

The Deal 2021

Equity investment
into private UK
companies

Year in Review

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Data for this report was finalised on the 28th January 2022

To be included in our analysis, an investment must be:

- Dated between 1 January 2011 and 31 December 2021
- Publicly announced or privately disclosed to Beauhurst
- Some form of equity investment
- Secured by a non-listed UK company

Key findings



17% increase in deal volume, 100% increase in deal value from 2020

Investors deployed more than double the amount of capital to private UK companies in 2021 than in 2020, rising from £11.3b to £22.7b. The number of deals completed also climbed, albeit at a slower pace, from 2,283 to 2,679.



Unannounced fundraisings tip deal numbers towards 7k

If we include deals that were not announced to the press, then total investments in 2021 currently stand at 6,873 deals, worth £26.5b, with more data still coming in.



Small ticket rounds are harder to come by, whilst larger ticket rounds skyrocket

Just 29% of deals in 2021 were worth less than £500k (compared with 40% in 2020), whilst 5% were worth more than £50m (compared with 2% in 2020).



Valuations hit new highs, with a median pre-money of £5.70m

Valuations have continued to soar, growing 28% from a median pre-money of £4.45m in 2020 to £5.70m. The median company valuation in London was 1.6x higher than the rest of the UK.



Most regions have a record year, with the greatest growth seen in the South West

Regional inequalities continued to grow, with a record 49% of deals going to London-based firms, but many of the regions still secured record levels of funding.



Several sectors flourish, including cleantech and life sciences

Fintech remained the dominant high-growth sector in 2021, with 310 deals announced in 2021, worth £6.57b. Cleantech and life sciences also had a great year, but investor appetite for cryptocurrency and blockchain companies slowed.

Year in Review

Resilience, Renewal & Record Rounds

Henry Whorwood Head of Research & Consultancy

Ending 2020 with an unusually quiet festive period, the UK rang in the New Year with socially-distanced renditions of Auld Lang Syne and yet another lockdown. But whilst the stay at home orders were back, this third lockdown was otherwise quite dissimilar to the first and second. Individuals, companies, and investors alike have become more resilient to this way of life, and the economic and political uncertainty that ensued from previous restrictions were far less pronounced this time around.

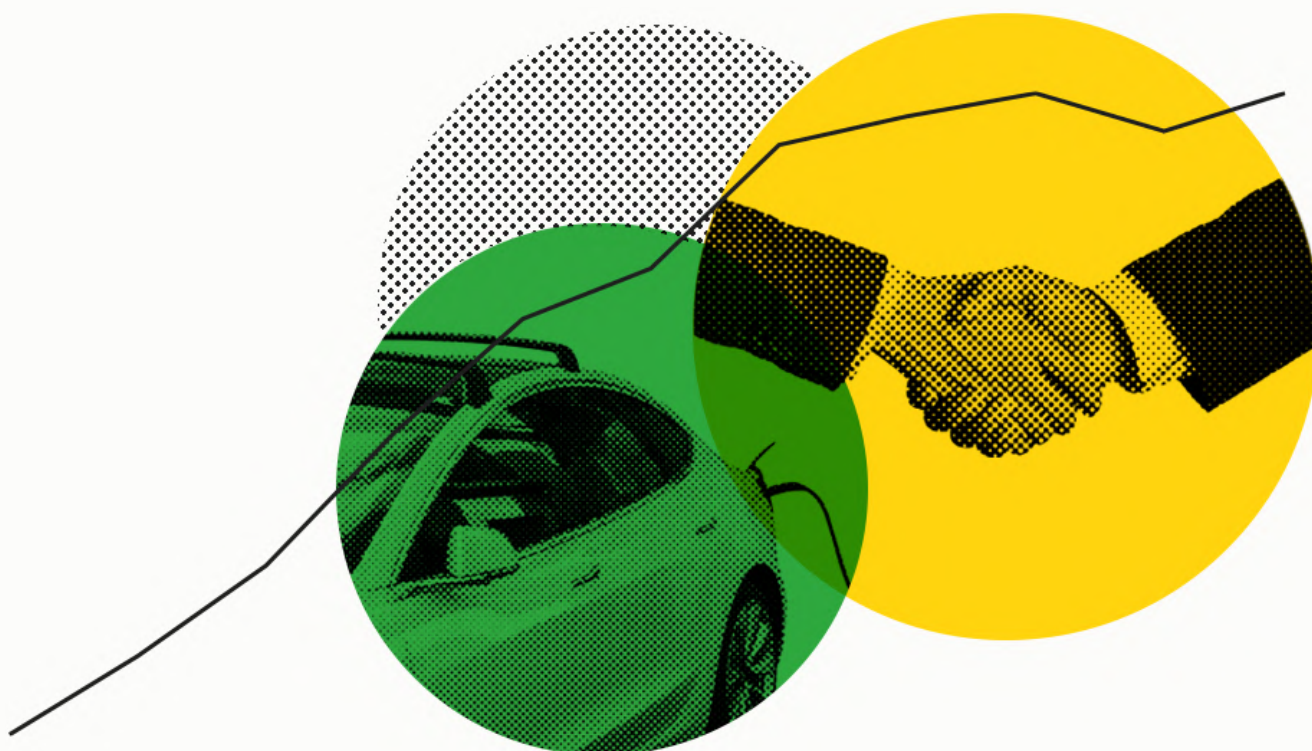
Indeed, the first three months of 2021 were a record quarter for equity investment in the UK, with the announcement of 760 deals — 24% more than the previous quarterly record of 612 in Q4 2020. And as restrictions waned over the remainder of the year, and Sunak continued his roll-out of an unprecedented economic stimulus package, investors maintained their confidence, deploying a total of £22.7b, across 2,679 announced rounds.

Of all the astounding growth we've witnessed over the past year, the increase in the number

and value of megadeals (investments worth £50m or more) is perhaps the most staggering. We tracked 112 of these deals in 2021, totalling £13.2b, up from 44 megadeals worth £4.93b in 2020. The median company valuation has rocketed alongside these figures, from £4.45m in 2020 to £5.70m in 2021, although this varies significantly between company stages of evolution and headquarter location.

Whilst VCs retained their title as the most active investor type, all categories increased their activity in 2021, particularly individual angel investors, finishing on 602 deals, compared with 359 in 2020 — surpassing the number of deals facilitated by crowdfunding platforms for the first time since 2014. Regardless of crowdfunding's slide to the third most prolific investor type, the UK's most popular platforms, Crowdcube and Seedrs, maintained their position as the most active facilitators of investment in the country.

Fintech remained the best-funded sector — no surprises there — but the record level of deal numbers seen in 2021 weren't just focused on finance, with new niches forming out of centuries-old industries. While politicians from around the world flocked to Glasgow for COP26, investors were meeting with cleantech



startups and entrepreneurs, helping them to develop innovative solutions to the climate emergency, without also causing a cost of living crisis. Meanwhile, ehealth investments also stepped up, and gamification reached new levels, crossing over with an increasing number of other sectors.

With so much capital seeking a home in the private company asset class, and so many different types of investors looking to allocate that capital, funds are having to find new ways of differentiating themselves from the competition. As my colleague Dan Robinson will discuss later in this report, some are even pivoting their operating model, beginning to look increasingly like hedge funds, rather than (as is usual) selective funds with a decade-long exit horizon.

Although Beauhurst tracks both unannounced investments and those made known to the public through press releases and articles, we've traditionally excluded unannounced deals from our temporal analyses. This is because they're sourced from Companies House filings, which are subject to a time lag, making the most recent year quarters appear deflated until the dust settles.

But these unannounced deals make up around 70% of deal activity in the UK and 30% of all pounds invested. So, in order to showcase more accurate figures, in terms of both the number and value of rounds, we've included an additional graph this year, displaying unannounced and announced deal data together. In total, then, we've tracked £26.5b invested, across an astonishing 6,873 rounds. And caveat lector: that number will grow higher over the next couple of months.

The first three months of 2021 were a record quarter for equity investment in the UK

As always, I'd like to say a big thanks to all those who have contributed their time and expertise to this report. We hope that you enjoy reading it as much as we've enjoyed creating it, and are always keen to hear your feedback.

Have any questions or comments? Send us an email at info@beauhurst.com

The Biggest Deals of 2021



£578m \$800m

Revolut

Location: London

Sector: Fintech

Fundraising date: 15/07/21

Challenger bank Revolut operates an app in which users can track and send money, trade crypto, and access a range of financial services. The company has secured £1.27b in equity investment to date, across nine rounds, and recently acquired US firm Wanted and London-based Nobly.



£432m \$600m

CMR Surgical

Location: Cambridge

Sector: Robotics

Fundraising date: 28/06/21

CMR Surgical is a medtech company that develops robotics for use in surgical procedures. It has raised nine equity funding rounds so far, totalling £743m, from backers including Softbank Vision Fund, Escala Capital, Tencent and Cambridge Innovation Capital.



£359m \$475m

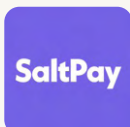
Monzo

Location: London

Sector: Fintech

Fundraising date: 09/12/21

Monzo operates a challenger bank app wherein users can track and budget their money, instantly open savings accounts, and access loans. The company has secured £927m worth of equity funding, across 17 rounds, with participation from the likes of Accel, Y Combinator and General Catalyst Partners.



£358m \$500m

SaltPay

Location: London

Sector: Fintech

Fundraising date: 30/04/21

SaltPay develops payment processing software and point-of-sale technology for SME merchants. The fintech company has raised two equity funding rounds so far and made acquisitions of four companies: Borgun, Pagaqui, Tutuka and Paymentology.



£333m \$450m
Checkout.com

Location: London
Sector: Fintech
Fundraising date: 12/01/21

Checkout.com develops software that allows businesses to process its payments online in more than 150 currencies. Backed by Tiger Global, Insight Partners and Digital Sky Technologies, among others, Checkout.com has raised £1.36b in equity investment so far, in just four rounds.



£324m €380m
Hopin

Location: London
Sector: Internet platform
Fundraising date: 05/08/21
Fundraising date: 04/03/21

£287m \$400m

Hopin operates an online platform for businesses to plan, run and rewatch virtual or hybrid events. The company has secured £743m of equity investment, across six rounds.



£272m
Starling Bank

Location: London
Sector: Fintech
Fundraising date: 08/03/21

Starling Bank is a challenger bank that provides app-based current accounts where users can track their finances in real time. It's raised eight equity funding rounds so far, totalling £585m, with investors including Merian Global Investors and Fidelity. It also acquired Fleet Mortgages in July 2021.



£246m \$350m
Bought By Many

Location: London
Sector: Insurtech
Fundraising date: 01/06/21

Bought By Many provides pet insurance, with a range of insurance policies available, including cover for pre-existing conditions. The company acquired pet health products subscription service VetBox late last year, and has raised £357m in equity investment to date.



£220m
Zopa

Location: London
Sector: Fintech
Fundraising date: 19/10/21

Previously a peer-to-peer lending site, Zopa now offers banking services via its mobile app, including loans, credit cards, and car finance. It's raised £516m in equity investment, across 13 funding rounds. The company's backers include Augmentum Fintech, Balderton Capital and Forward Partners.

Headline figures

For all the economic and political uncertainty that carried through from 2020 into 2021, the UK's private investors continued their activity full steam ahead.

We tracked 2,679 announced equity investments into private UK companies over the course of 2021. These deals totalled £22.7b — more than double the amount invested in 2020, and more than triple the amount invested in 2016.

The first quarter of the year was the busiest in terms of volume of deals completed, with 760 announced between January to March, whilst the UK population was staying at home under full lockdown for the third time since the start of the pandemic.

Deal volume waned in Q2 and Q3, but picked up again in Q4, with 667 announced between October and December. The value of deals fluctuated less, with a low of £5.37b in Q2 and a high of £6.36b in Q3.

A word on unannounced deals

Beauhurst is the only data provider to track every equity fundraising into UK companies, even those that aren't announced to the public. These unannounced rounds (also known as stealth rounds) make up around 70% of deal volume and around 30% of annual deal value, representing a huge portion of equity activity.

We pick up on unannounced deals by monitoring share allotment filings made to Companies House. These are legally required to be made within 30 days of the new share

issuance, but can take longer to come through, which means these deals — unlike those that are announced to the press — are subject to a fairly significant time lag.

Because of this, unannounced rounds are excluded from temporal analyses, in order to display accurate trends over time. Figure 1.2 shows that the actual volume and value of deals made in 2021 is at least £26.5b across 6,873 rounds, with additional data still trickling in each week.

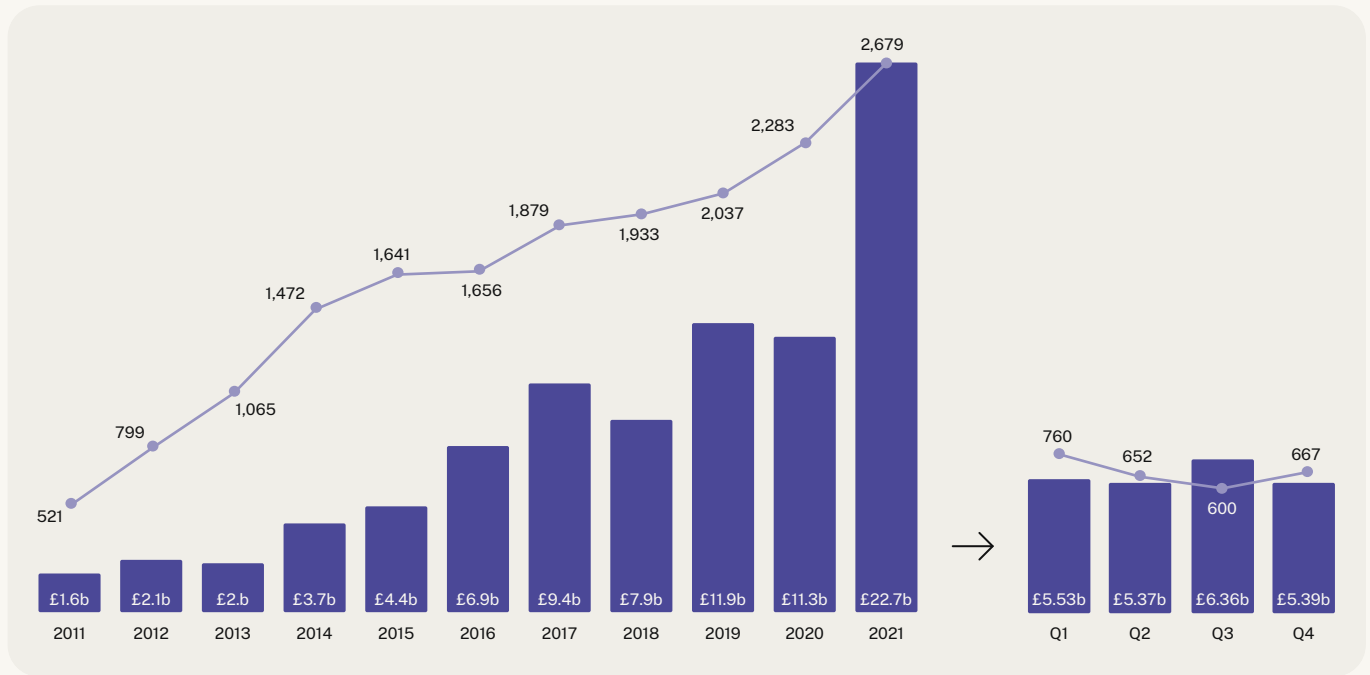
2,679
deals

↑ 17%
since 2020

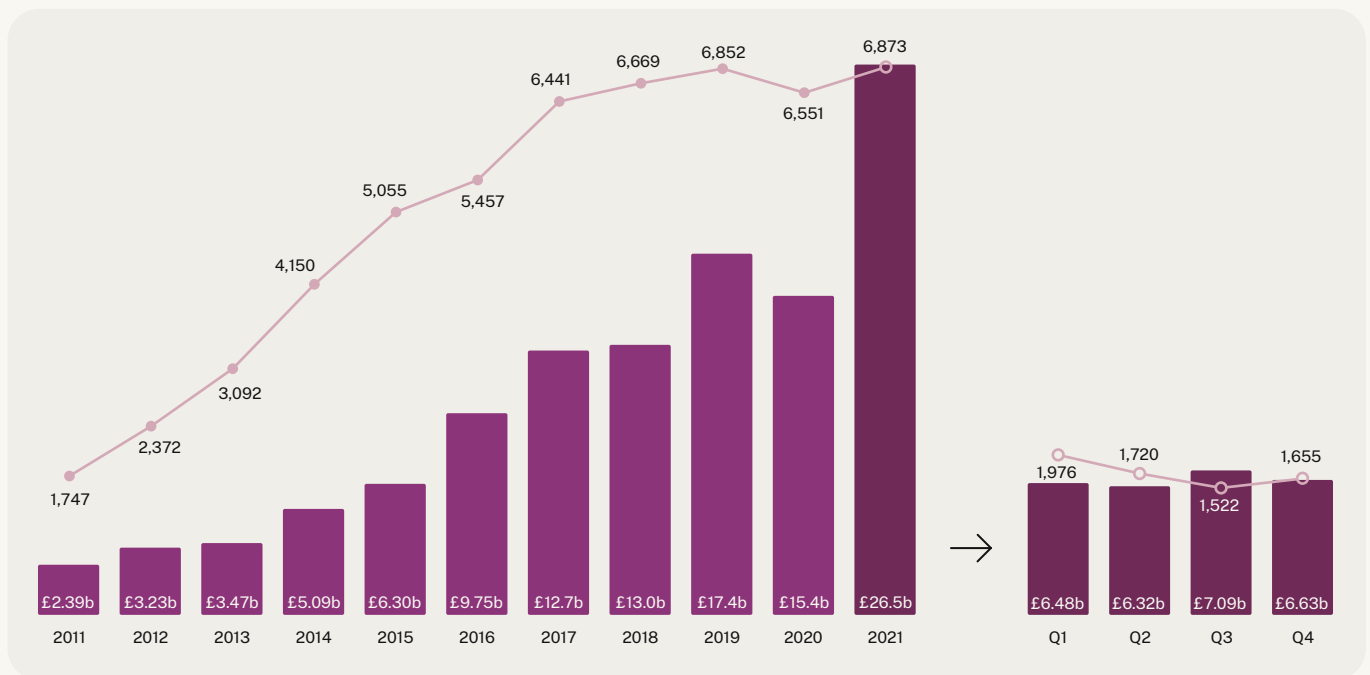
£22.7b
raised

↑ 100%
since 2020

1.1 Number of deals and amount raised since 2011, including announced deals only



1.2 Number of deals and amount raised since 2011, including announced and unannounced deals



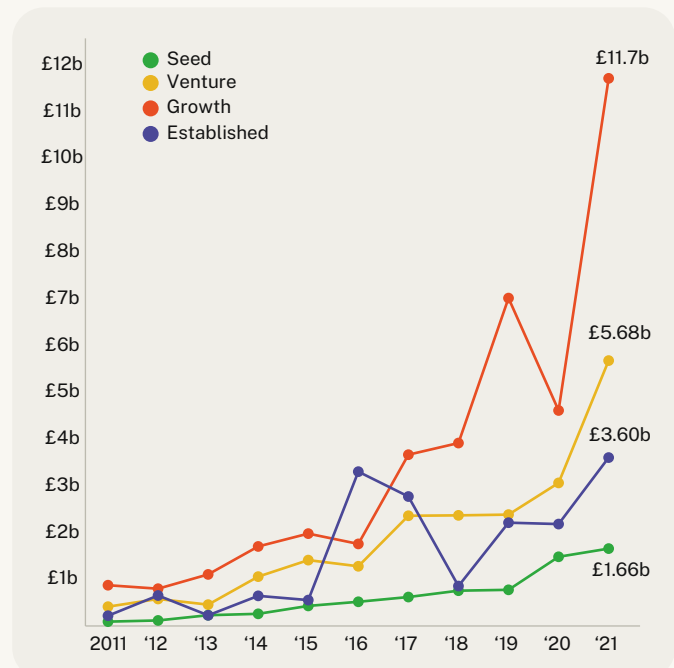
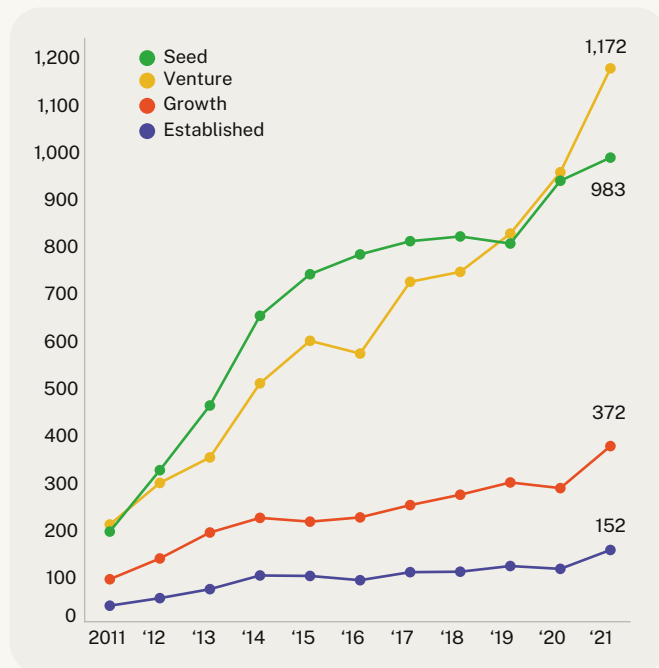
Investment stages and brackets

Every stage of evolution secured a record volume and value of investment in 2021. For the third year in a row, companies in the venture stage of evolution secured a greater number of deals than those in the seed stage, with a hugely increased lead in 2021. Indeed, venture-stage companies saw a huge boost in the number of deals completed, up 23% from 2020, to 1,172. Companies at this stage have significant traction and a valuation in the millions.

Meanwhile, seed-stage companies only saw a 5% rise in deal volume, ending on 983 announced investments in 2021, compared with 934 in 2020. Deals into growth-stage companies increased by 31%, while deals into established-stage companies increased by 36%.

Growth-stage companies saw the most notable increase in deal value, rising 154% from £4.61b to £11.7b in 2021.

2.1 Number of deals and amount raised since 2011, by stage of evolution



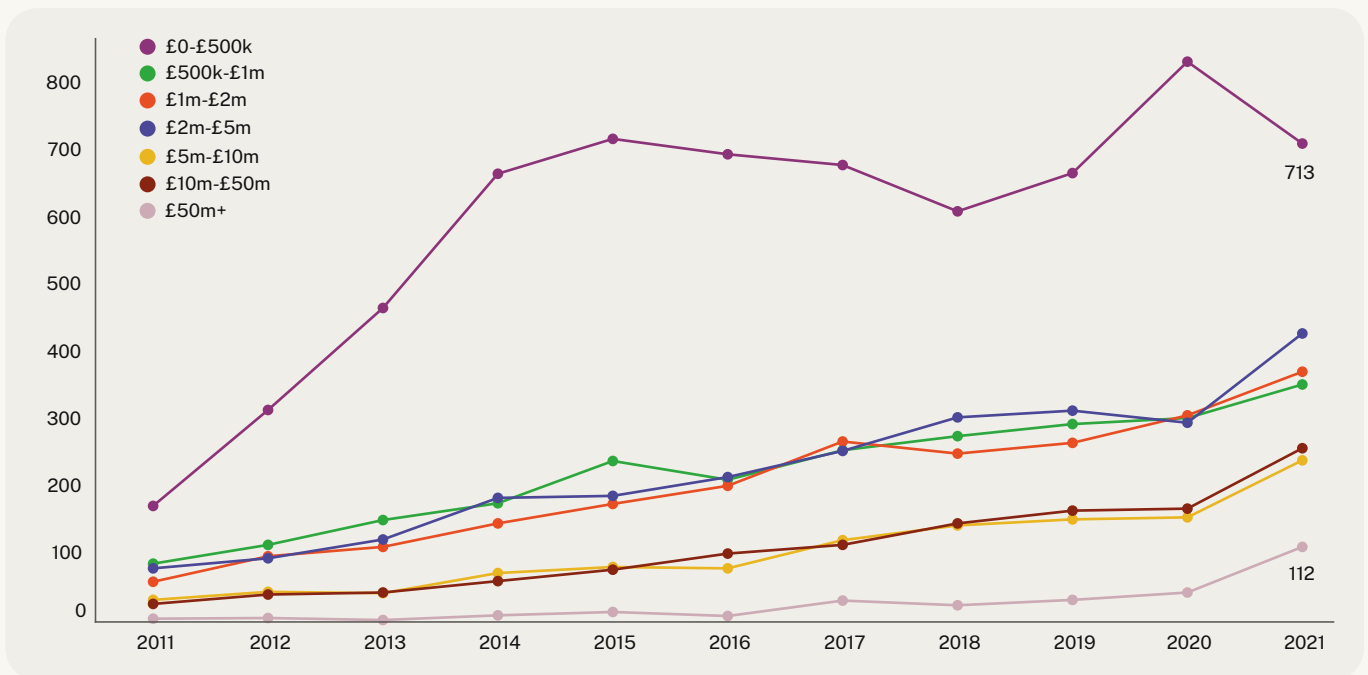
For the best part of the last decade, investors have been deploying increasingly large amounts of capital in single rounds. This is a sign of a maturing market, with a greater number of companies reaching the stage at which they need and are able to take on significant capital.

However, this trend has also coincided with a decline in both the proportion and number of deals taking place below the value of £500k. Just 713 deals (29%) were worth

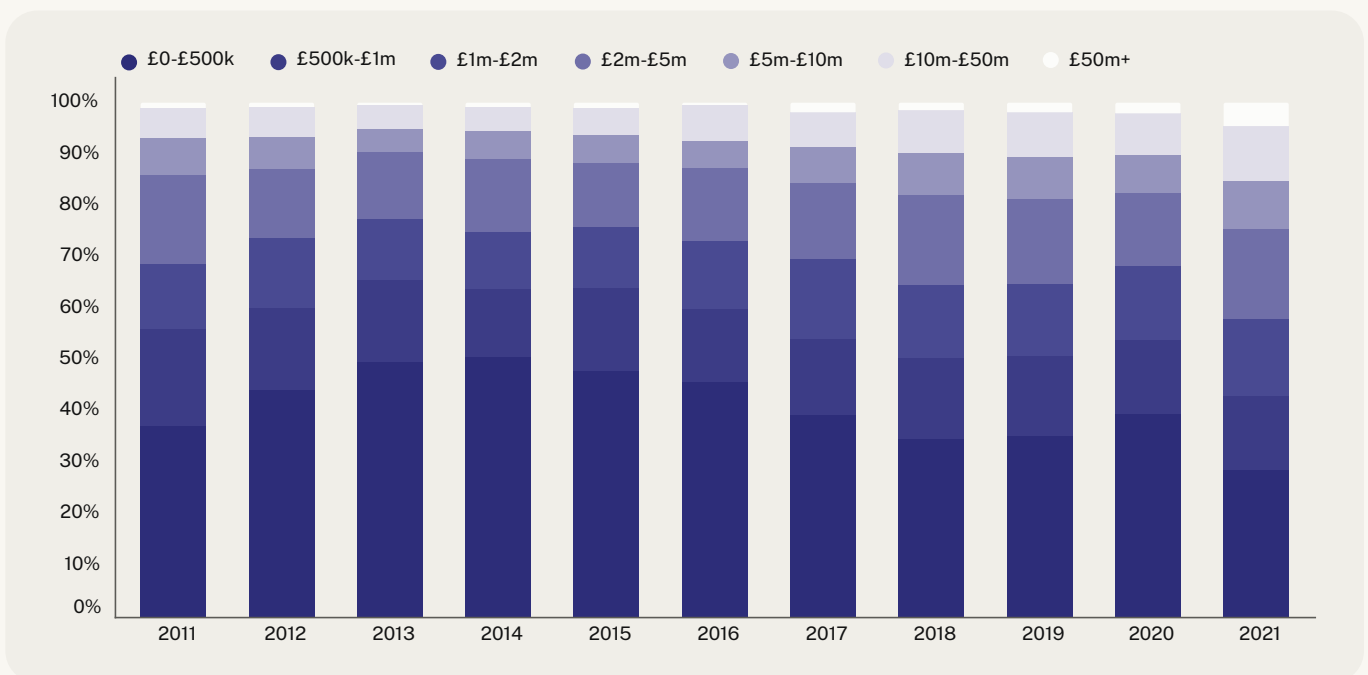
less than £500k in 2021, compared to 835 (40%) in 2020 and 669 (35%) in 2019.

These small-ticket deals have traditionally been necessary for younger companies to gain initial traction. But as capital is now so cheap, it seems many companies are skipping these smaller rounds in favour of slightly larger raises. Indeed, less than 50% of first-time equity raises in 2021 were worth less than £500k.

3.1 Number of deals since 2011, by investment size



3.2 Proportion of deals since 2011, by investment size

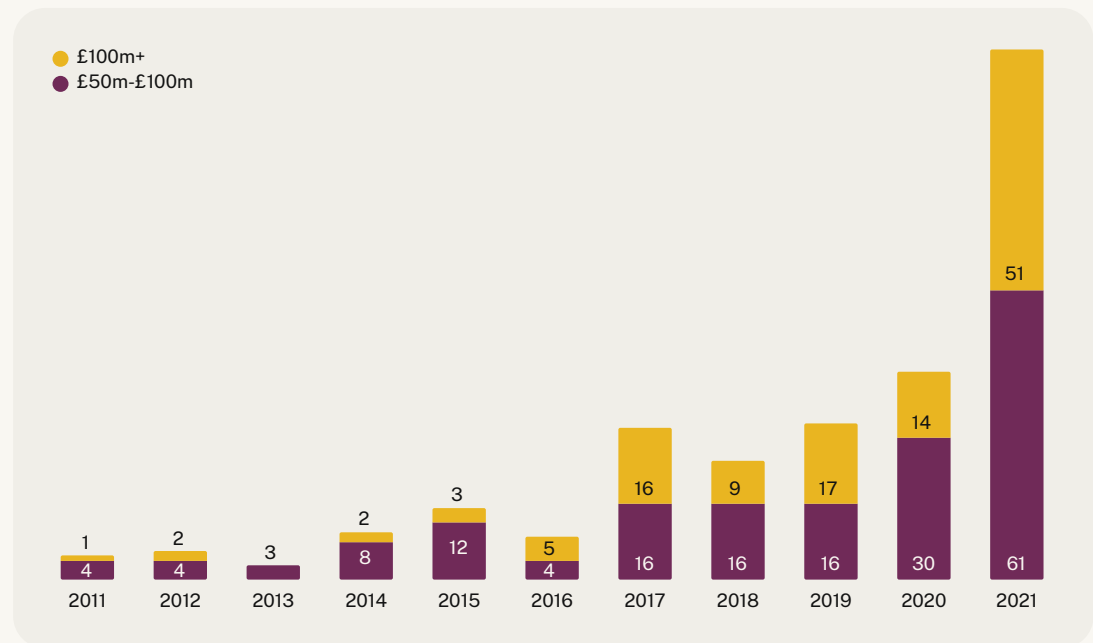


Megadeals

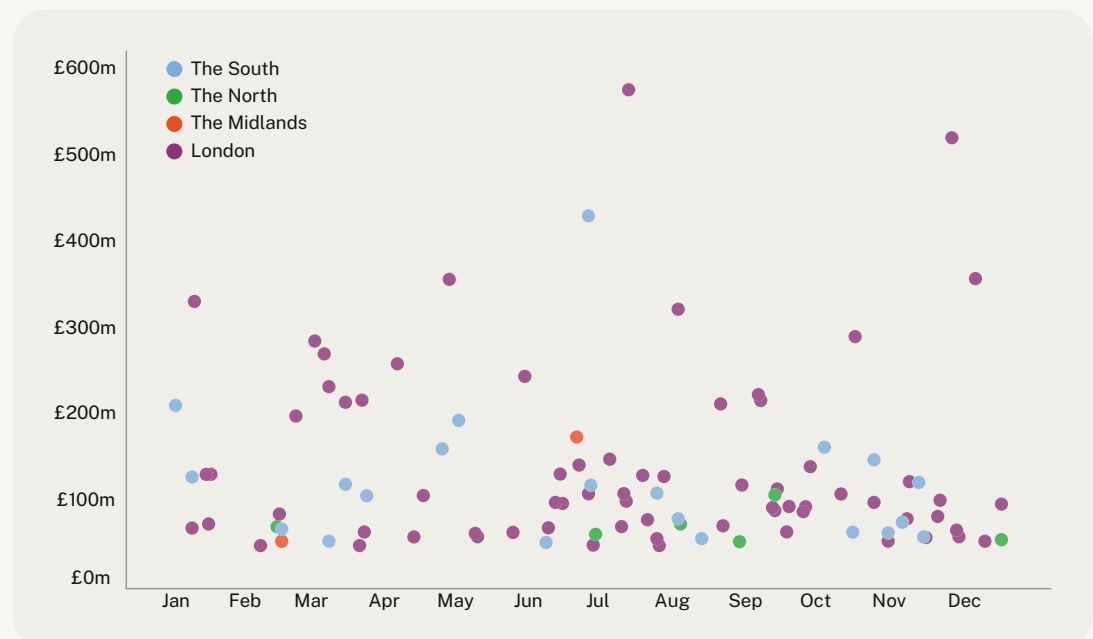
Megadeals — investments that are worth at least £50m — have become an integral part of the UK's innovation landscape, and breached the 100 mark for the first time in 2021. Despite their proliferation, there is a clear regional inequality amongst these deals: 100% of megadeals in 2021 went to companies headquartered in England.

Furthermore, only 25% went to companies based outside of London. Because of the size of these rounds, they often include participation from foreign investors. Indeed, 87% of megadeals that took place in 2021 are known to have included participation from a foreign investor, and 71% included participation from at least one US fund.

4.1 Number of megadeals since 2011



4.2 Number of megadeals in 2021, by region

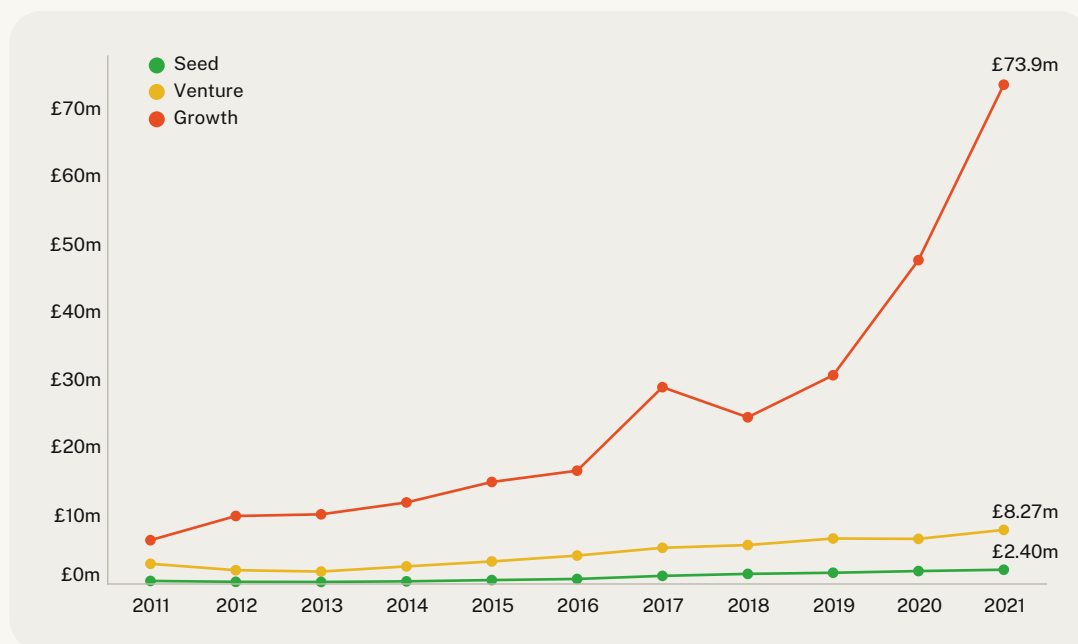


Valuations

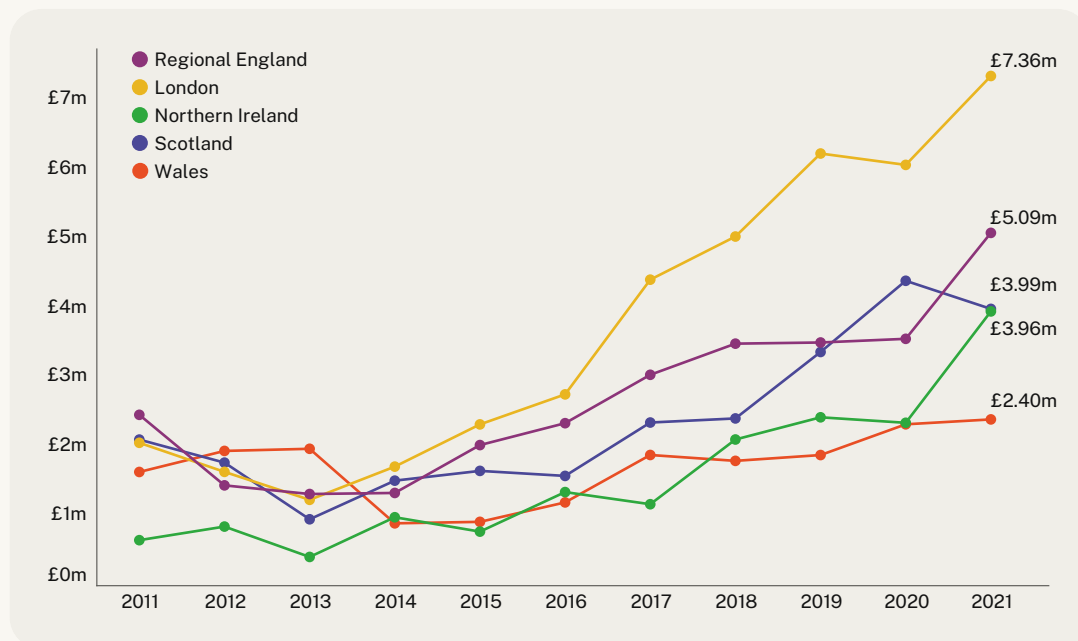
Median company valuations climbed across every stage of evolution last year, but most notably at the growth stage, rising 54% from £48.0m in 2020 to £73.9m. This marks the second year in a row that growth-stage valuations have risen more than 50%. Given megadeal trends, it stands to reason that company valuations are far higher in London

than the rest of the UK; valuations in the Capital pulled away from those in other regions in 2017, and have maintained a significant lead ever since. Between 2020 and 2021, however, there were similar levels of growth in median company valuations between London, other English regions and Northern Ireland.

5.1 Median pre-money valuations since 2011, by stage of evolution



5.2 Median pre-money valuations since 2011, by region



Regional trends

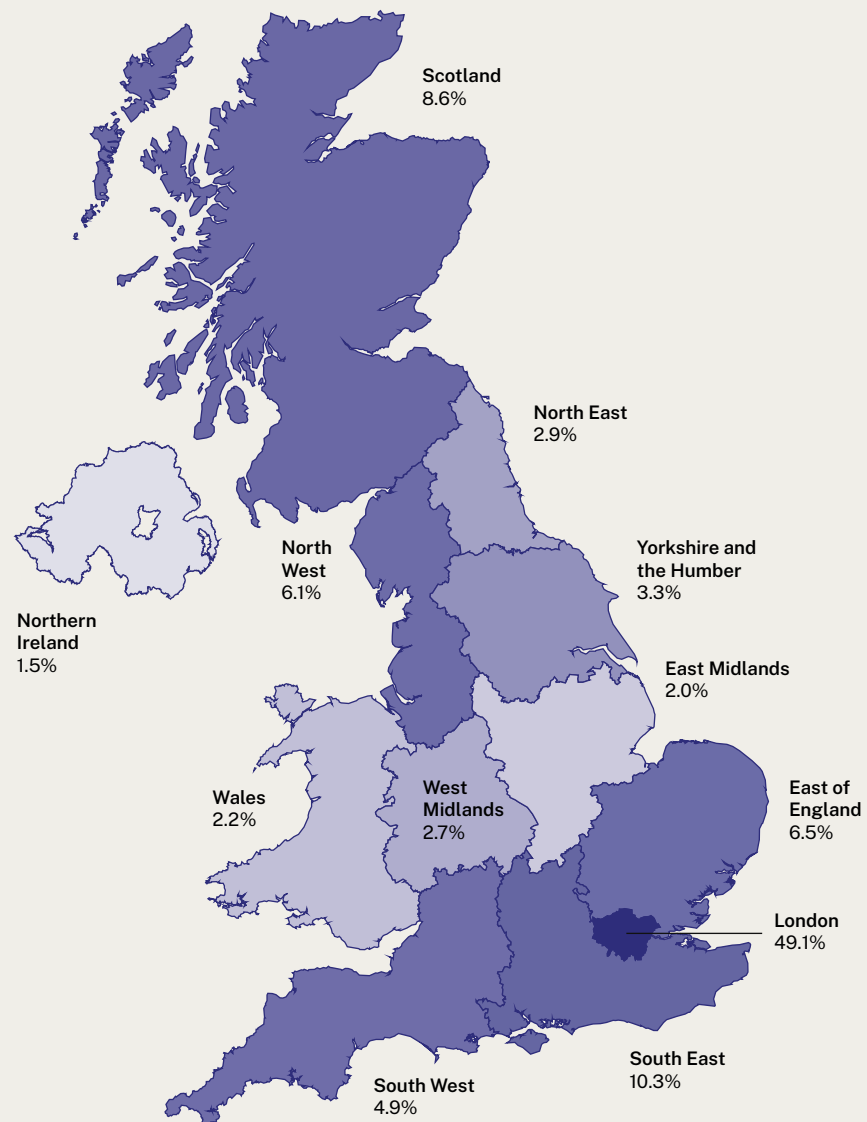
Despite growing disparities between London and the rest of the country, many regions saw an uptick in deal volume and value in 2021. Scotland and Wales were the only UK regions not to secure a record number of deals.

The South West had the highest growth rate, with 48% more deals secured in 2021 than in 2020, followed by the East Midlands, with a 37% increase.

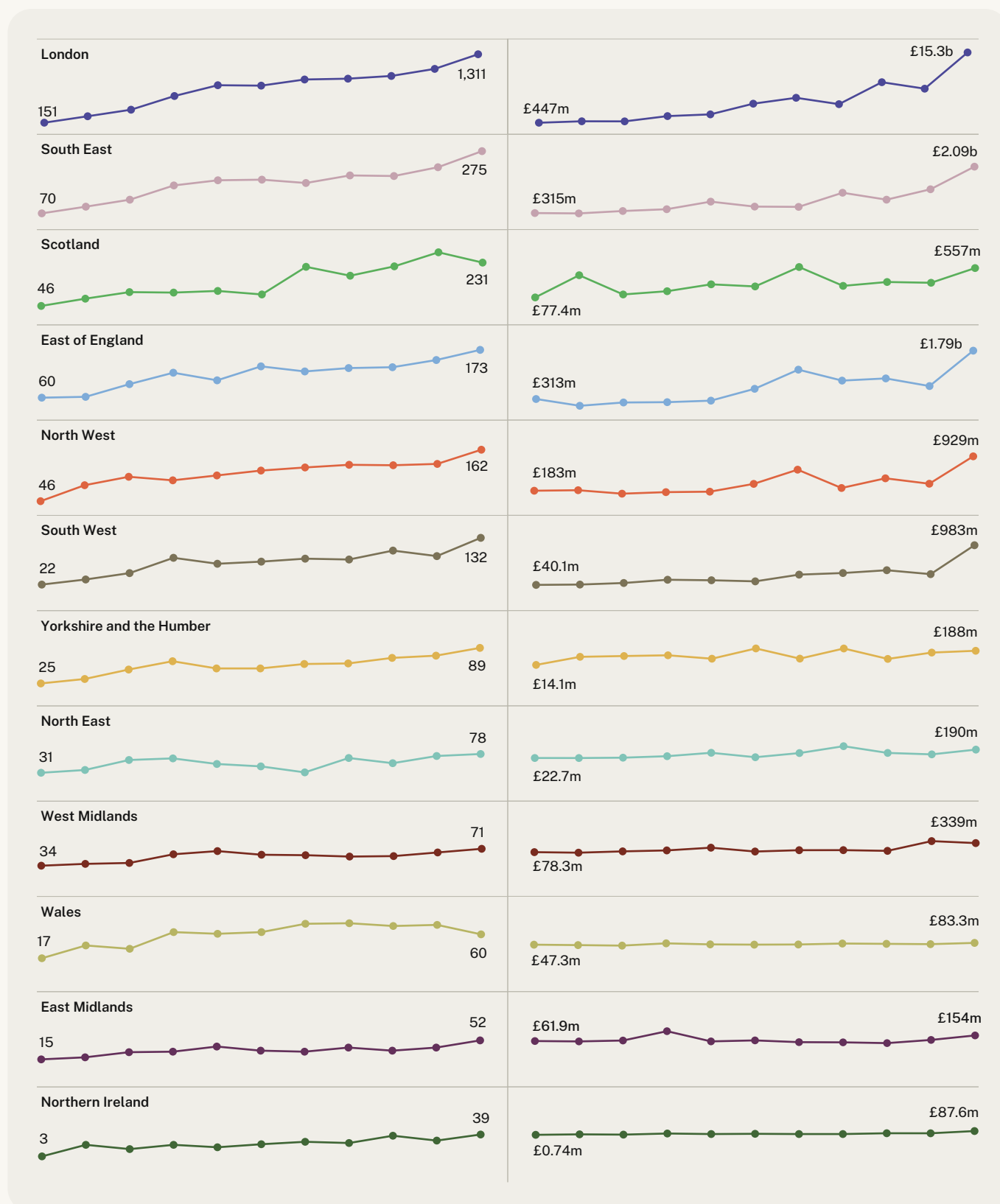
Meanwhile, Wales, the South East, South West, North West, East of England, Northern Ireland, and London all secured a record amount of investment. The South West again saw the highest growth rate (232%), followed by the North West (177%).

Companies in London saw deal volume increase 23%, from 1,063 to 1,311, while deal value grew 100%, from £7.62b to £15.3b.

6.1 Regional distribution of deals in 2021



6.2 Number of deals and amount raised since 2011, by region

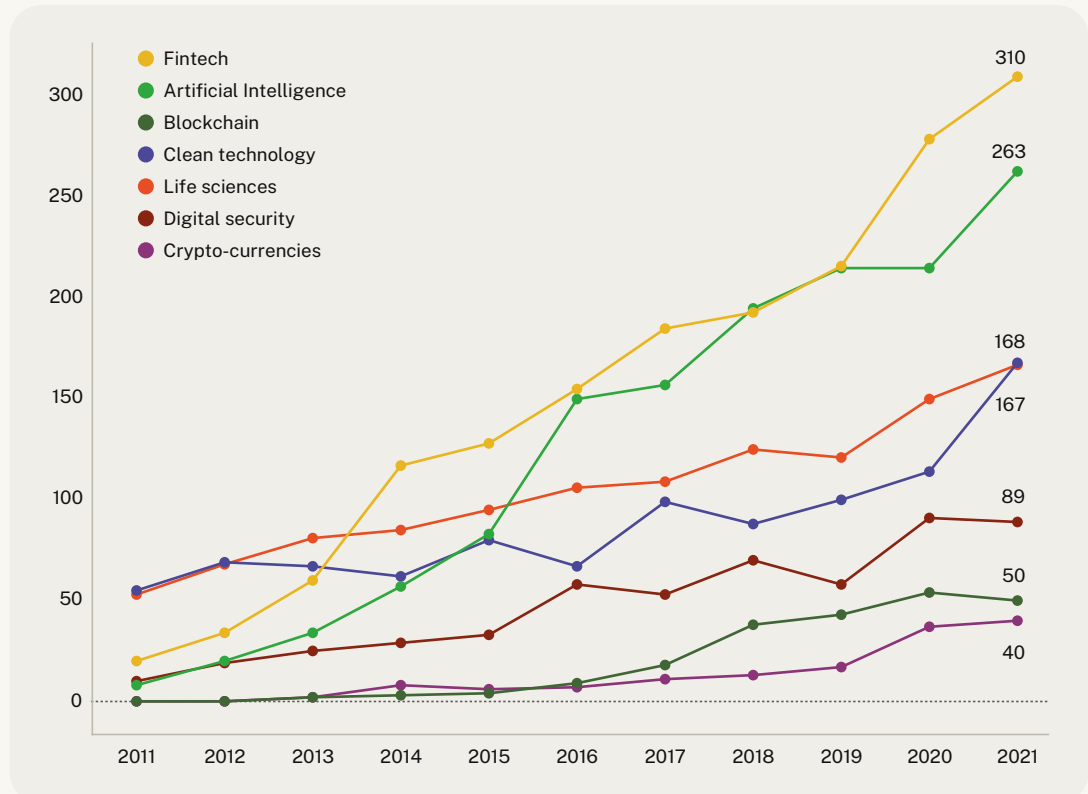


Sectors

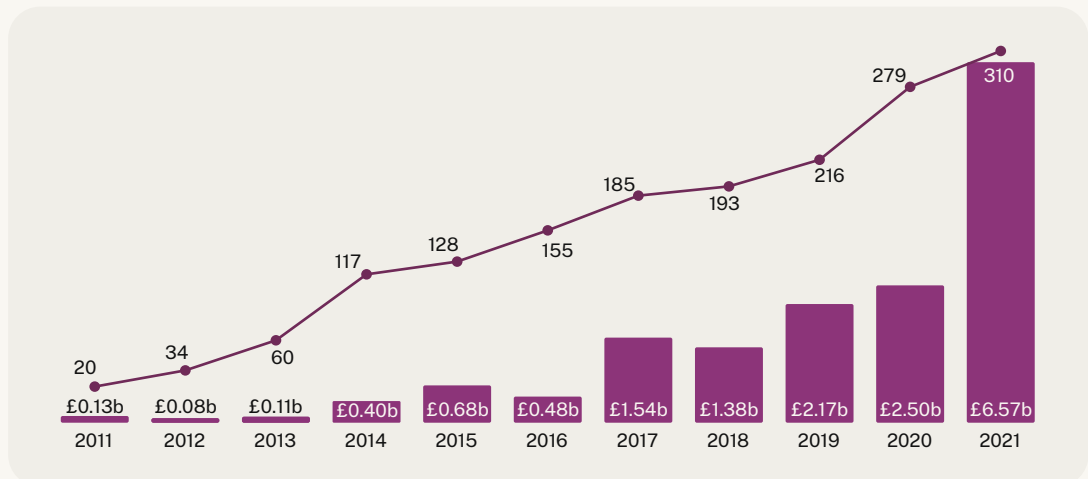
Several of the UK's leading high-growth sectors saw increased investor interest last year. The life sciences sector continued to see steady growth in deal numbers, while companies operating in clean technology saw a significant rise, from 114 rounds in 2020 to 168 in 2021 – a welcome development in the face of the escalating climate crisis.

Fintech had an astonishing year, with 310 rounds worth a combined £6.57b – more than two and a half times the amount raised in 2020. Despite growth in crypto asset markets, private investment into the space has stagnated, at just 40 deals into cryptocurrency companies and 50 into blockchain firms.

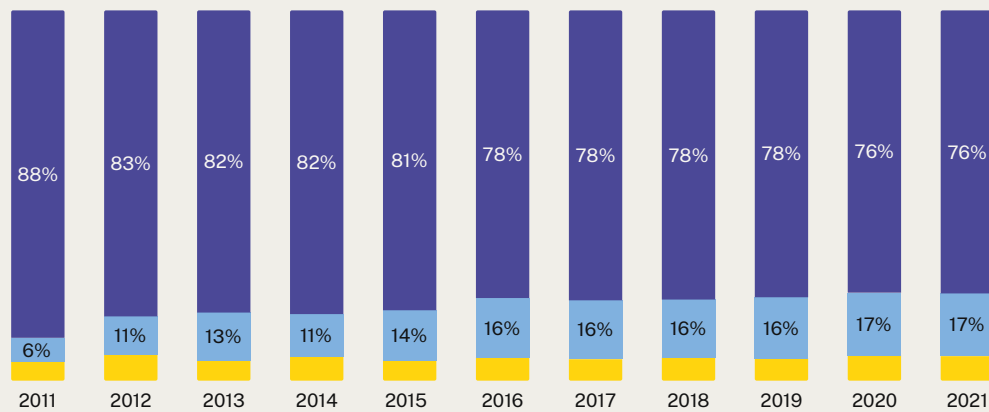
7.1 Number of deals since 2011, by sector



7.2 Number of deals and amount invested into fintech companies since 2011

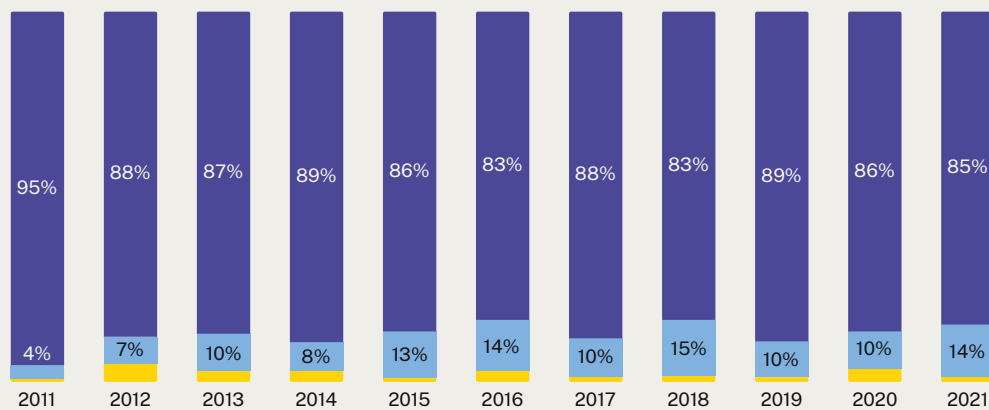


● Male-founded ● Mixed gender ● Female founded



8.1 Proportion of deals since 2011, by gender of founding team

● Male-founded ● Mixed gender ● Female founded



8.2 Proportion of amount raised since 2011, by gender of founding team

Founder genders

Companies with at least one female founder secured 24% of equity rounds in 2021, sustaining the record high achieved in 2020. Meanwhile, companies that have been solely founded by women secured 7% of deals.

In terms of the amount raised, the numbers are less optimistic. Although the proportion of pounds invested going to female-founded businesses has improved since we first started collecting data in 2011, the figures fluctuate far more than with deal volume. That's because

a handful of large deals can make a huge difference to overall figures.

There were a record 15 megadeals secured by businesses with a female founder in 2021 — more than three times the number secured in 2020 (4). This includes Vaccitech's £121m round, Starling Bank's £322m round, and Beckley Psytech's £58m round. Meanwhile, there were far more megadeals secured by all-male founding teams, despite only increasing by two times in 2021 — from 40 to 93.

9.1 Most active investors in 2021

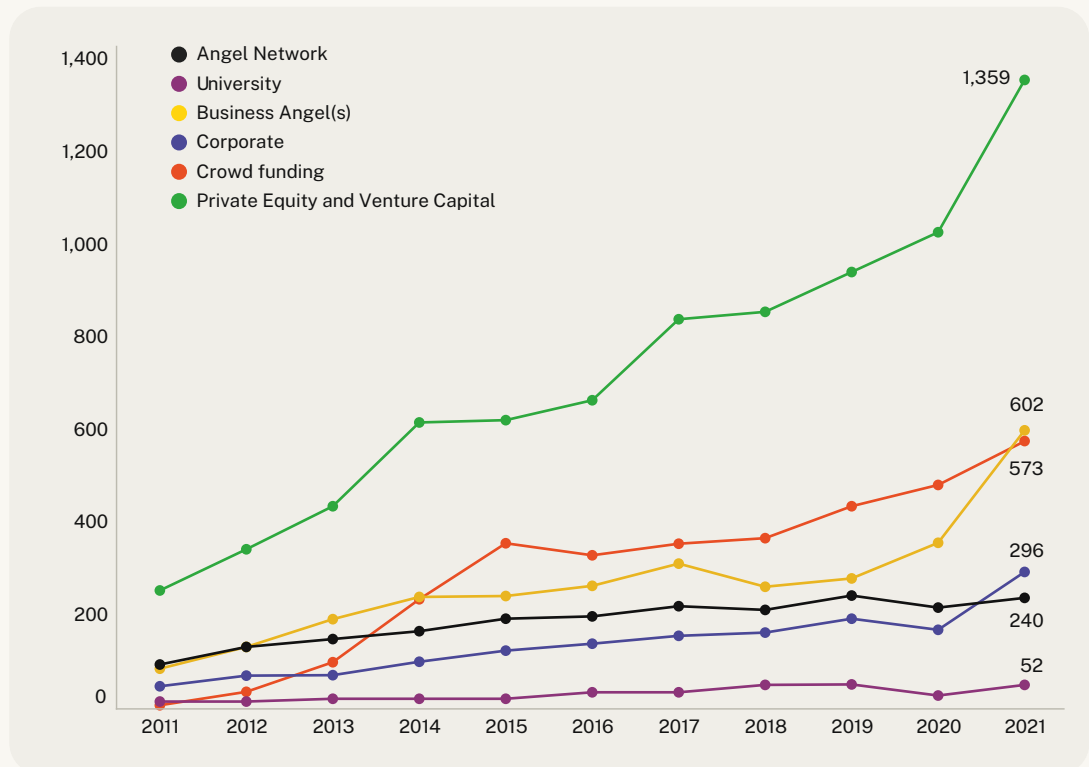


Investor types

All major fund types increased their investment activity between 2020 and 2021. Venture capital and private equity firms gained further ground over other categories, participating in 1,359 of the 2,679 rounds announced (51%). Individual angels climbed to second place, displacing crowdfunding to third.

As well as a genuine increase in angel activity, this trend is likely compounded by a growing desire for businesses to announce angel participation in their equity rounds. We're seeing an increasing number of high-profile, high-net-worth individuals whose names add further validation to a company's cap table.

9.2 Number of deals since 2011, by investor type



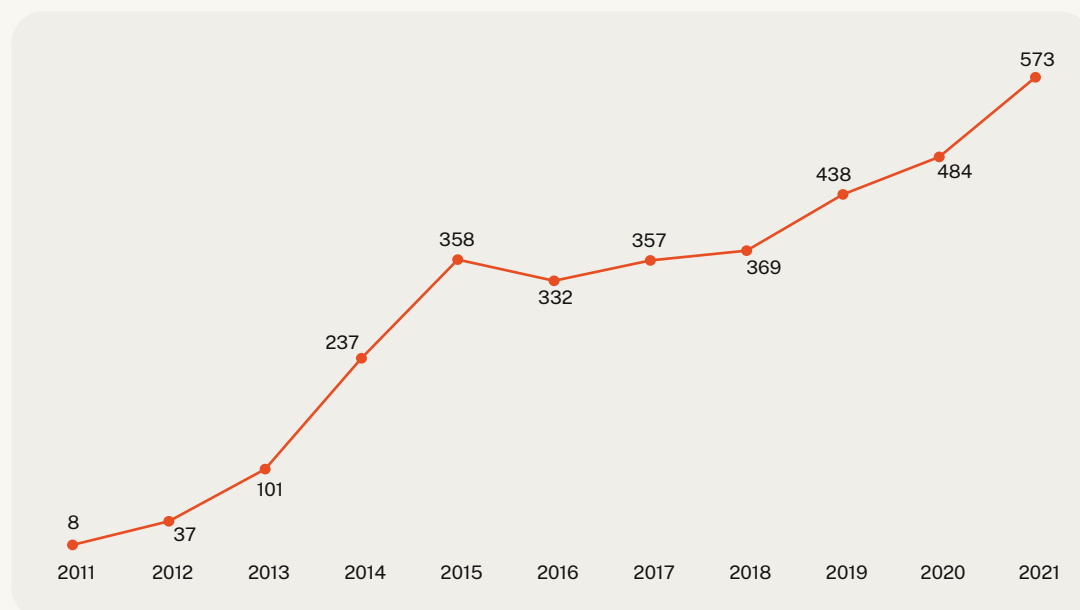
The crowd

We tracked 573 deals that included participation from the crowd in 2021, marking an 18% uptick since 2020. Crowdfunding remains an incredibly important part of the UK's early-stage funding market, with a median round size of £490k in 2021. With that said, the public is participating in larger and larger equity rounds, with a record 15% of deals last year worth more than £2m.

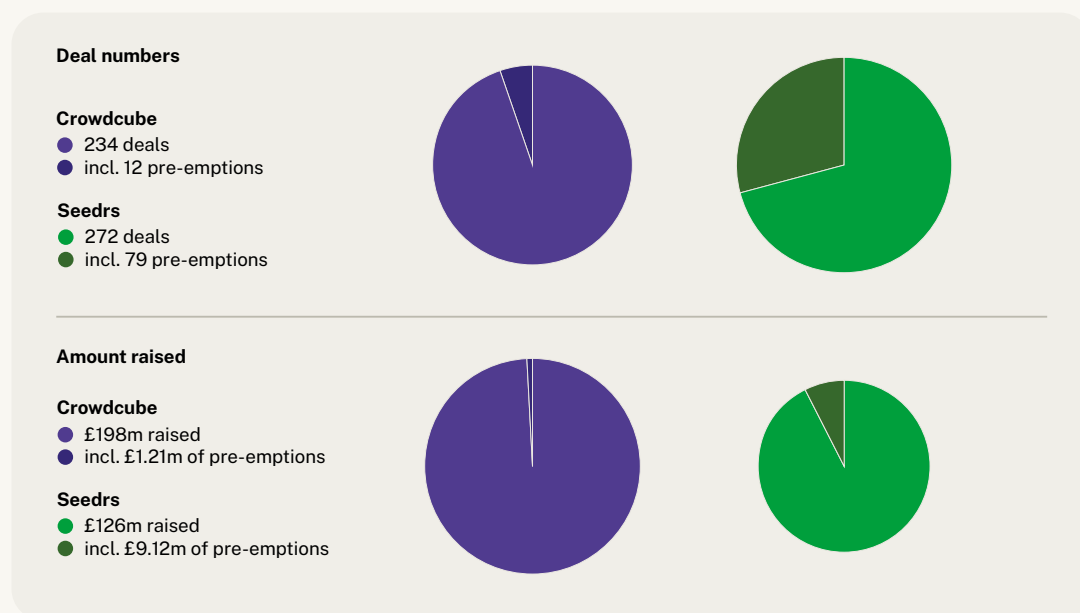
The largest round to have involved the crowd in 2021 was PaySend's £91m raise, which included £167k of investment via Seedrs.

The UK's leading platforms, Seedrs and Crowdcube, were the country's most active facilitators of investment in 2021, with 272 deals (worth £126m) and 234 deals (worth £198m), respectively.

10.1 Number of deals involving crowdfunders since 2011



10.2 Number of deals and amount raised in 2021, by crowdfunding platform





The Hedge Fund-ification of Venture Capital

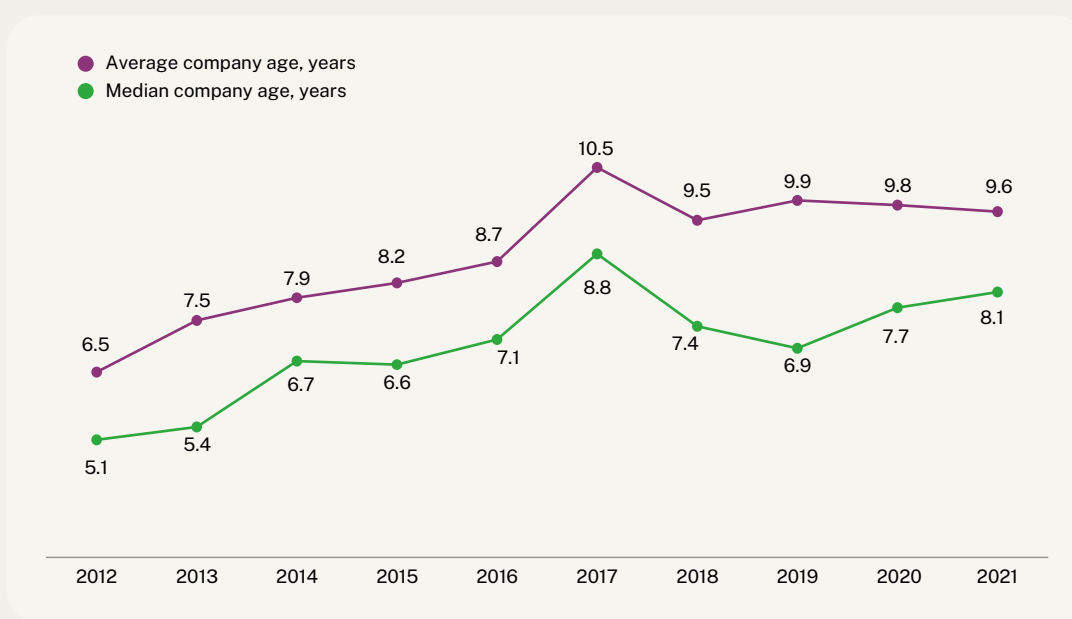
Dan Robinson

Last year was a record for equity investment in the UK, both in terms of the total amount invested and the number of deals. This increase in private market activity was repeated around the world as economic stimulus measures drove investors into riskier assets. Amid the frenzied shovelling of cash into private companies, some investors were behaving in new and intriguing ways. It seems that the traditional 10-year venture capital fund lifecycle may finally be going out of fashion. Beauhurst data can help shed light on why this is happening and why venture capitalists are facing more competition than ever before for deals.

In the book “VC: An American History”, Harvard Business School professor Tom Nicholas locates the emergence of the venture capital

model in the approach to capital deployment that came to prominence with the rise of the American whaling industry in the 18th and 19th centuries. While the following 100 years or so saw the emergence of innovations such as the limited partner structure, Nicholas notes that the business model for venture capital has proved to be remarkably stable over time:

“...if one asks how exactly VCs do what they do, it is not clear that the answer today is much different from half a century ago. The dominant form of organization is still the limited partnership with an ephemeral fund life, even though this places constraints on the time scale of investment returns. Although there have been some organizational structure and strategy innovations, these have been paradoxically rare in an industry that finances radical change.”



11.1 Average time to exit from incorporation of first deal since 2012

Given the stability of the VC model through time, it was big news in the industry when US VC firm Sequoia Capital announced last year that it was moving to a permanent structure. In a Medium article announcing the shift, general partner Roelof Botha highlighted that the industry is stuck using a 10-year fund cycle that is no longer fit for purpose. Botha noted that founders' ambitions are not constrained to a 10-year period, so neither should Sequoia's. Botha's words echo those of Nicholas:

"Ironically, innovations in venture capital haven't kept pace with the companies we serve. Our industry is still beholden to a rigid 10-year fund cycle pioneered in the 1970s. As chips shrank and software flew to the cloud, venture capital kept operating on the business equivalent of floppy disks. Once upon a time the 10-year fund cycle made sense. But the assumptions it's based on no longer hold true, curtailing meaningful relationships prematurely and misaligning companies and their investment partners."

Beauhurst data over the last decade confirms that equity-backed companies in the UK are taking longer to achieve an exit. Both the mean and median number of years from

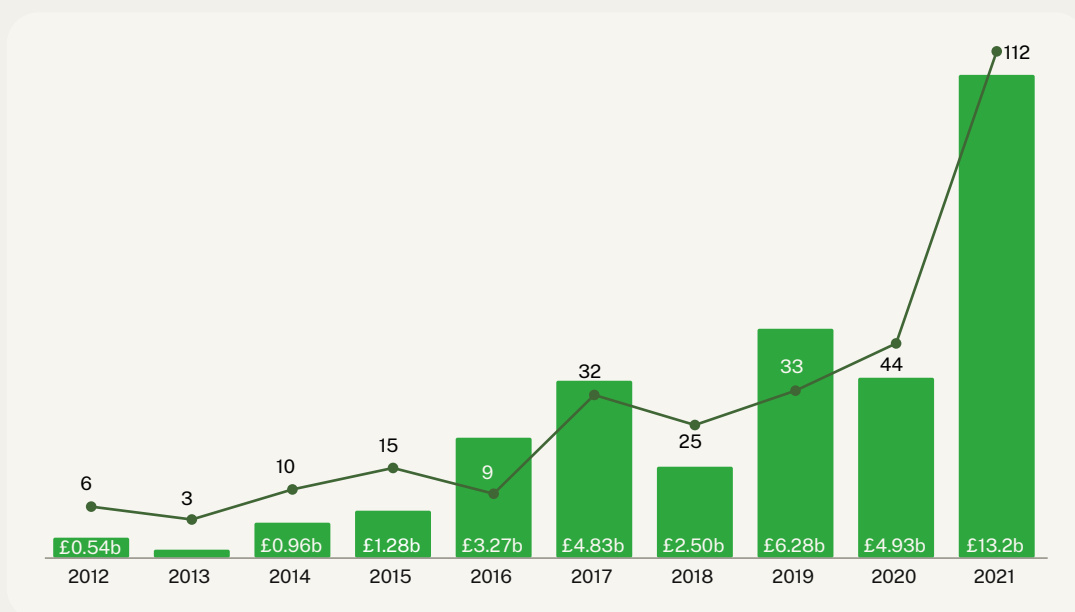
incorporation to exit for companies backed by private equity and venture capital firms have increased by around 50%. This shift among UK startups could be part of a global trend, causing the venture capital industry to reevaluate its business model.

Why is the average time until exit increasing?

The increase in time to exit could be indicative of longer commercialisation periods for startups as the UK ecosystem matures. Entrepreneurs have arguably solved many of the easier problems that can be solved via software or web-enabled business models. Companies may, therefore, be taking longer to achieve product-market fit and reach the scale and sustainability that make them attractive acquisition targets or suitable IPO candidates.

Changing dynamics in capital markets could also be playing a role as founders may be able to tap increasingly large sums of capital while keeping companies private and achieving a level of liquidity without a full exit. For many years we've noted the rise of megadeals — rounds where the invested amount is equal to or greater than £50m.

11.2 Number of megadeals and amount raised since 2012



10 years ago, most companies could only hope to access such sums via public markets, but now megadeals are relatively commonplace, with a record 112 completed in 2021.

With so much capital available, VCs are also letting founders take chips off the table — allowing them to release some of the value of their shares via secondary transactions, without an exit event.

We know, anecdotally, that the number of secondaries occurring alongside primary transactions is increasing, though the full

extent is still unknown due to difficulties separating the two in the data.

Both these factors — the increasing availability of private capital and more options for founder liquidity — could be increasing the time until exit for equity-backed businesses. It may be that the confluence of these factors with increasingly lengthy technology and commercialisation cycles are causing companies to require more time to exit, pushing startup lifecycles beyond the traditional 10-year timescales that most VCs — and their limited partners — are familiar with.

10 years ago, most companies could only hope to access such sums via public markets, but now such deals are relatively commonplace

Increasing competition

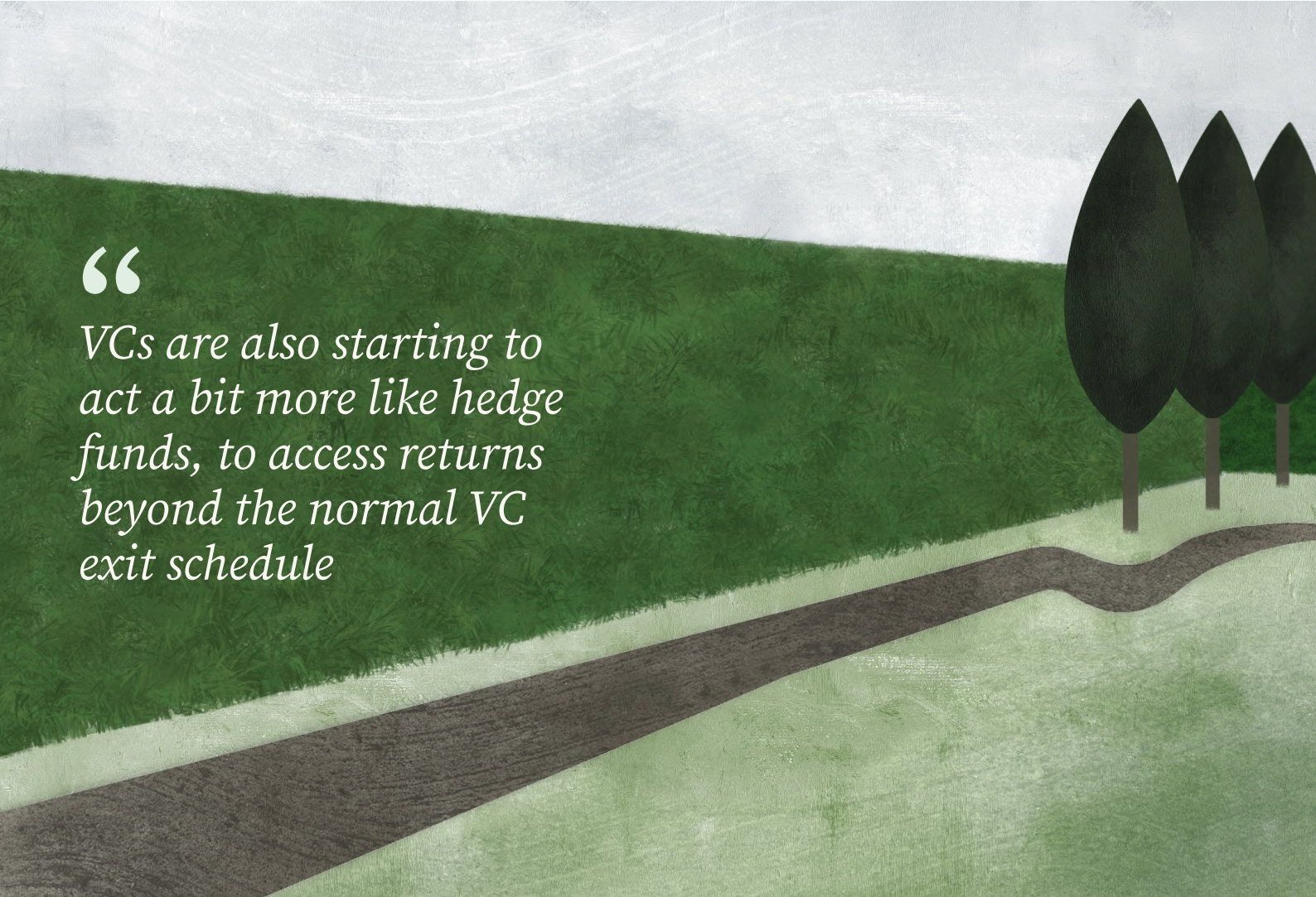
While the changing behaviour of companies may be driving the reevaluation of the VC model, another factor at play is the increase in competition for equity stakes in private businesses. The number of new entrants providing equity finance to private UK businesses has been on an upward trajectory since Beauhurst started collecting data more than a decade ago. In particular, the last five years have seen over 500 new backers become active in the UK market each year. This gives founders far more options for securing finance and means that VCs must compete more aggressively with their peers and other potential backers to win deals.

The emergence of super allocators like SoftBank and Tiger Global makes more sense in an increasingly competitive environment. As Everett Randle, Principal at Founders Fund, lays out in his popular article on Tiger Global,

the hedge fund has developed an attractive offering based on speed of capital deployment, high valuations, and light due diligence that traditional VCs will struggle to match.

So, while hedge funds are acting a bit like VCs to access startup returns, VCs are also starting to act a bit more like hedge funds, to access returns beyond the normal VC exit schedule. