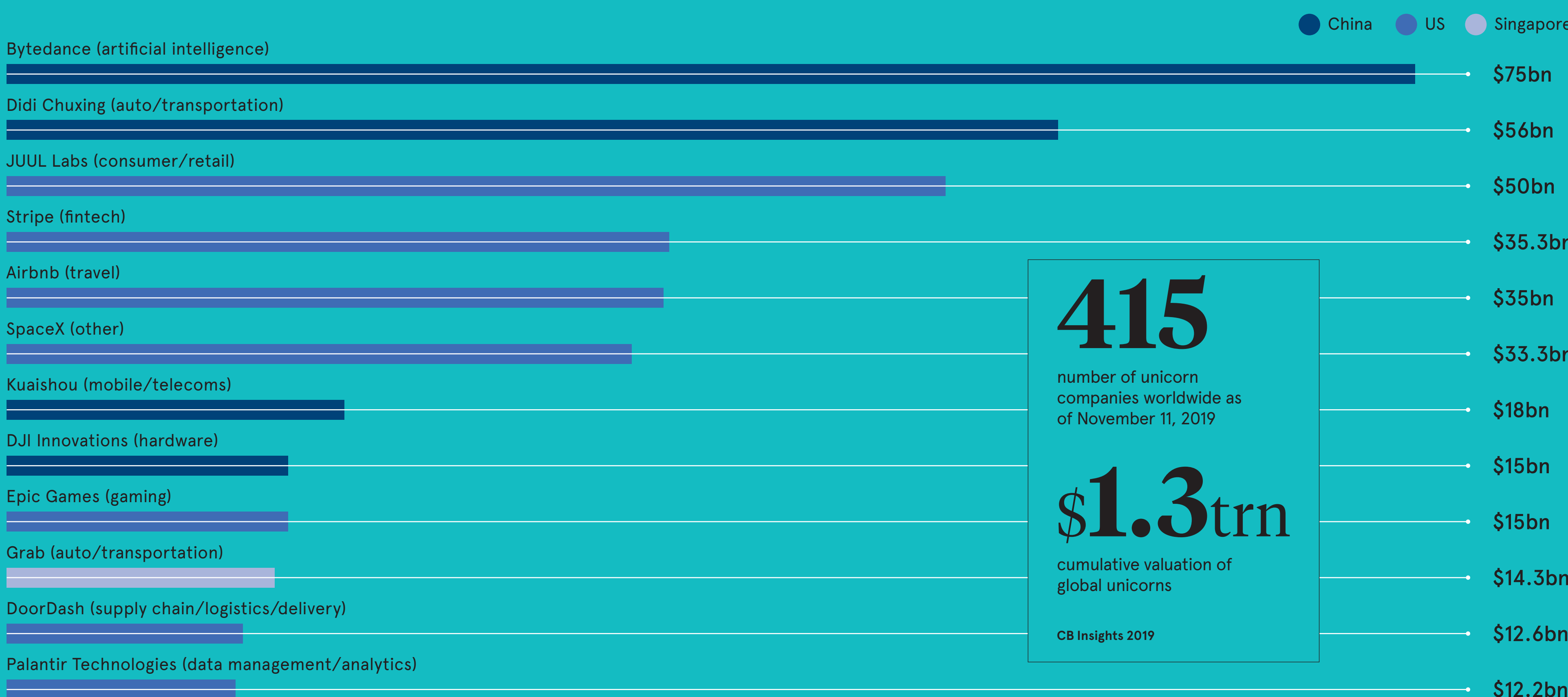
Location of the 415 unicorn companies worldwide

