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Corporate innovation in the entrepreneurial age

JUNE 2021

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Financial Times-backed new media site telling the untold Stories of European Tech.

EUROPEAN STARTUPS

Created by Dealroom and Sifted, and supported by the European Commission and European Parliament, European Startups is a two-year project aimed at facilitating informed conversation and collaboration among European tech ecosystem stakeholders, to take Europe's startup economy to the next level.

At the centre of the initiative is the European Startups database, a definitive platform providing macro-level trends. We also publish several research reports and organise a few events each year.

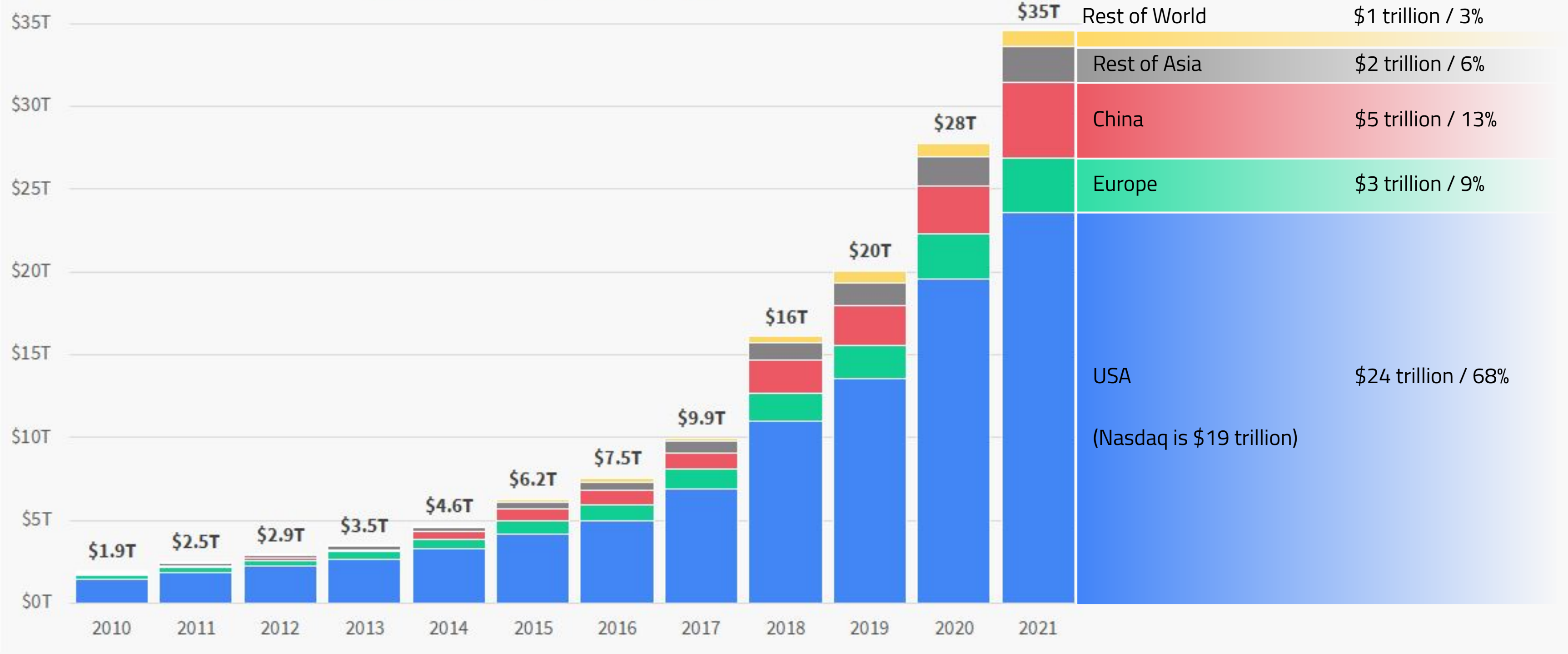
Corporate innovation in the entrepreneurial age

1. The digital economy
2. The entrepreneurial age
3. Corporate venture capital and innovation

1 The digital economy

The tech boom: tech companies globally have reached a combined value of $35 trillion, of which $24 trillion (68%) from the USA.

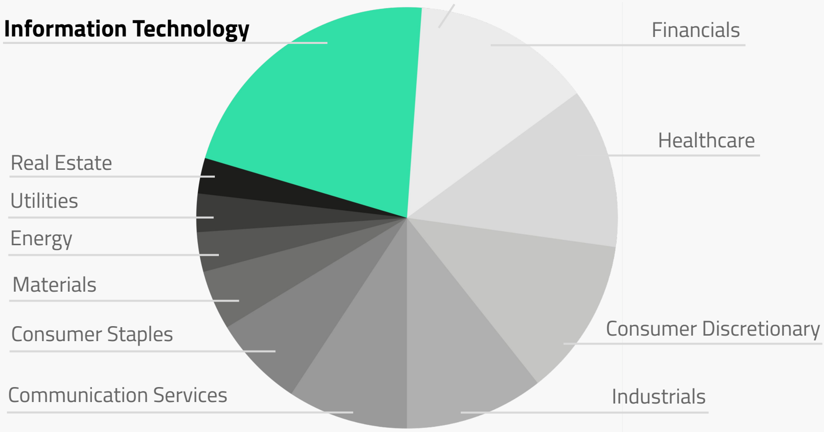
Combined enterprise value of tech companies globally



Source: Dealroom.co

Technology is eclipsing all others sectors ...

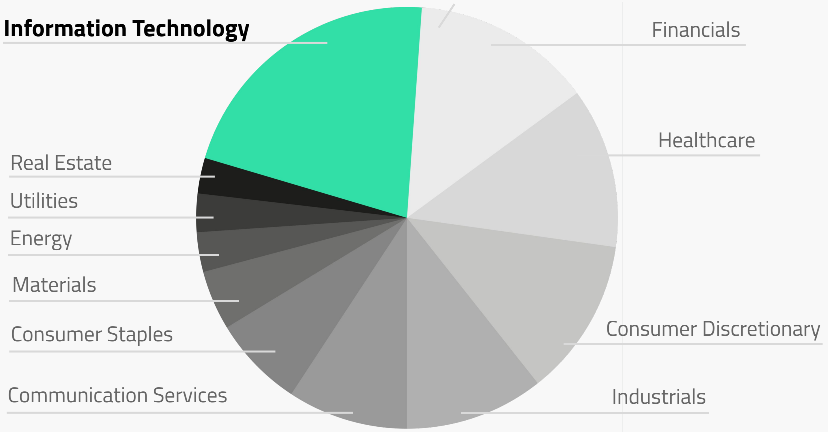
Today, technology equities are eclipsing all others ...



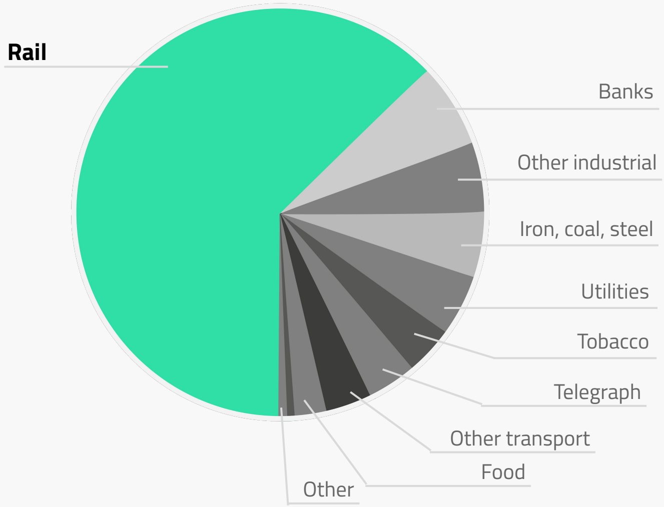
Sources: Credit Suisse Global Investment Returns report Yearbook Summary Edition 2021. USA data. Industry weightings.

But actually tech has always been there, as a major driver for business.

Today, technology equities are eclipsing all others ...

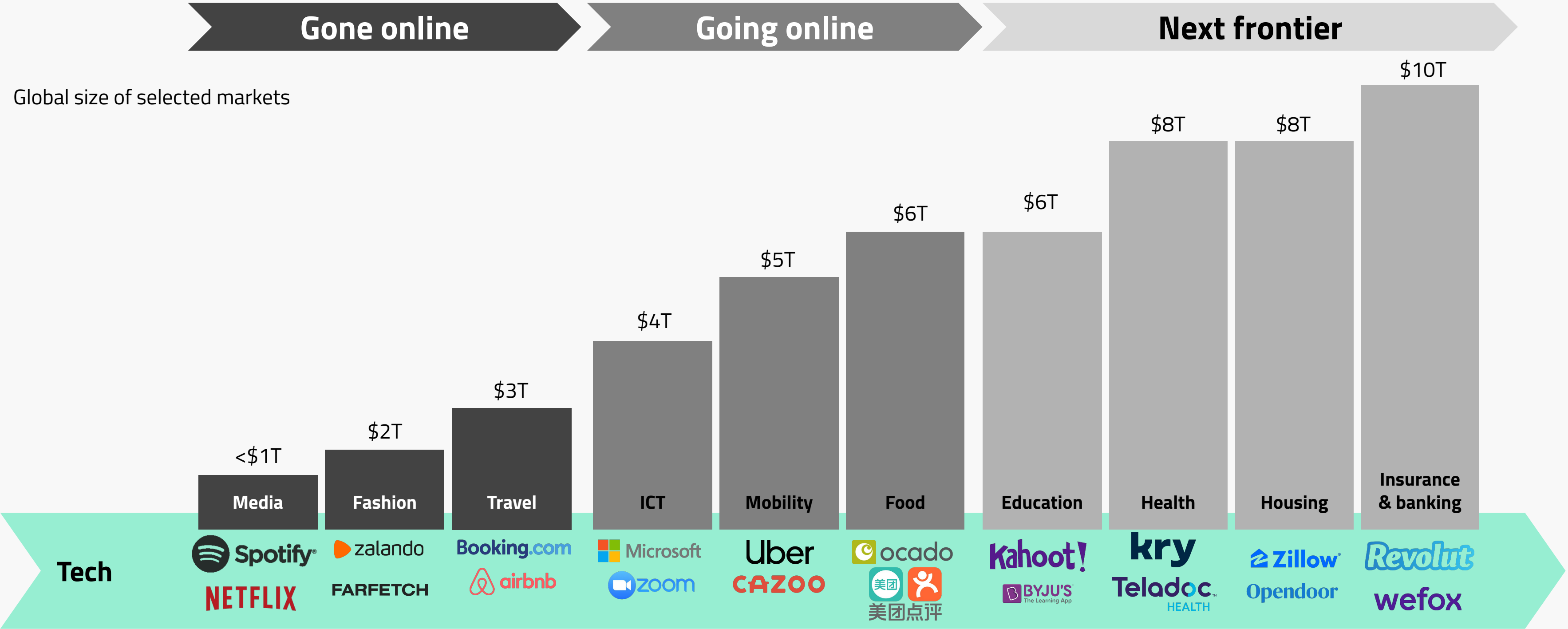


... but back in 1900 rail was the biggest sector. Later, airlines. These were also "tech".



Sources: Credit Suisse Global Investment Returns report Yearbook Summary Edition 2021. USA data. Industry weightings.

Tech is not a sector anymore. It cuts across all sectors, creating entirely new user experiences, mostly software-driven, and for increasingly bigger markets.



Sources: Dealroom estimates, Worldbank, OECD, Eurostat, McKinsey for insurance & banking via A16Z. Freelance via Upwork and McKinsey.

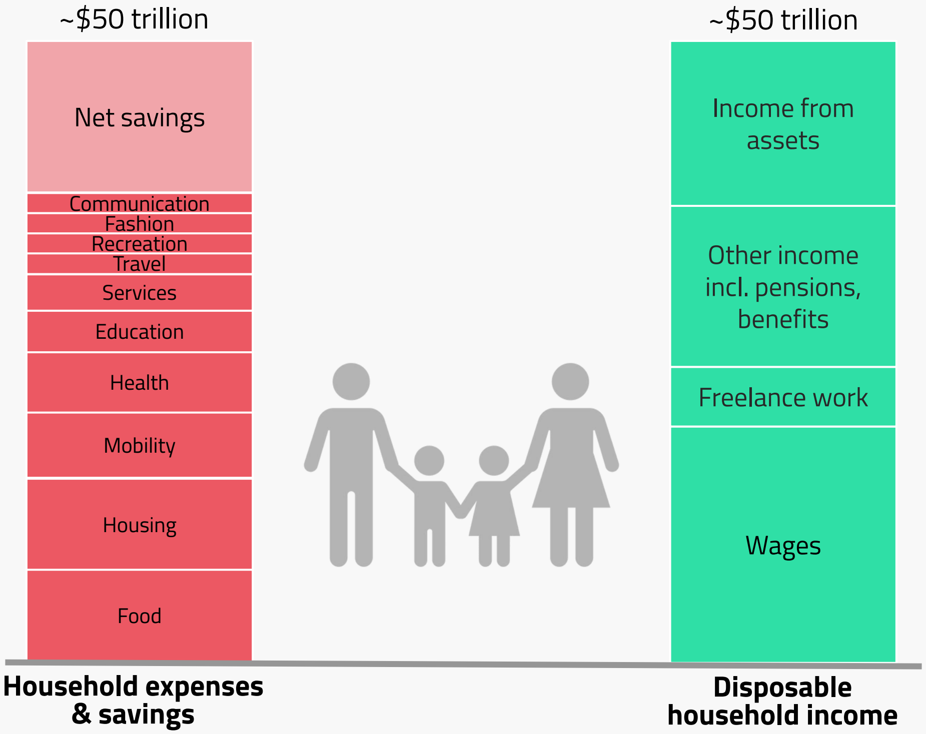
"In the past, IBM, Oracle or Microsoft sold technology to other companies, as a tool. They sold computers and software to GE, P&G and Citibank. Now there's a generation of companies that both create software and use it themselves to enter another industry, and often to change it. Uber and Airbnb don't sell software to taxi companies and hotel companies, Instacart doesn't sell software to grocery companies, and Transferwise doesn't sell software to banks.

"What happens when everything's software? .... At a certain point, everyone has grown up with this stuff, everything is a software company, and the important questions are somewhere else."

Ben Evans
Own writing on his blog
Outgrowing software

80% of adults are online. They're not only spending money online but also earning income online. This means that even work itself is open to innovation.

FARFETCH, zalando, NETFLIX, Spotify, airbnb, Booking.com, coursera, duolingo, babylon, kry, Uber, CAZOO, Opendoor, Zillow, STUDENT.COM, CASAVO, PICNIC, HELLO FRESH, instacart, Delivery Hero

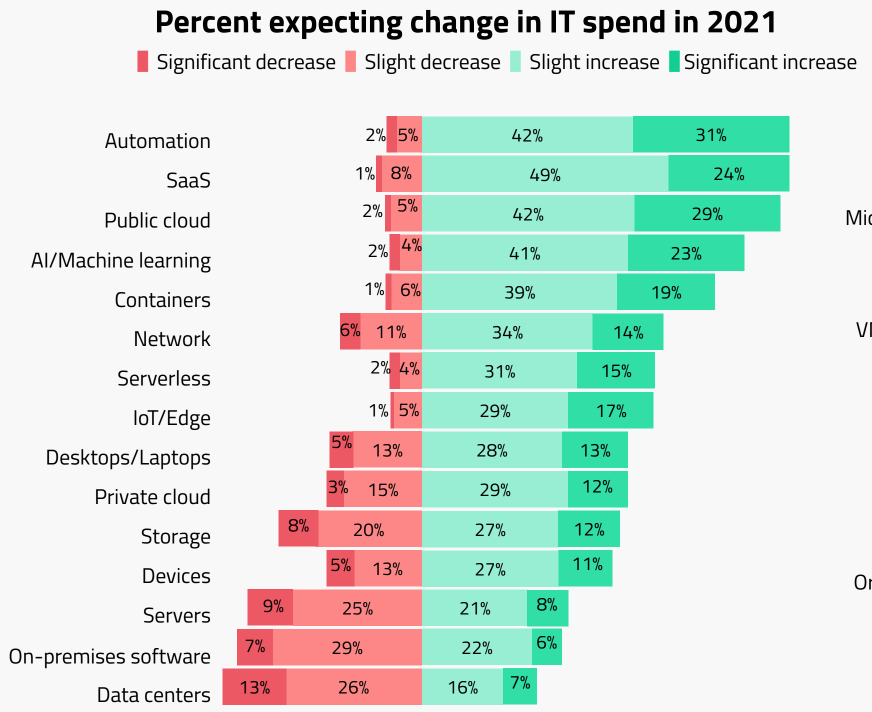


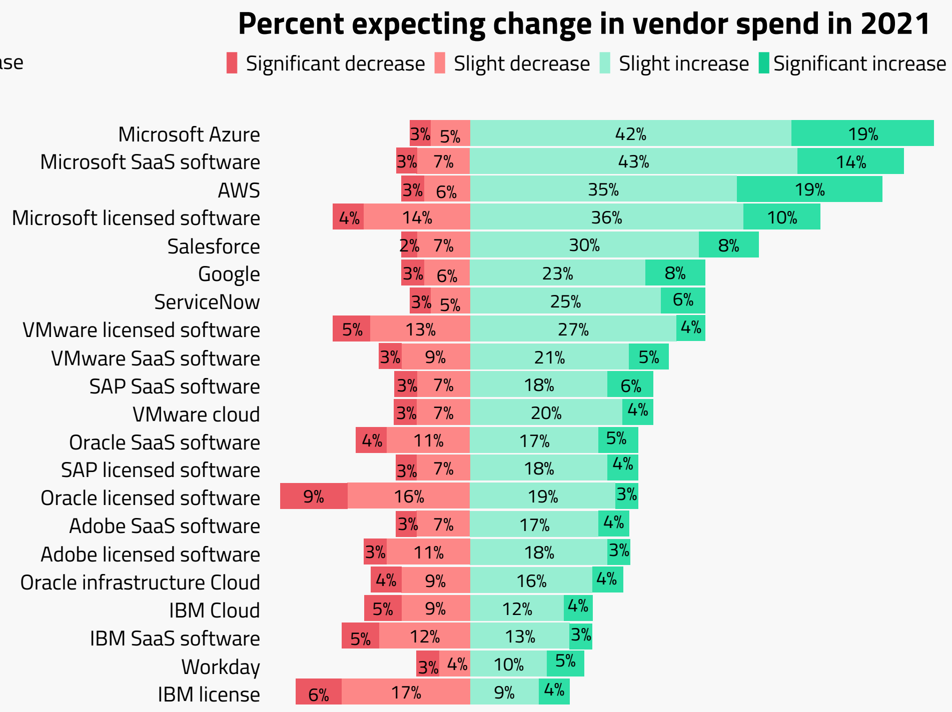
Household income is going digital too

robinhood, Revolut, BUX, N26, monzo, PensionBee, airbnb, Lambda, GIGSTER, UBER, Instawork, Helpling, upwork, depop, YouTube, substack, patreon, CoachHub, Udemy, Etsy, twitch

Source: Eurostat (EU28) and Dealroom analysis.

Corporate IT is also going online (SaaS, Cloud, Artificial Intelligence). The pandemic accelerated the shift, benefiting companies like Microsoft, Google, and Salesforce.

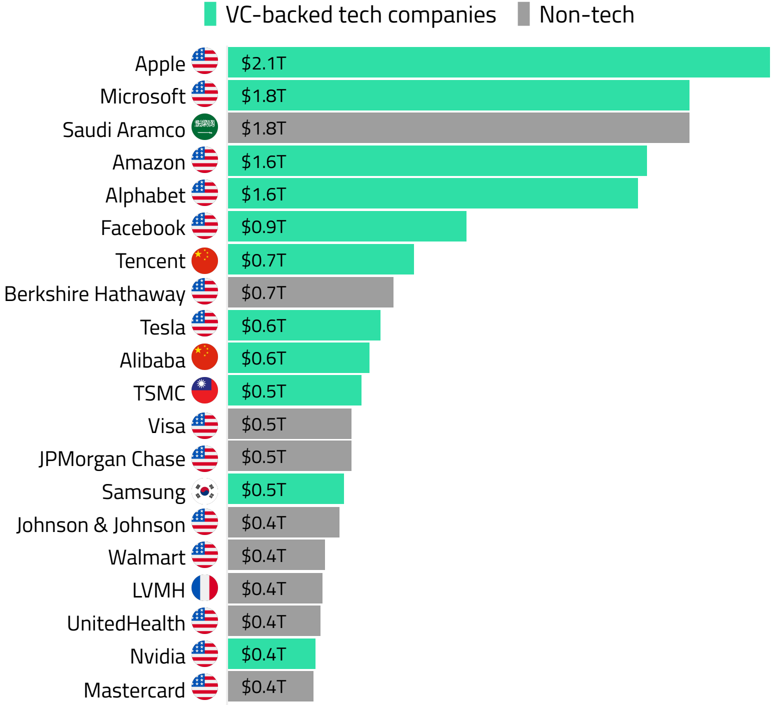




Source: Flexera 2021 State of Tech Spend Report. N=474. Roughly two-thirds in the USA and one-third in Europe.

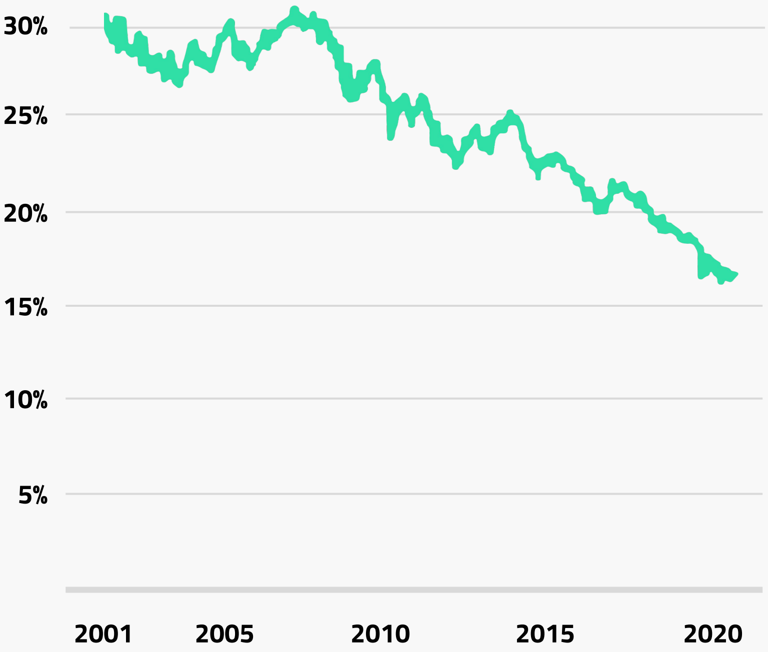
Giant tech companies are forming; mostly VC-backed tech companies from the US ...

The world's 20 most valuable companies



... while Europe's share of global equity has shrunk considerably.

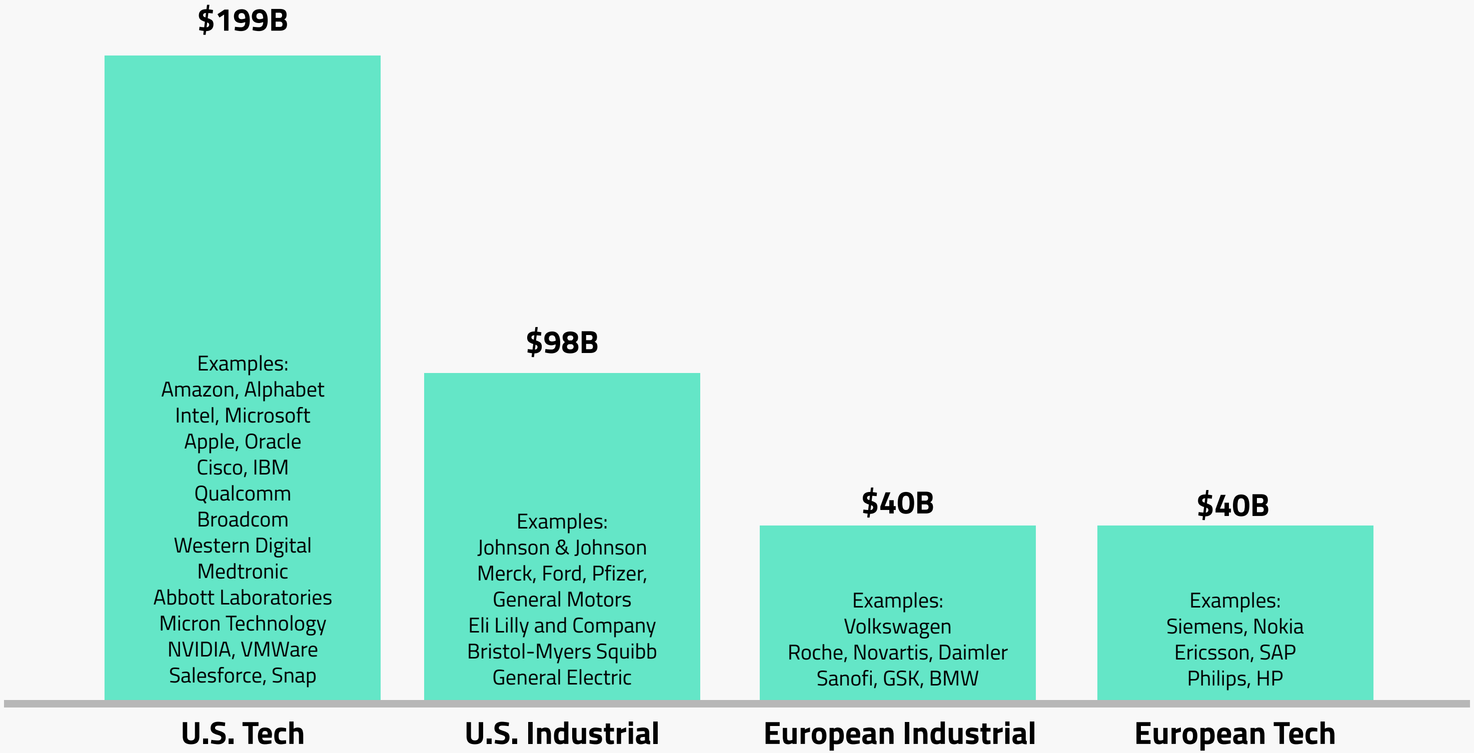
Europe's share of world equity market capitalisation (MSCI)



EuropeanStartups.co
Source: Dealroom.co and Google Finance data as of May 28, 2021.

Sources: Refinitiv, FT calculations, Bank of America Global Research

Corporate R&D spending is now dominated by Big Tech.



Source: PwC, The 2018 Global Innovation 1000 study.

Europe’s big corporate R&D budgets are concentrated around pharma, automotive and telecom. The USA dominates internet, software and electronic hardware.

Corporate R&D spend in 2018 ($ billions)	United States	EU-27	Japan	China	South Korea	United Kingdom
Internet, software, hardware (Google, Apple, FB, Amazon, Samsung)	114	9	9	15	17	1
Semiconductors (Intel, NXP)	39	5	3	1	2	0
Biotech (Celgene, Abbvie, Gilead, Amgen)	35	4	0	0	0	0
Pharma (Roche, J&J, Merck)	40	42	13	1	0	12
Automotive (Volkswagen, Toyota, Ford)	19	46	39	6	4	4
Telecom (NTT, Nokia, Eriksson)	13	16	2	3	0	1
Oil & Gas (PetroChina, Exxon, Shell)	1	3	0	3	0	0

Dominated by USA big tech. These are domains where money is spent on futuristic moonshots.

Europe has strong position in Pharma and Automotive.

Very low R&D spending. And 90% of that low spending goes to fossil fuels. Opportunity to grow?

Source: PwC.

The USA is showing us what a digital economy might look like.

70%

Artificial Intelligence experts work for Google, Facebook, Microsoft, Amazon

>50%

R&D spending done by big tech companies which were originally VC backed

$24T

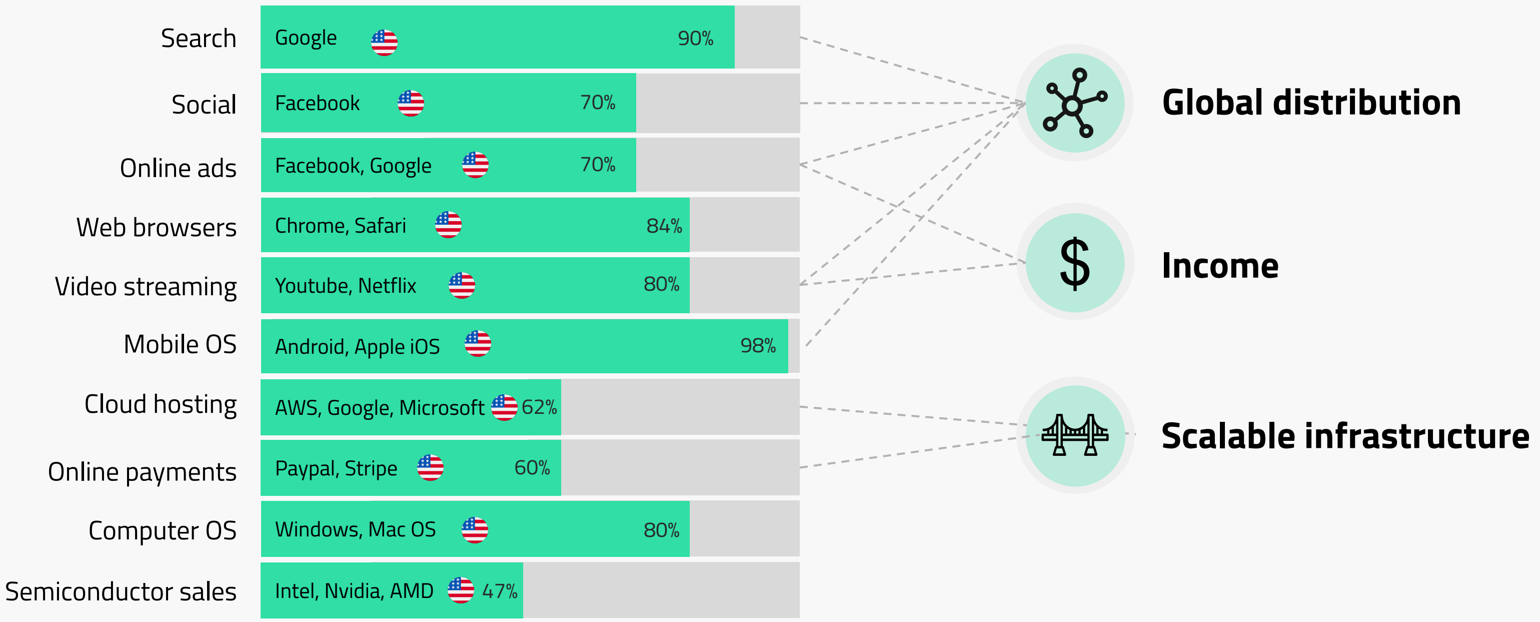
Combined valuation of all US tech companies. Nasdaq is $19 trillion, compared with $32 trillion for the entire S&P 500

27%

Share of net earnings of tech companies of S&P 500, up from 2% during the dotcom boom in 2000 (source: Heartcore.com analysis)

Yes, they're powerful companies (and mostly from the USA). But they are precisely the platforms that entrepreneurs exploit to grow their business.

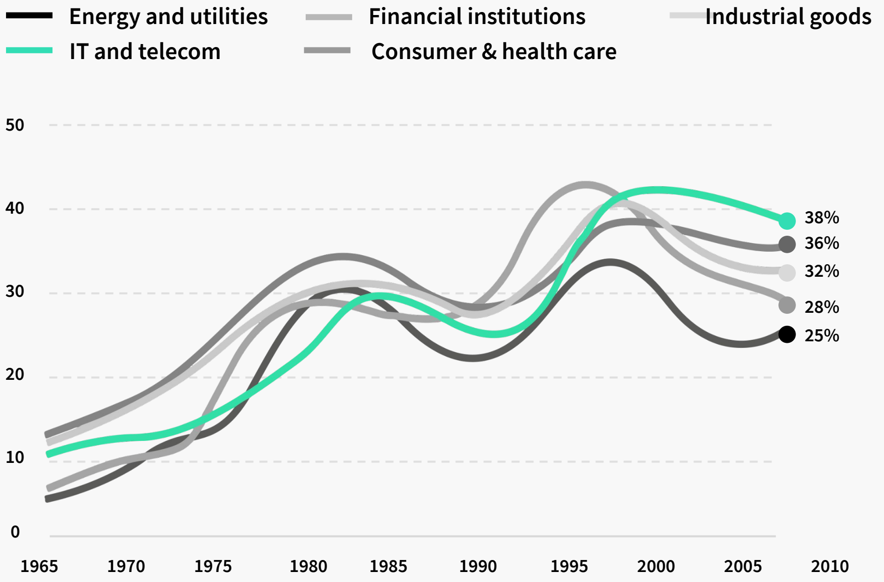
Big tech is dominating many key tech domains ... **... but they are also enablers for entrepreneurs.**



Inspired by and taking data from Benedict Evans' Jan 2020 presentation Standing on the Shoulders of Giants (using data from companies and Zenith). Additional sources from desktop research. Source for B2B: "In-depth: B2B e-Commerce 2019" by ecommercedb.com.

Concentration, yes, but not monopolies. Mortality risk of companies has increased …

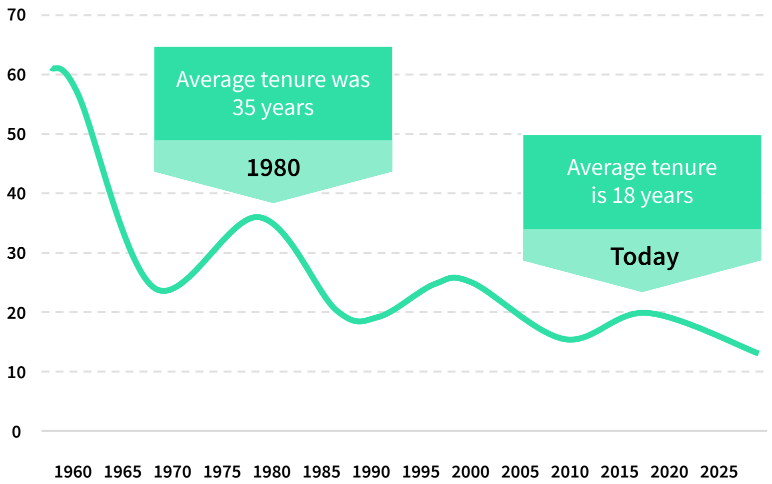
Five-Year mortality risk by sector (%)



Sources: BHI analysis; Compustat; S&P Capital IQ
Note: Based on approximately 35,000 US-listed companies; sectors assigned across time per current database allocation; sector grouping by BHI.
'Moving five-year average weighted by number of companies per sector group and year

… companies in the S&P 500 keep getting younger. Economic dynamism is up.

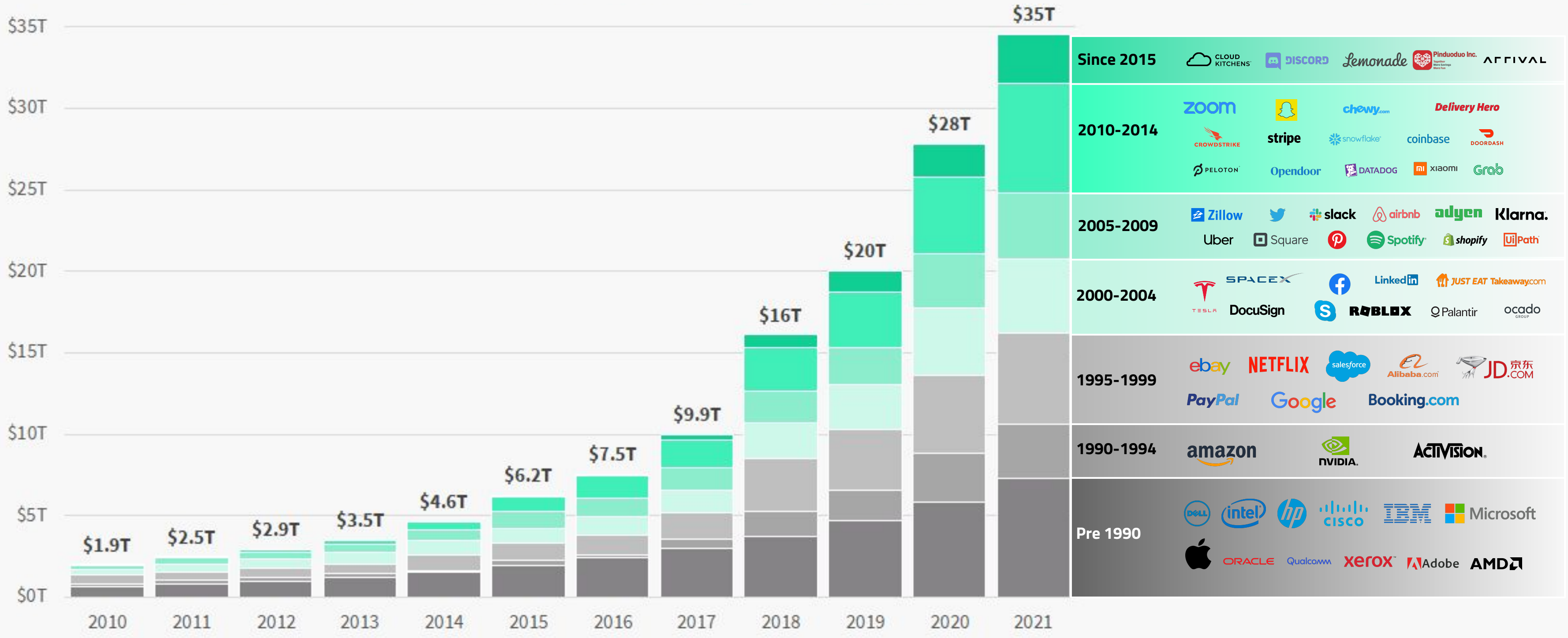
Companies in the S&P 500 keep getting younger.



2 The entrepreneurial age

The clearest sign that economic dynamism is up: younger cohorts of startups are creating just as much value as older ones – if not more.

Combined enterprise value of all tech companies globally



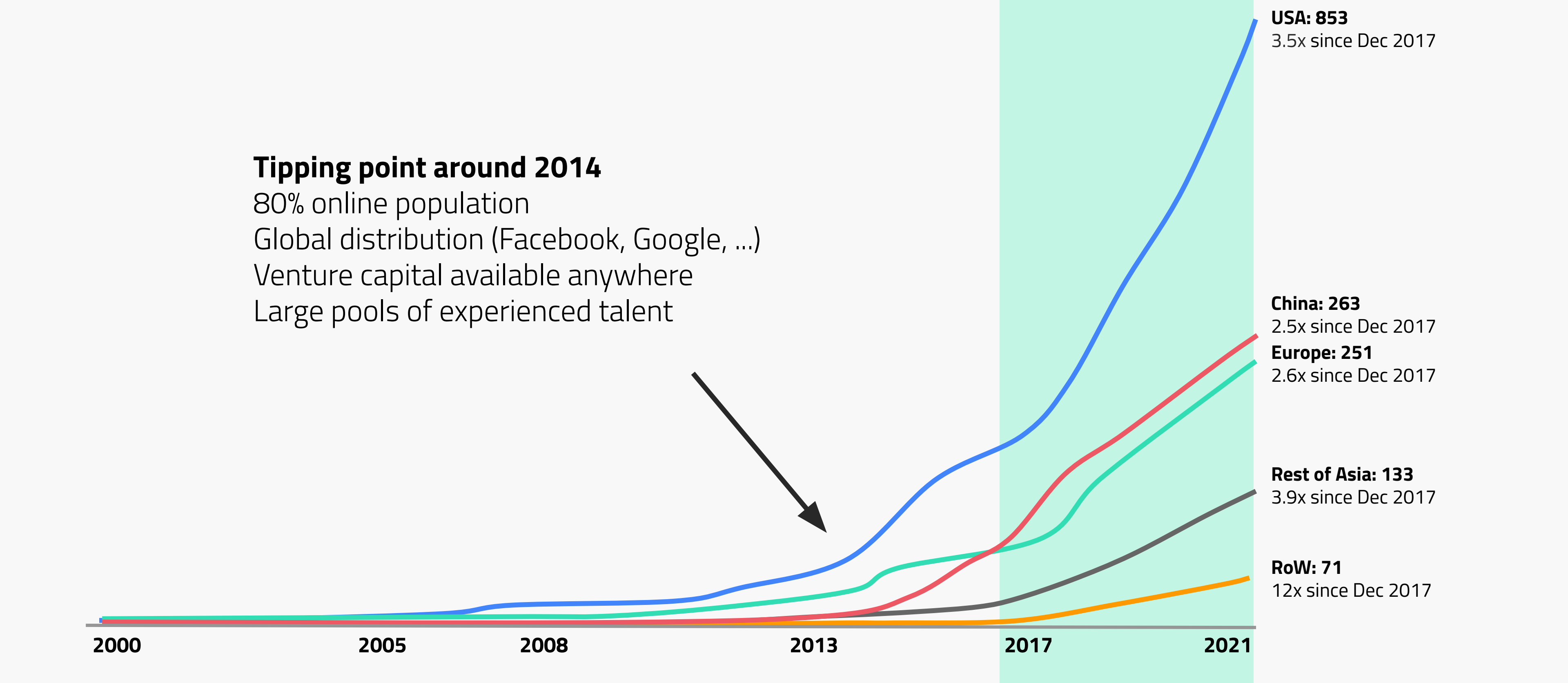
 Source: Dealroom.co

"In the industrial and information ages, we put physics and information to use. In the entrepreneurial age, **physics and information are replaced by entrepreneurship**: the ability to serve a customer at the highest level of quality and scale, simultaneously.

"In the past, scale was so difficult that organizations with bad products and great scale could win. **Scale is now available as a service** – see Foxconn (manufacturing), AWS (hosting) or Facebook (distribution)."

Babak Nivi
Co-founder of AngelList,
written in Feb 2013 on Venture Hacks

There’s an explosion of unicorns globally.



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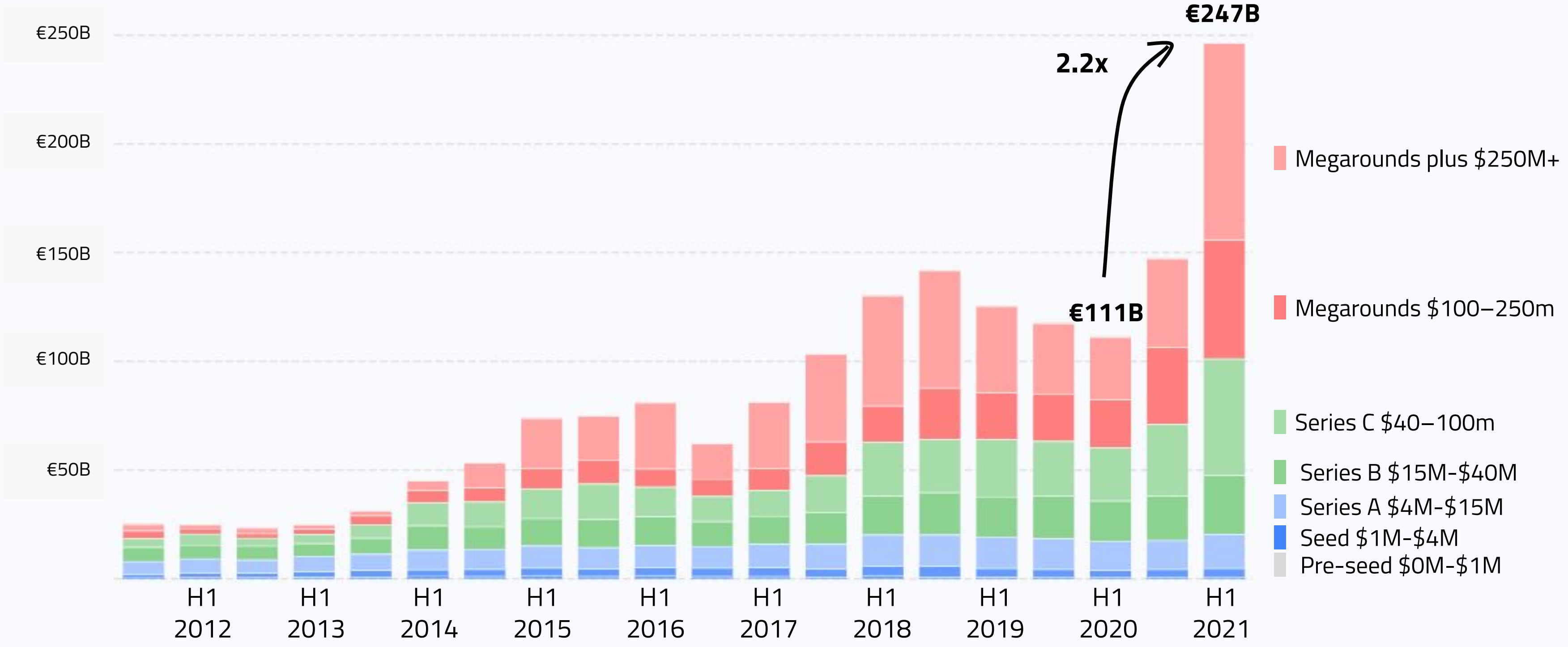
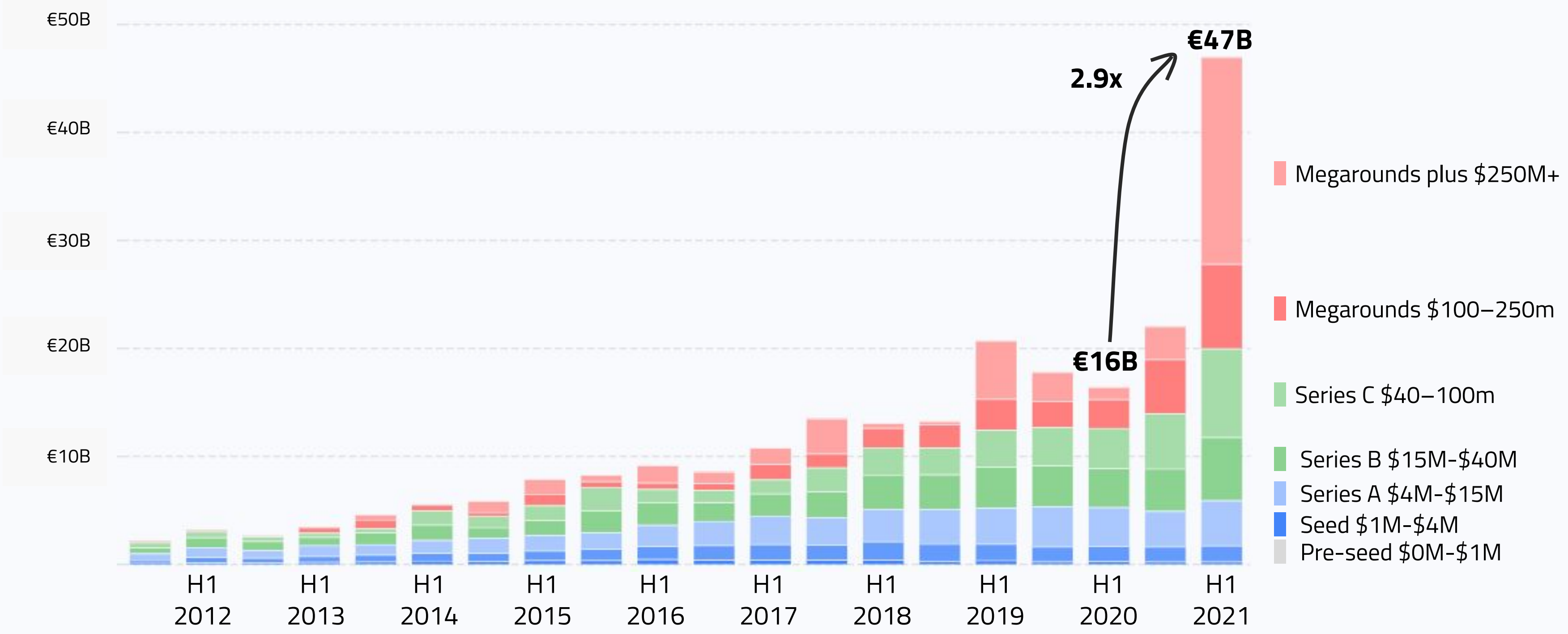
Global venture capital is crushing previous records in 2021.

Global venture capital investment [» view online]



In Europe, the growth in venture capital is even more pronounced.

European venture capital investment [» view online]



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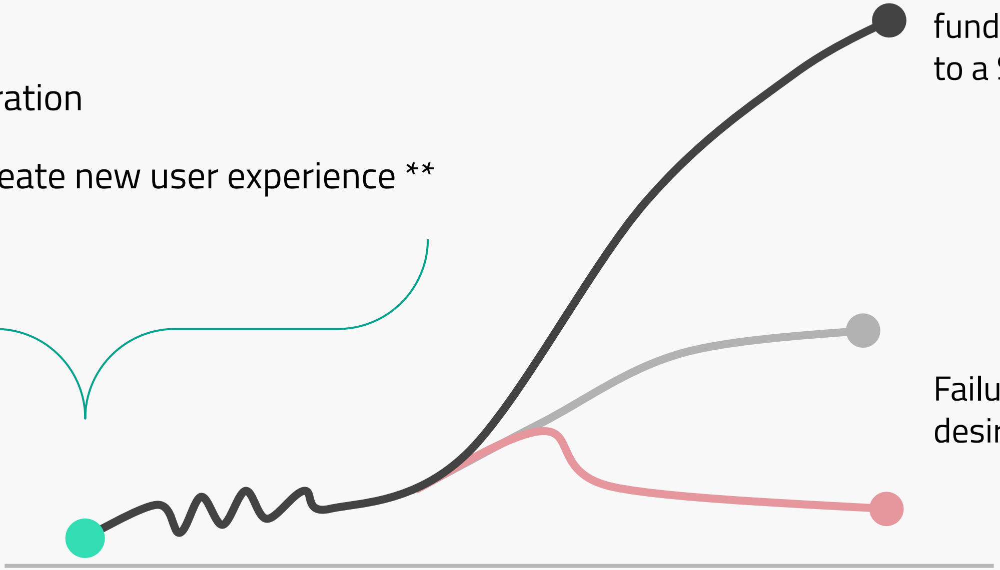
Why are startups the instrument of choice for rapid innovation?

- ✔ Skin in the game
- ✔ Growth through rapid iteration
- ✔ Exploit existing tech to create new user experience **

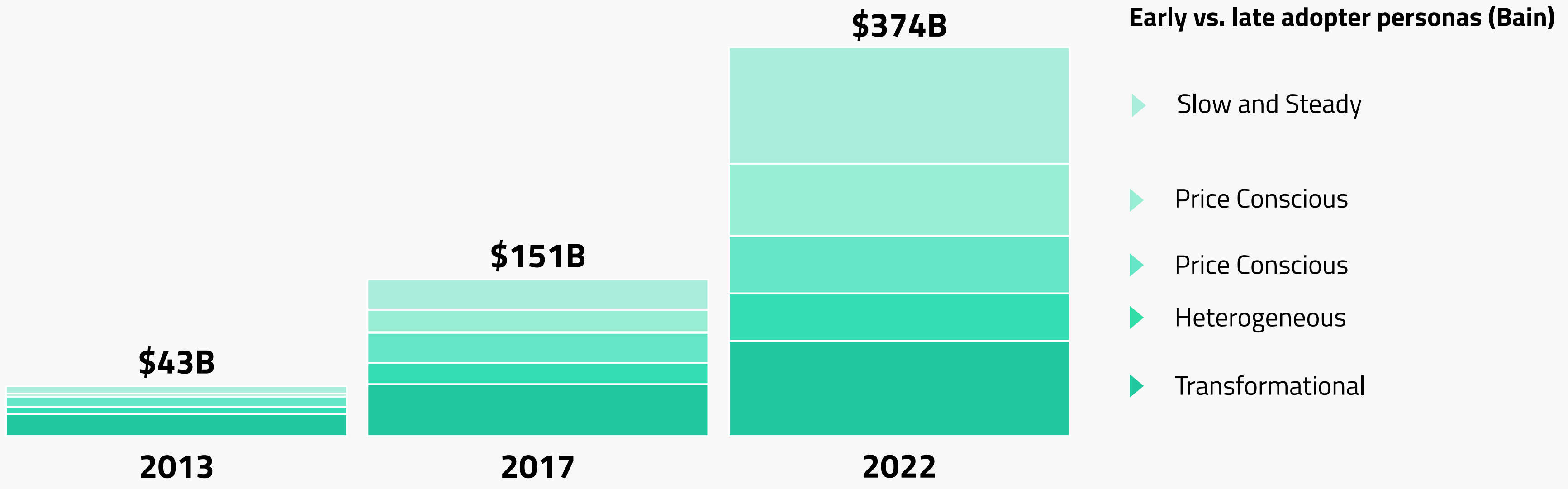


* Corporate innovation does happen too: the iPhone by Apple, AWS by Amazon, Android and Gmail by Google, R&D by semiconductors.
** Deep tech and biotech startups also create new technology, but most startups don't.

3 Corporate venture capital & innovation

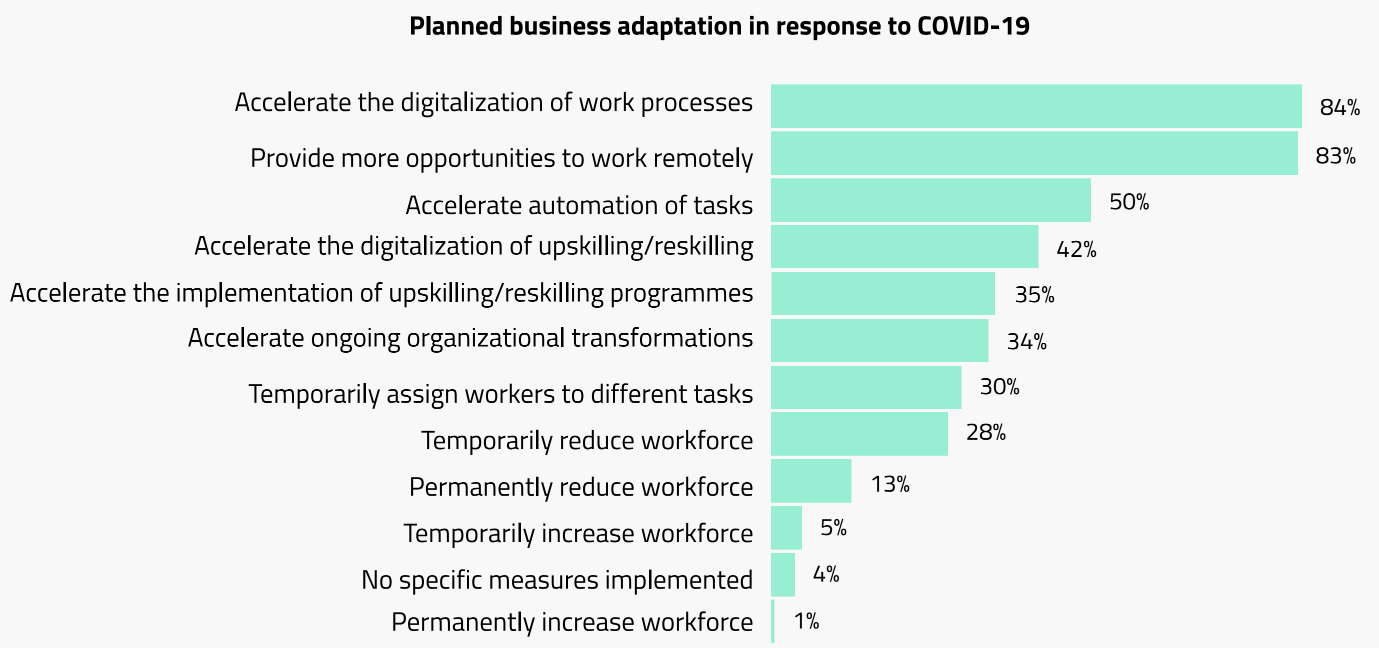
Corporates have been internally upgrading their technology. The biggest wave so far is happening now.

Spending on Cloud/SaaS



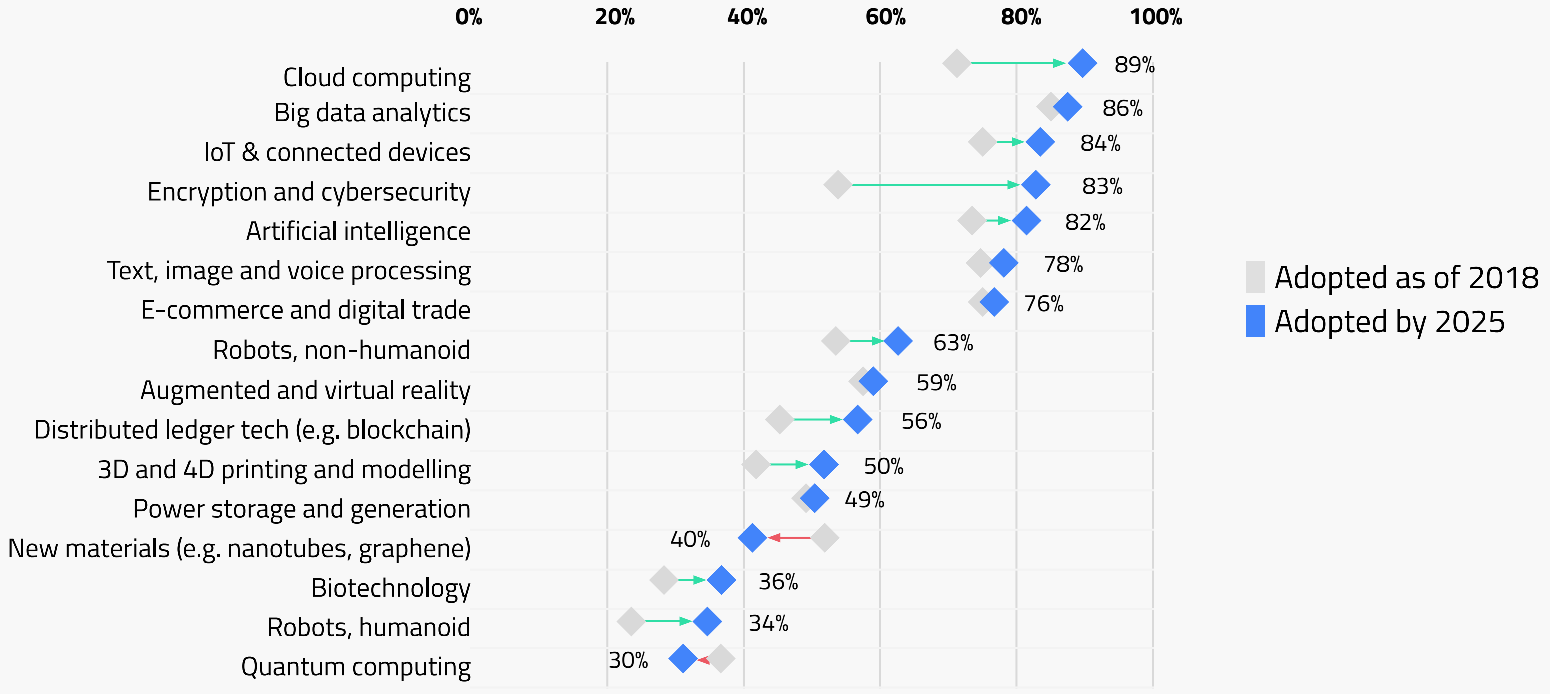
Sources: Bain (Revisiting the Five Faces of the Cloud).

Following Covid-19, corporates are accelerating their digital processes.



Source: Future of jobs survey 2020, World Economic Forum. Share of employers surveyed.

Things like Encryption, IoT and AI are becoming much more commonplace. This is an opportunity for startups and corporates to partner.

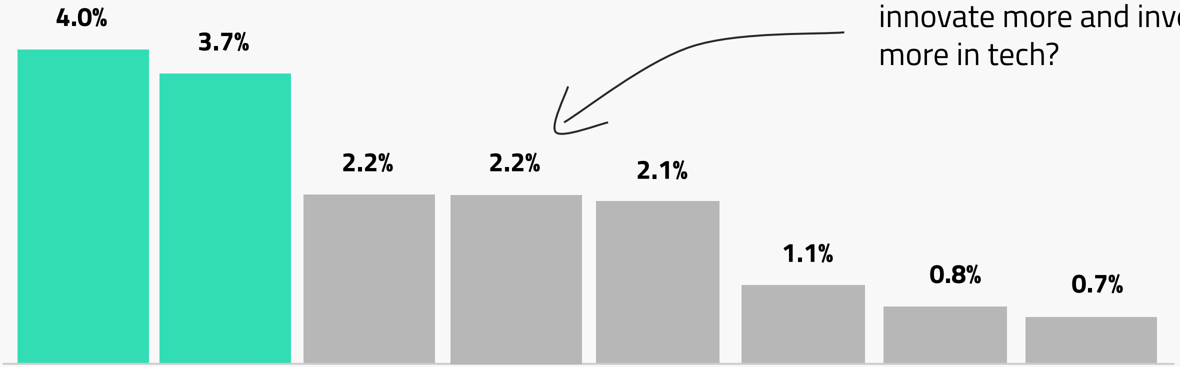


 WEF Future of Jobs 2020

US and UK corporates are spending the most.

Spending on IT as % of GDP (2018)

How to get corporates to innovate more and invest more in tech?

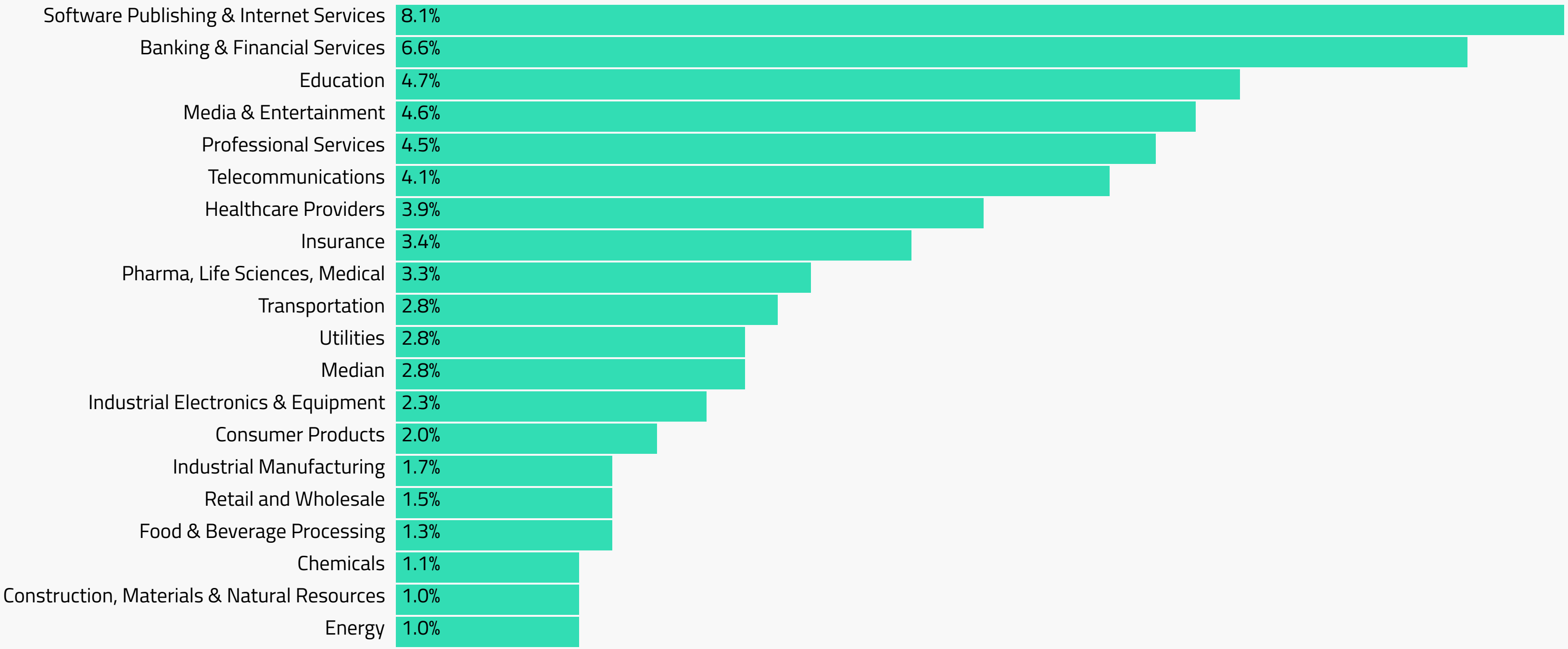


	US	UK	Germany	France	Japan	South Korea	India	China
IT spending ($B)	$830B	$105B	$89B	$61B	$104B	$18B	$22B	$88B
GDP ($B)	$20T	$2.8T	$4T	$2.7T	$5.0T	$1.6T	$2.7T	$13T

Source: Bain analysis of Gartner, IDC, Economist and other data.

The degree of spending on IT varies hugely between sectors.

Spending on IT as % of revenues (2018)



** Sources: Morgan Stanley, Bain, LocalGlobe analysis of Gartner and Fortune data.

Internal innovation is important, but today's most successful companies have undergone transformations through <u>external innovation</u>, too.

	Tech	Non-Tech
Strengthened core	Facebook, salesforce, Tencent 腾讯, Google, PHILIPS	Deutsche Telekom, Disney, BAYER, Volkswagen, Nestlé
Repositioned core	Microsoft, Adobe, SIEMENS, NOKIA, ERICSSON, NVIDIA, priceline	NASPERS, axel springer, prosus, Schibsted, Adevinta, Ørsted, Wolters Kluwer, EDF
Extended outside core	Alibaba.com, aws, Apple	Dassault Systèmes, enel x, Oetker-Gruppe

Corporate VCs are active in nearly every industry.

Tech

Automotive

Aerospace

Chemical

Health and pharma

Consumer goods

Energy

Finance

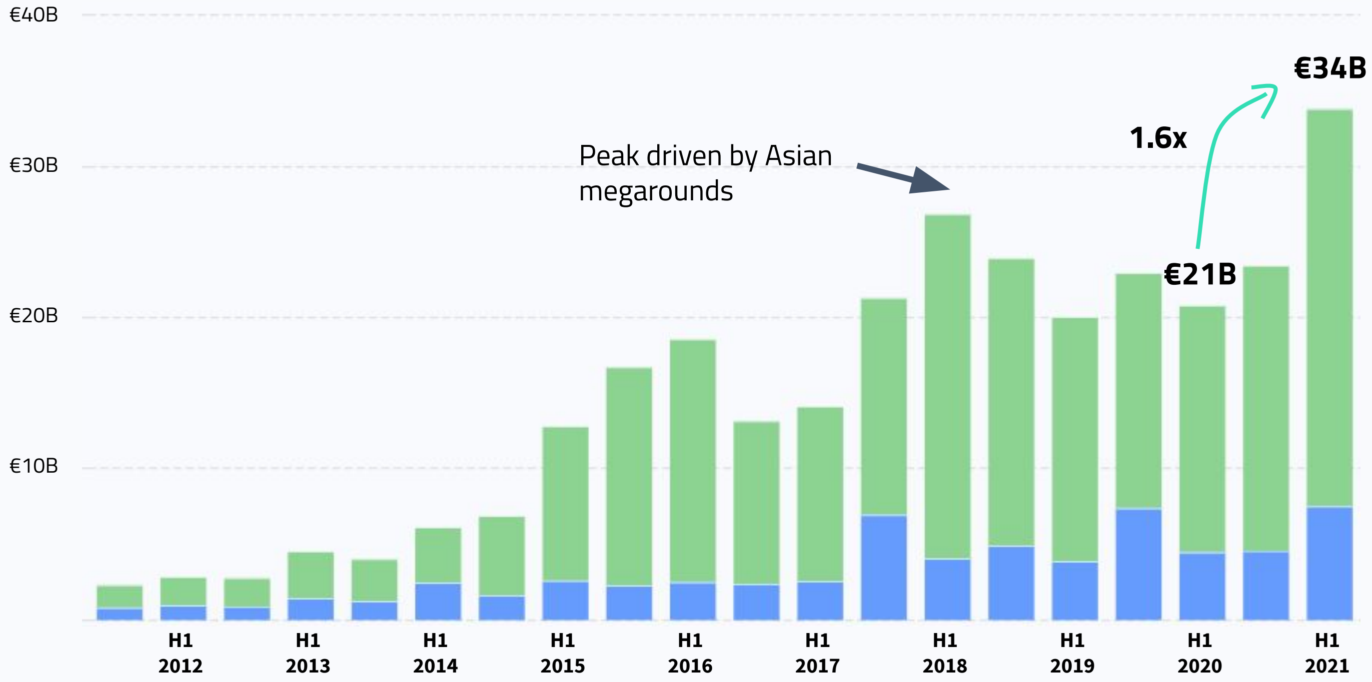
Insurance

Marittime

Telco

VC investment by corporates is on track to reach an all time high in 2021.

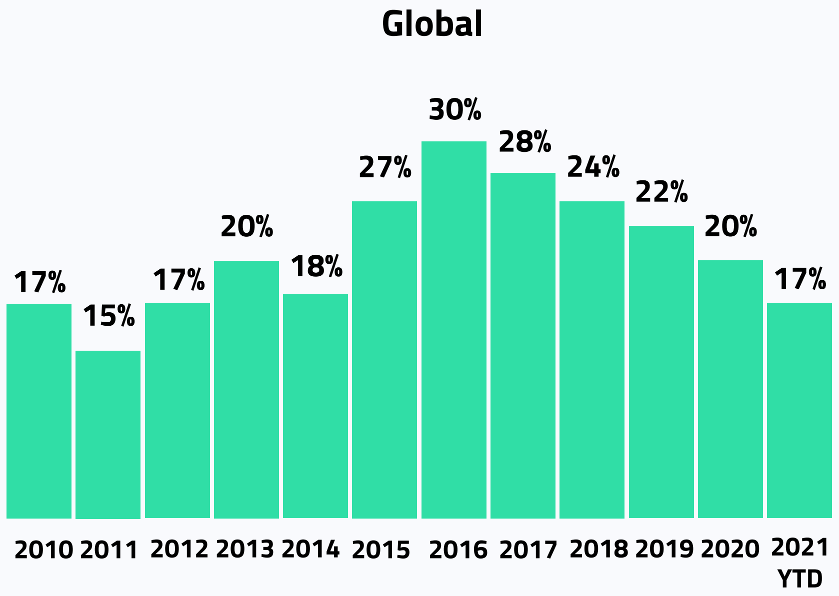
Global VC investment by corporates

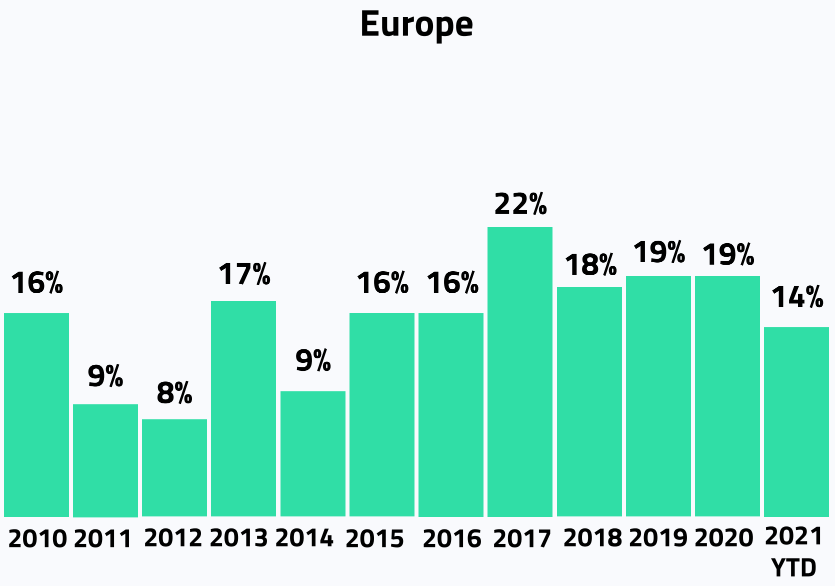


*Notably excludes Softbank, Rocket Internet and actors such as investment banks Goldman Sachs, Morgan Stanley. SPAC Private Placement rounds are also excluded

But corporate's share of total VC investment is the lowest since nearly a decade.

Corporate's share of total VC investment





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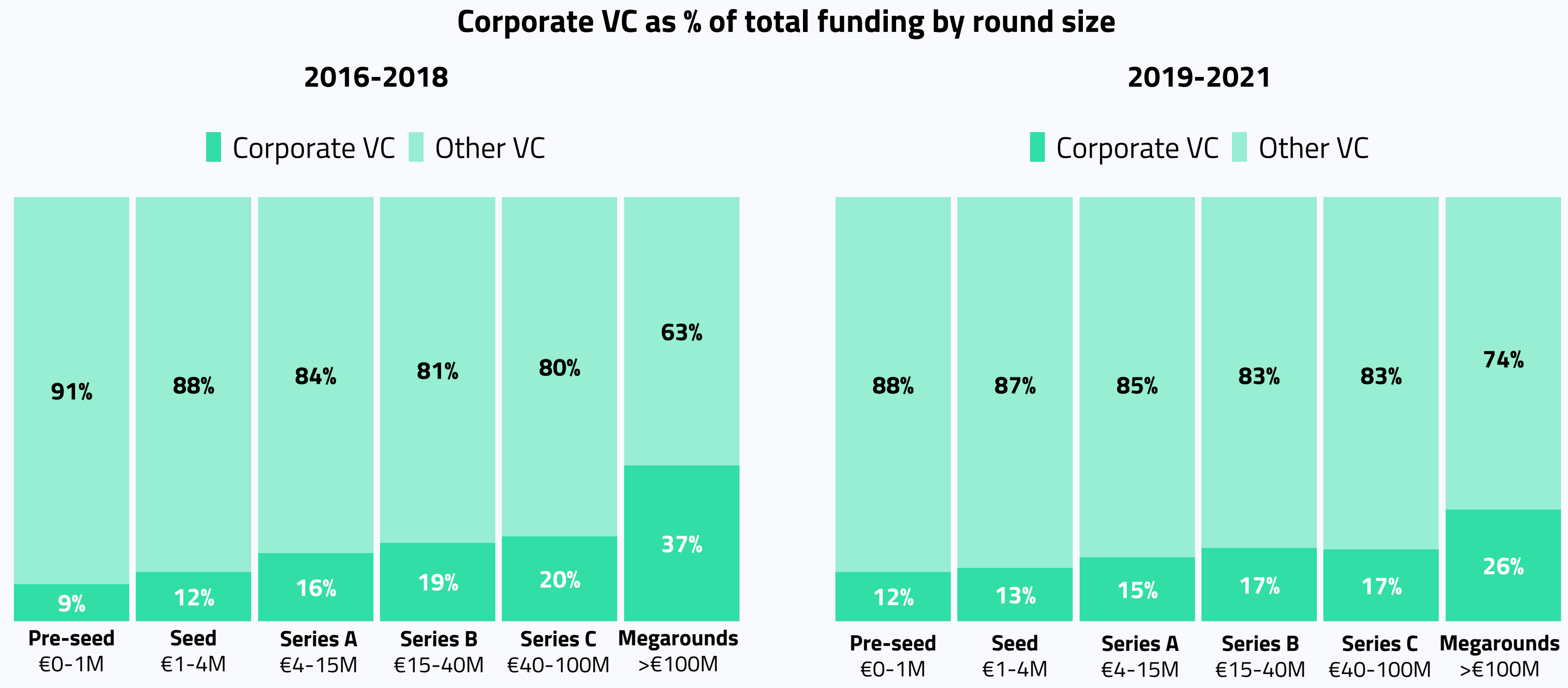
The decline is mostly at late stages, where new investor types like Softbank, Tiger and others have entered the scene.



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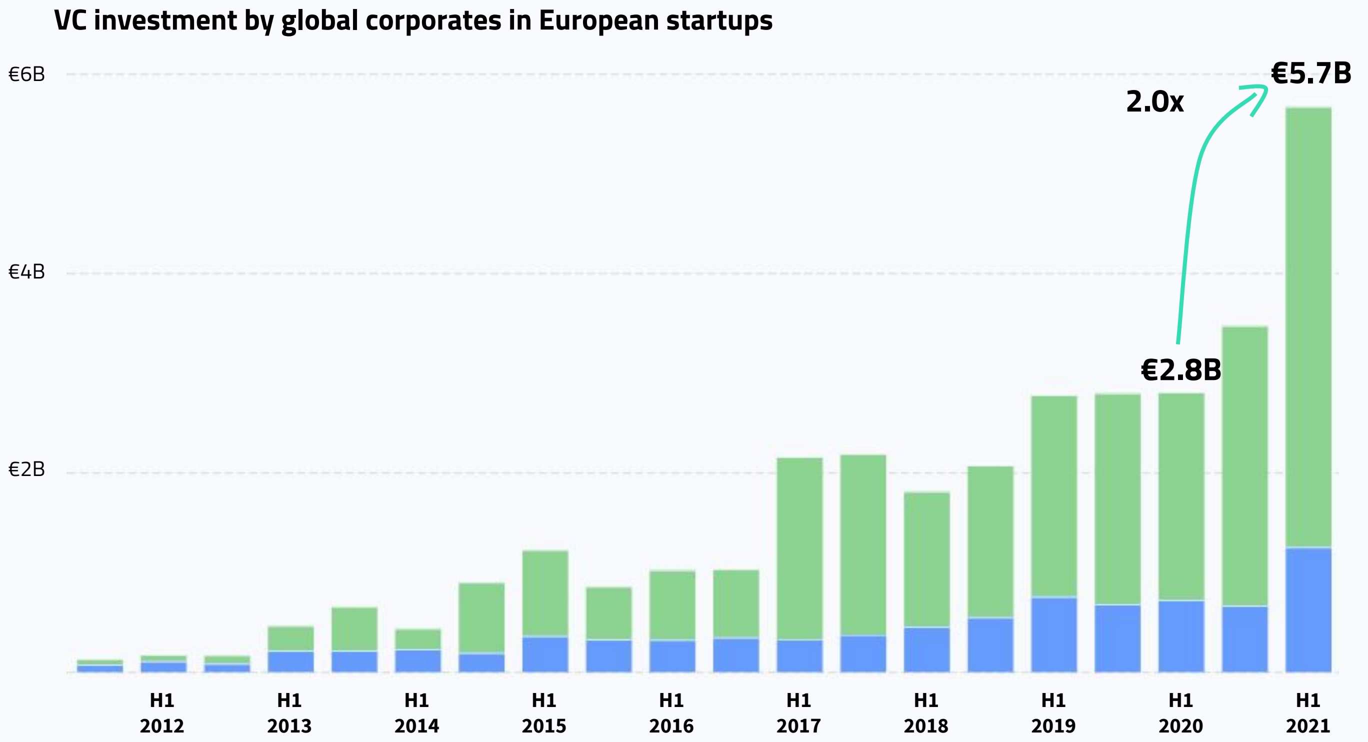
Global corporates are increasingly investing in European startups.



 EuropeanStartups.co *Notably excludes Softbank, Rocket Internet and actors such as investment banks Goldman Sachs, Morgan Stanley.
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In summary.

1. Nearly everything's about software (except handbags and champagne)
2. Scale is a commodity. Competition is about entrepreneurship
3. Talent is flocking to startups. And startups are built from anywhere
4. More than ever, corporates would benefit from partnering with startups, and strong ties with entrepreneurial ecosystems

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