CB Insights 2019

12 LARGEST UNICORNS

Value based on the latest available data

CB Insights 2019



415

number of unicorn companies worldwide as of November 11, 2019

$1.3trn

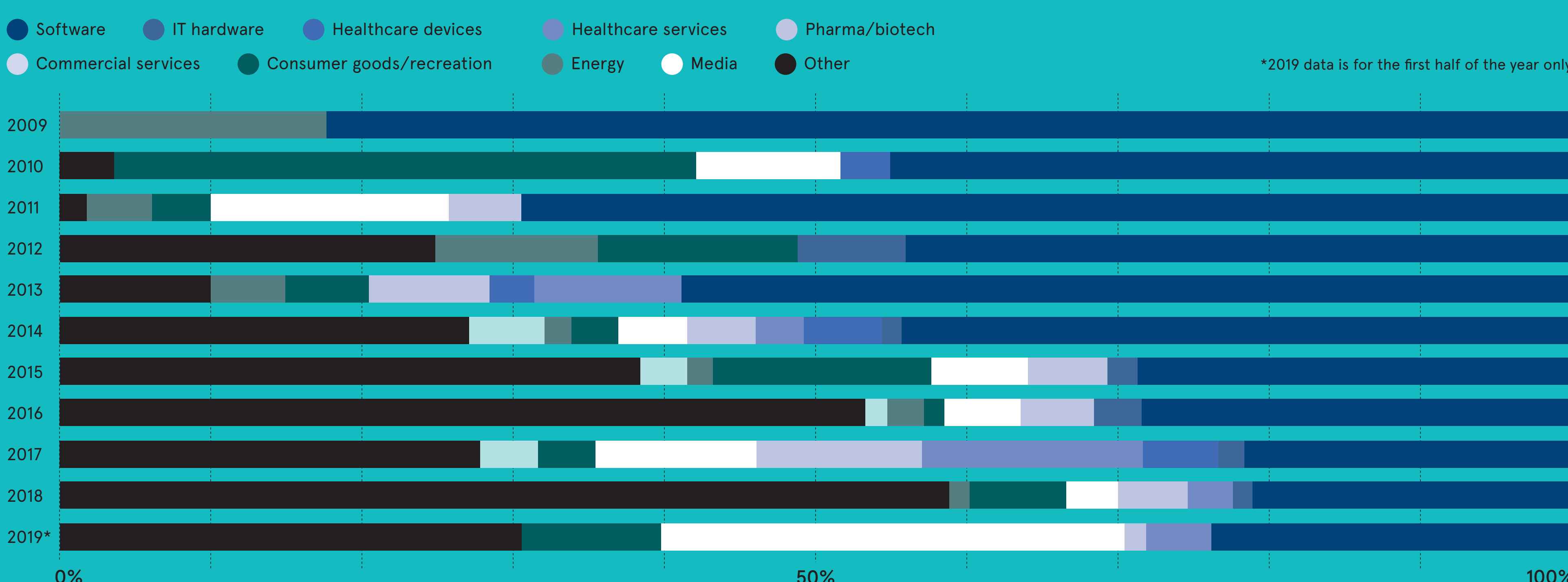
cumulative valuation of global unicorns

CB Insights 2019

SECTORS THAT RECEIVE THE MOST FUNDING

Share of venture capital deals for unicorns by subsector; US deals only for representative example

PitchBook 2019



Commercial feature

Startup's guide to successful acceleration in an innovation-obsessed world

Les Elby, partner at Lighthouse Advisory Partners, shares top tips on M&A with startup entrepreneurs

5.8m
small businesses (with 0 to 49 employees) in the UK at the start of 2019, equal to 99.3 per cent of the total business population

200k
increase in the number of private sector businesses in 2019

16.6m
people are employed by SMEs

£2.2trn
total turnover of all SMEs

Perhaps the greatest challenge for anyone starting their own company is to be an expert multi-tasker. You have to consider the market and the external pressures that will shape your chances of business success. But you also have to keep a close eye on internal resources and how you'll best deploy them.

Amid all this though, we firmly believe that founders should never underestimate the benefit of a solid exit plan, regardless of what such a plan might look like.

For some, an exit plan will set a concrete time limit for when a company will be sold, a hard deadline of five or ten years, for example. For others, the exit plan may be much vaguer or might include never being sold at all. Having a particular valuation goal in mind might provide focus and prevent management from becoming distracted by early opportunistic offers.

Reaching true potential

Even a cursory flick through the recent history books of capital markets will show that exit paths for all startups can be peppered with potholes and strewn with hurdles.

A visionary founder might have admirable ambitions for a quick expansion followed by a sale or listing, but a whole array of high-profile examples over the past months have proved this couldn't be further from the norm.

Big name mergers and acquisitions (M&A) success stories tend to get more airtime than tales of regular deals, so it's important to understand headlines have the potential of creating overly optimistic valuations.

I've worked in the industry for well over 15 years. I've seen brokers push companies to sell even though they're not ready, just so they can cash in a retainer and success fee. Many never even consider what it would take to get their client the best possible valuation. Founders risk wasting time and energy on an unsuccessful exit process or selling their company at a price that is far lower than they could have achieved.

At Lighthouse we work on our brand being linked to our domain knowledge as well as successful deals, which create maximum value for our clients. As a result, and perhaps counter-intuitively, we will advise our clients to delay an exit if we think the timing is not perfect and they would maximise their valuation at a later date. As a consequence, we typically see our clients significantly grow their valuations.

> "We typically see our clients significantly grow their valuations

Navigating rocky markets

The market may well be on the brink of an inflection point and agility will be key to navigating whatever lies ahead. At Lighthouse, we fundamentally believe that success is linked to three distinct qualities.

First, is a clear and comprehensive commercial plan. With deep-pocketed investors, who are eager to get their hands on any asset that will provide a return, it can be easy for valuations to become inflated, even bubble-like.

Taking into account that the metrics for an exit are different to those of growth-focused startups, we take a traditional approach when it comes to assessing the financials of a firm. If the company has yet to generate a profit, we work with it to develop a plan under which it can demonstrate the path to profitability to potential buyers.

We help our clients to generate realistic forecasts and we can help them to develop the firepower to weather the storms that are likely to come their way. Financials are certainly not everything, but they are the bedrock of a solid company.

Next is technology. As we gradually come to terms with what's become known as the fourth industrial revolution, staying ahead of the curve is paramount for any tech company that wants to matter in the long run. However, innovation should be focused on a demonstrable market requirement, rather than an interesting challenge. A focus on innovation that solves a market need is something that cannot be compromised.

And finally, it's people. We've come across dozens of companies with great commercial value and truly game-changing technology, but if management focus is lacking then success will never be guaranteed. Founders who run companies must have the ability themselves or within their team to turn their hand to a plethora of different types of challenges. They must be able to recognise risks and opportunities, and have a head for numbers, but also be people focused to the core.

We know there are scores of promising startups out there in the world of tech. We're particularly excited about those shaking up the healthcare sector with artificial intelligence-led solutions, helping with early diagnosis and prevention. We also have a keen eye on tech opportunities in the financial services and education sectors. Learning and development is a huge and underexplored market that has the potential to benefit cash-starved schools, and thrive with digital innovation and interconnectivity.

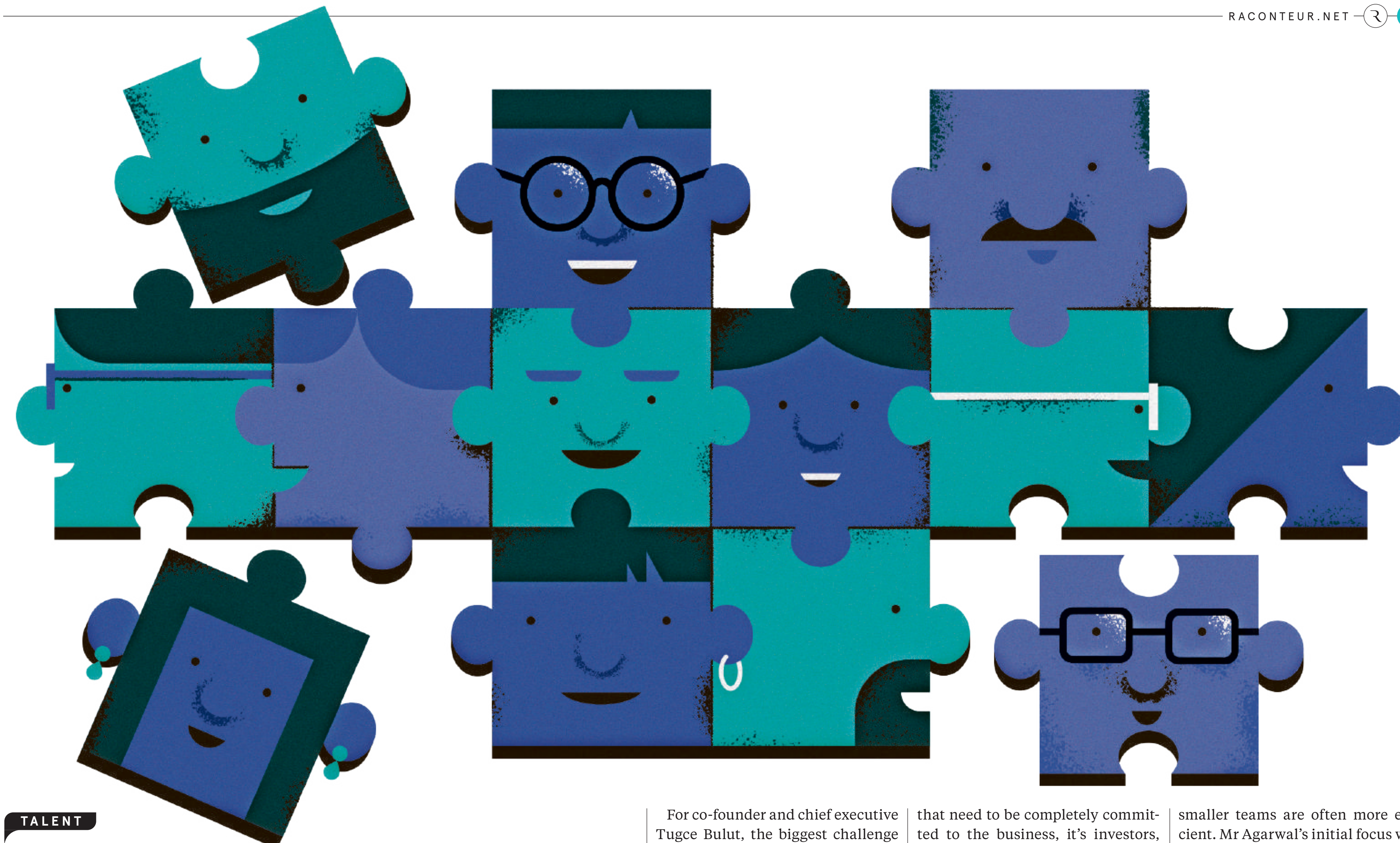
But regardless of the sector, the businesses that will truly shine will be those that prioritise the following three components: commercial soundness, technological excellence and a versatile management team that can turn its hand to any challenge.

As an M&A advisory firm in the tech sector, we're excited by the next decade. We remain deeply conscious of how important it will be for founders to pay close attention to the fundamentals, to stay agile at all times and not to be distracted by the hype cycle.

In his 2007 letter to Berkshire Hathaway shareholders, veteran financier Warren Buffet noted: "You only learn who has been swimming naked when the tide goes out." Similarities are certainly starting to emerge between the market then and the market now. We're trying hard to identify the companies that have been hiding something behind the waves of overly optimistic cash sloshing around the market. An ebbing tide will even the playing field and expose where true value lies. It may be a little uncomfortable at first, but in the long run it will definitely be worth it.

For more information please visit www.lighthouse-advisory.co.uk

Lighthouse Advisory Partners



TALENT

People problems: growing from startup to scaleup

Recruiting, nurturing and retaining key people is one of the biggest challenges as tech companies experience rapid growth

Karam Filfilan

Remember back in the carefree days of 2011 when then-prime minister David Cameron launched Startup Britain, promising £1,500 in benefits for every startup company and calling for "an enterprise-led recovery, led by business, for business"?

A lot has changed since then, both for business and Mr Cameron, but what isn't in doubt is the UK's entrepreneurial spirit. Since 2011, the number of startups inaugurated in the UK has grown year on year, culminating in a record high of 669,855 in 2018, according to the Office for National Statistics. However, of these, 20 per cent will fail in the first year and many more will never exceed an employee headcount of ten. So how do you scale a startup?

A scaleup is defined as a business which has achieved growth of at least 20 per cent over three years with a minimum of ten employees, according to the Organisation for Economic Co-operation and Development.

One startup that is successfully scaling is marketing research app Streetbees. Founded in 2015, Streetbees raised $12 million in series-A funding in 2018 and has a team of more than 100 people operating out of offices in London, Lisbon, New York and remotely. Positioning itself as a global intelligence platform, Streetbees is disrupting traditional marketing research by enabling brands to access insights from its one million users located across 150 countries.

For co-founder and chief executive Tugce Bulut, the biggest challenge of how to scale a startup is finding the right talent. "When we first launched Streetbees, we didn't have the technical expertise to get our vision off the ground, so we worked with external developers to get us there," she says.

"The difficulty comes when you try to bring that team in-house; we actually ended up losing a lot of our original coding. The key is to test and learn. Outsource functions to validate what works for your business. As soon as you establish a good return on investment on that function, hire internally and avoid upscaling outsourced functions, as you limit your control over both the culture and outputs."

To scale a startup, Ms Bulut advises founders to learn and network with other successful startups, learning from their experiences to avoid common mistakes. She cites the influence of Streetbees shareholder Taavet Hinrikus, founder of TransferWise, and board member Omid Astari, chief operating officer of Citymapper, as vital, but highlights the need to find the right advisers.

"If someone doesn't fully believe in your vision and are only interested from a financial perspective, it's unlikely to be a successful relationship. It's not just internal hires that need to be completely committed to the business, it's investors, advisers and everyone involved," she adds.

> It's not just internal hires that need to be completely committed to the business, it's investors, advisers and everyone involved

Another challenge facing tech founders as they transition from startup to scaleup is maintaining the vision and culture that brought them early success. Even the very biggest of scaleups struggle with this, as seen by the revelations around alleged unpaid work and high-staff turnover at fintech unicorn Revolut and Uber's ongoing cost-cutting measures, which culminated in 800 redundancies between July and September.

"In the past, we grew our teams rapidly and in a decentralised way. This made sense as we worked to scale the business globally and find product market fit. But at a certain point, bigger teams do not mean better results," wrote Uber chief executive Dara Khosrowshahi in a leaked email to employees.

Getting the pace of hiring talent right is a challenge for many scaleups, particularly when it comes to previously outsourced departments such as human resources or customer service. So when should you bring talent in-house?

"The benefit of being a startup is that things can change very quickly. A problem can rear its head and you can be agile and hire at speed to address it," says Tom McGillycuddy, co-founder at impact investing app tickr, which launched in January and already employs fourteen people, having started out with three.

"Trying to act preventatively can result in hiring too many people too quickly, which is more of an issue in my view."

Tushar Agarwal, chief executive and co-founder of property tech startup HubbleHQ, agrees that smaller teams are often more efficient. Mr Agarwal's initial focus was on hiring so-called "T-shaped" talent: ambitious generalists who can work across projects, despite having a particular specialism.

"At an early stage, you only have a vague sense of the skillsets that will be useful for your business. Enthusiasm beats talent nearly all the time, as those people are adaptable enough to change direction quickly," he says.

Scaling at HubbleHQ, which founded in 2014 and now employs 54 people, has also been about flexibility in culture, allowing it to develop from the founders' vision into a set of values defined by its employees. This "letting go" can be challenging for founders, Mr Agarwal concedes.

"One of the key practical challenges facing scaleups is how to deal with headcount doubling every year. All the processes in your company break, communication becomes much harder and you need to figure out middle-management layers that never existed before," he says.

"I agree with Graze CEO Anthony Fletcher, who recently said 'I'm convinced the toughest thing is scaling your business. Every business book you see is written on how you startup, but hardly any on how you scale'."

This is a missed opportunity for our economy. A Treasury report from 2017 found that just one in ten UK startups receive seed funding to go on to later-stage investment compared with 25 per cent of US firms. Also, a 2014 report by the Scaleup Institute estimated a 1 per cent increase in the number of scaleups businesses could create an additional 150,000 jobs and add £225 billion to the UK economy. Supporting scaleups to invest in the talent needed to grow is vital.

Alexander Tsang on Unsplash

MARKETING

Why poor marketing is holding you back

A great product means nothing if you're not reaching the right people, but knowing where to start when marketing a small startup can be a daunting task

Oliver Pickup

Marketing for tech startups is critical to their short and long-term success, but with a mushrooming number of communications channels to choose from, it is tricky to know which ones to pick.

Poor marketing is one of the main reasons for startups failing, according to 2018 research by CB Insights, a New York-based organisation that empowers business leaders through data analysis. Predictably, a lack of market demand is top of the list (42 per cent), followed by running out of money (29 per cent), but under-par marketing figures at 14 per cent.

Matthew Stibbe, chief executive of London-based Articulate Marketing, stresses the importance of marketing for tech startups. "Companies never triumph if they don't get the word out to potential customers," he says. "By analogy, you can't have a successful restaurant if you turn off the lights and lock the door."

However, when it comes to marketing for tech startups, it is vital not to overpromise. Mr Stibbe points to the fraudulent portrayal of Fyre Festival, a "luxury" event which failed to deliver and was created with the intent of promoting the company's app for booking music talent.

In his experience, the two biggest mistakes tech startups can make are "not spending anything and assuming 'if I build it they will come' and thinking that a DIY approach will be enough".

"Just because you're a technical genius, a heroic leader or a sales guru doesn't necessarily mean you're also a marketing expert or that it's a good use of your time to become one," he says.

Marta Krupinska, head of Google for Startups UK, says marketing for tech startups needn't break the bank. "Understanding where to begin with digital marketing can be the first major hurdle for tech startups, and it's on the founders to develop their skills and knowledge," she says. "You don't need to spend thousands of pounds learning the ropes, though, or refining your strategy."

Mr Stibbe agrees. "Entrepreneurs don't need to spend big to build effective marketing strategies," he says. "There are circumstances where you literally can't spend any money on marketing even if you wanted to. In these cases, the secret lies in targeting. If you can exactly define who is going to buy your product, for example using personas, you can target them more effectively."

This chimes with Emma Thwaites, founder and chief executive of Thwaites Communications, headquartered in London's Shoreditch. "Targeted engagement with your key audiences in an online discussion can be a highly effective means of disseminating information and opening a dialogue with future potential customers," she says, arguing that digital marketing is superior.

"Traditional marketing routes are passive, where people receive news, whereas social media is active, a space where people can react and be involved in the conversation."

Ms Thwaites underlines the importance of firming up brand messaging and references Simon Sinek's 2009 *TED Talks* presentation, *Start With Why*, which highlights why Apple has managed to eclipse rivals.

She insists that data-driven marketing for tech startups is best provided by external agencies, who have tips on how to present key messages. "We advise tech startups working with data to invest in creating strong visuals to illustrate business and human interest stories," she says. "Simple but clever data visualisations show thought leadership, as well as bringing startup services to life for the media and customers."

However, if tech startups have no budget for marketing, what can they do? Ms Krupinska encourages entrepreneurs to take advantage of free mobile applications, such as Google Primer. "These allow them to choose from a variety of business and digital marketing topics and receive free online lessons relevant to their companies and careers," she says.

> "Just because you're a technical genius, a heroic leader or a sales guru, it doesn't mean you know marketing

"Once you're on your way, tools like Google Trends use real-time data to help marketers gauge consumer search behaviours over time based on Google Search traffic."

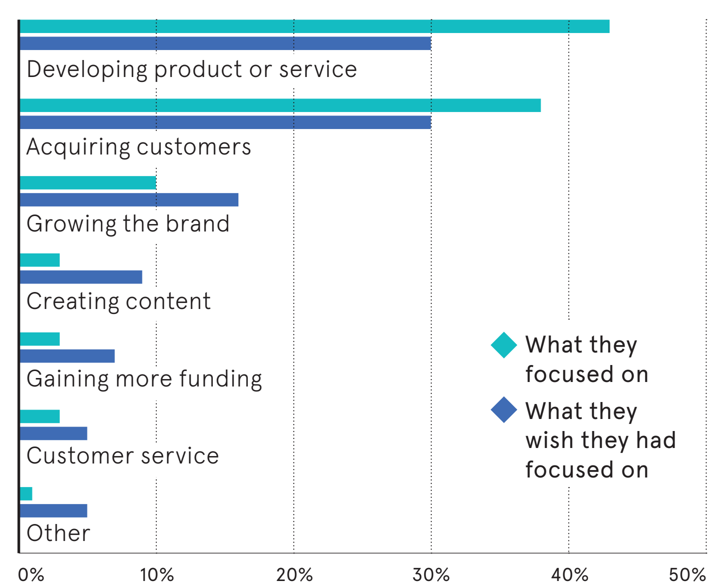
Subjects including seasonality, related terms and regionality of interest can be leveraged to gain valuable information on "what, when and where business opportunities are happening, and come at zero cost", she adds.

Other cheap, but effective, marketing ploys include rewarding early adopters and refer-a-friend schemes, says Ms Krupinska. "They incentivise your users to get value out of inviting their friends to use your service. It's also great to make your product feel exclusive.

"What does not work, and I've seen it too many times, is spamming customers and abusing their trust and their data. Don't email me 100 times to get me to buy your product. It will only make me want to buy from you less." Tech entrepreneurs, you have been warned.

STARTUP PRIORITIES

What startups spent the most time focusing on in the past year, and what they wish they had focused on



HubSpot 2019

Commercial feature

OPINION

‘The innovation ecosystem has a moral imperative to inspire and empower businesses that can have a positive impact on humanity’

The world’s innovation ecosystem is severely out of alignment. To see what I mean, look no further than SoftBank’s $100-billion Vision Fund, the largest venture capital fund in history.

This fund, which the markets have admired, numerous firms have emulated and countless startups have dreamt of raising money from, has a pretty simple strategy. It is to funnel enormous sums of capital into a small number of startups with the precondition that they spend brazenly to achieve the fastest growth of any company in their industry.

The goal of this strategy, of course, is not to increase innovation or develop powerful new technologies, but rather to sell the next round of investors on an impressive growth rate, thereby increasing the company valuation and making the existing investors richer. Rinse, wash, repeat.

SoftBank chairman and chief executive Masayoshi Son didn’t come up with this strategy (it has been a venture capital staple for years), but the sheer amount of capital he invests has revealed how startup “hypergrowth” can create all sorts of social problems, as we saw with Uber, and even threaten global markets through its excess, like WeWork.

Nevertheless, our global startup innovation ecosystem has aligned itself around this “hypergrowth equals valuation mark-up” strategy, technological innovation and profits be damned. The worst part? Fledgling entrepreneurs that need to raise capital have no choice but to hop on the bandwagon.

Meanwhile, our cities are flooding. Economies are crashing. People are rioting. Inequality is rampant. The world is seemingly on fire, both literally and figuratively.

There is no shortage of problems facing humanity, but there is a shortage of ambitious entrepreneurs trying to solve them. As the world becomes more connected and technology infiltrates the very fabric of our society, there has never been a better time for tech entrepreneurs to make a huge impact.

The innovation ecosystem, which includes startup investors, institutions, accelerators, advisers, policymakers and the like, has a moral imperative to inspire and empower businesses that can have a positive impact on humanity. We need to start funding and supporting more entrepreneurs building solution to big problems such as poverty, affordable healthcare, sustainable energy, inequality, climate change and other United Nations Sustainable Development Goals.

Also, I’m not suggesting we all become philanthropists overnight. Impact does not equate to charity.

Take a look around you. The workforce genuinely wants to work on things that matter and join companies with a benevolent mission. Consumers want to read about companies doing good in the world, purchase products from companies that care and spread the word about companies which align with their values. This is especially true of millennials and they just recently became the largest adult population in the United States, representing almost two fifths of the workforce. That’s a lot of purchasing power and talent.

In short, building an impactful company is not just good for humanity, it is good for business.

We need to stop taking impact startups less seriously just because ruthless growth and profit is not at their core. With access to the right expertise and support, impact startups can, and should, create economic opportunity that is unrivalled.

If we can realign the innovation ecosystem around building companies with a positive impact, then we can realistically hit all the UN Sustainable Development Goals by 2030.

I’m certainly not innocent in the current misalignment of the innovation ecosystem. We have all been complicit in building and reinforcing the current structure. I know the Founder Institute can do more to inspire and empower entrepreneurs building impactful businesses, and we will. I hope others will follow.

Adeo Ressi
Chief executive
Founder Institute

Björn Olin, mediabank.visitstockholm.com

Step inside the unicorn factory

You may think Europe’s biggest producer of unicorn companies per capita is London or Berlin, but it is actually the much more modestly sized city of Stockholm. Known as the “unicorn factory”, the Swedish capital is attracting tech entrepreneurs in their droves

Stockholm has one of the fastest-growing tech startup scenes in the world. Home to more billion-dollar firms per capita than any region outside Silicon Valley, the city has earned its crown as the European unicorn factory by churning out a long line of tech behemoths.

Among those unicorns that have benefited from basing themselves in Stockholm are household names such as Spotify and Skype, as well as *Minecraft* creator Mojang and King, the company behind *Candy Crush Saga*. Stockholm also has a lively fintech scene, having produced financial services disruptors such as Klarna and iZettle.

Stockholm’s tech scene attracts talent from all over the globe and it’s not uncommon for a company to have employees from between 20 and 60 countries. Walking into the office of a Stockholm tech company, the language you are most likely to hear is English.

“There are many reasons why Stockholm is breeding so many unicorns,” says Anna Gissler, chief executive at Invest Stockholm, the city’s investment promotion agency. “Swedes are early adopters of technology and our progressive values drive creativity and openness to new ideas, which startups strive for. Sweden’s flat hierarchies allow people to be open minded; they know they’ll be listened to. That’s how disruptive ideas surface.”

Sweden makes it very simple to set up a company in as little as a week, depending on the structure required, with all information easily accessible online. Meanwhile, its social security system gives entrepreneurs the courage to take risks and dare to be creative. If they fail, the system will help them get back on their feet.

Stockholm’s culture is highly attractive to tech startups and entrepreneurs. All the hallmarks of a strong startup ecosystem are there, including frequent events, good access to innovation grants and investors, and plenty of startup hubs, incubators and accelerators. As a small city, it is also quick and easy to connect with the right people.

However, what really makes Stockholm unique is its strong ethos of sharing, with a first generation of successful entrepreneurs now keen to inspire and invest in the next generation. Anyone can easily find out what’s going on through the #sthlmtech hashtag.

“Global talent often say they came to Stockholm for the tech scene, but stayed for the Swedish values,” says Ms Gissler. “The workplace equality and diversity, and people’s drive and passion for what they do, while maintaining a work-life balance, impress our new citizens. We place a strong trust in each other to get work done, while living flexibly and valuing time with family and friends. You can live your best life in Stockholm.”

Tech startups in Stockholm have access to two of the most important factors needed to reach the coveted unicorn status: talent and capital. With innovation advancing at a rapid pace, it’s crucial businesses are able to attract the best talent and Stockholm consistently scores highly in talent attraction indices. Talent attracts talent, which in turn attracts investors. And startups are likely to be “born global”, with a strategy to scale and reach a global market from day one, which is often characteristic of future unicorns.

“We also see a growing number of entrepreneurs passionate about solving some of our time’s most pressing challenges,” Ms Gissler adds. “Already one of the best breeding grounds for unicorns, Stockholm is on its way to becoming an equally fertile ground for impact unicorns that leverage technology and entrepreneurship to solve societal and environmental problems. If you’re looking for a place where you can have a bigger impact on the world, Stockholm is the city that will help accelerate your tech startup.”

If you’re looking for a place where you can have a bigger impact on the world, Stockholm is the city that will help accelerate your tech startup

For more information please visit investstockholm.com

Stockholm
The Capital of Scandinavia

LOCATIONS

What makes a great tech startup hub?

From low rents and close access to universities, to good transport links and government support, there are a number of key reasons why certain cities are the best incubators for tech talent

Rich McEachran

1 Close connections with universities

Congratulations, you've decided to start a tech business. Now the question is where to base it and operate from.

Probably the most important thing to consider when choosing a startup hub is access to bright minds to fill the jobs that will be created. For this reason, it's ideal to pick a city where there's a presence of world-class universities and internationally recognised research institutes.

Priya Lakhani, founder and chief executive of artificial intelligence-powered edtech platform Century Tech, says what makes London one of the better startup hubs for a base is you're at the centre of some of the best institutions and people around, not just graduates, but academics, engineers and more.

The impact this can have can send ripples through your business and beyond the recruitment process. "Being able to work closely with academics ensures we grow in a research and evidence-led way," says Ms Lakhani.

2 Creative and low-cost lifestyle

A big draw for graduates looking for work is the lifestyle on offer. It may often be a dealbreaker when they decide whether to stay in the city where they studied or move elsewhere.

Daniel Nathrath, chief executive and co-founder of Ada Health, says Berlin is the perfect city for his company, which is behind the symptom checker smartphone app Ada and has been in business since 2011. This is thanks largely to Berlin's creative culture and relatively low cost of living compared with other major international cities

Startup hubs that can offer this have a wider pool of talent to hire from, which means you can access high-quality skills from across a range of disciplines, he adds.

Described in 2003 as "poor but sexy" by the then-mayor of the city, Berlin is now vying with other European cities to become the Silicon Valley of Europe. "It's been fantastic to see the city's tech scene grow and flourish over the last eight years," says Mr Nathrath.

Lower wages, leaner operations

Once your startup is experiencing significant growth, you might decide to open offices in other locations. Insurtech startup Kasko is headquartered in London and has expanded to Germany, Singapore and Latvia since it was founded in 2015.

According to co-founder and chief technology officer Matt Wardle, choosing Latvia was a no-brainer. He had previously managed development teams there for Accenture and was aware "it's a highly educated country with hard-working people, so there's a rich talent pool of hungry candidates".

A key factor that makes Latvian capital Riga one of the up-and-coming startup hubs is the cheaper wages compared with other countries, including the UK.

"Latvian salaries are actually around 70 to 80 per cent of the UK's. And people here prefer full-time jobs over contract work, which has allowed us to grow a sustainable team of happy, loyal colleagues," says Mr Wardle. "We get to pay above the average wage while making savings elsewhere. A thirty-two-person office with all the trimmings in Riga costs the same as an office for eight in London."

Good transport links

Opening overseas offices close to your headquarter's time zone, like Kasko has done in Riga, makes operations easier, but building a remote culture can bring its own challenges.

It's for this reason that you should base yourself in a city with good transport links, road, rail and air. "Several times a year we get everyone from all our sites together to work, relax and grow. Those cheap flights become another Riga blessing," says Kasko's Mr Wardle.

The startup hubs with good transport infrastructure are likely to have a more mobile and agile ecosystem. It helps a city to be more accessible, attract talent from outside and create links with other startup hubs. This, in turn, can foster the type of entrepreneurial community that drives future innovation and makes a city appealing to investors.

Paris, for example, has the third-best public transport system in the world, according to Arcadis' Sustainable Cities Mobility Index, behind Hong Kong and Zurich. Two years ago, a disused Paris rail depot was turned into a startup incubator, Station F, backed by French tech billionaire Xavier Niel, who funded it with €250 million.

Championing startup success

A recent study by EY revealed Paris has overtaken Berlin for startup investment. Over the first half of 2018, investments in the French capital totalled €2.2 billion, compared with €2 billion in the German capital; half-year figures for 2017 were €1.4 billion and €1.6 billion respectively.

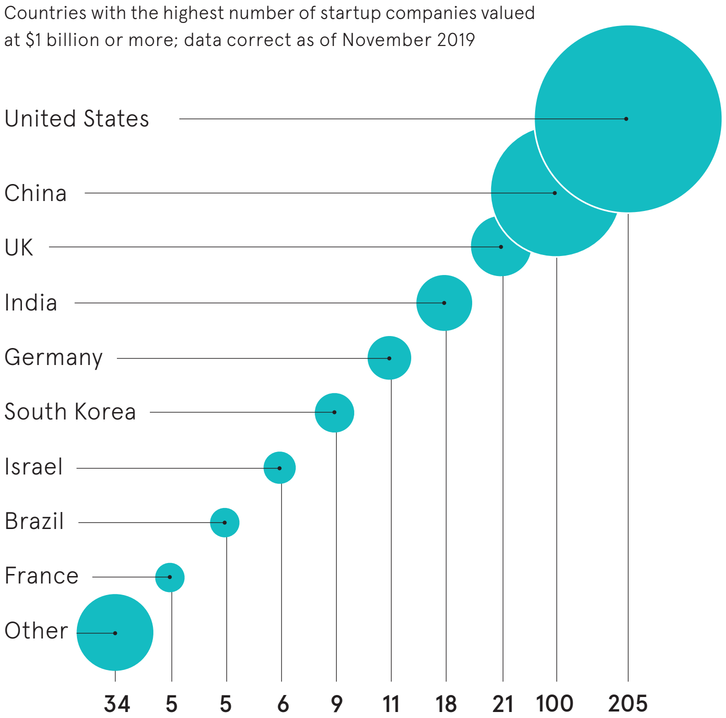
Paris's ambition to establish itself as one of the leading startup hubs in the world is being supported by the French government. In September, President Emmanuel Macron announced €5 billion of funding, pledged by private sector investors, will be poured into tech companies looking for late-stage investments over the next three years.

"The French have been very successful at promoting Paris globally. Macron has championed our tech sector, inviting global leaders to France Digitale Day [a leading tech event in Europe] and speaking at the launch of Station F," says Romain Paillard, co-founder and chief operating officer of coding bootcamp Le Wagon.

"All this has helped to build buzz and pull talent towards France's tech scene, both French nationals returning from Silicon Valley and those attracted to the innovation the city promises. Paris is gaining confidence. It's learning from Silicon Valley without slavishly copying it."

UNICORN HUBS

Countries with the highest number of startup companies valued at $1 billion or more; data correct as of November 2019



CB Insights 2019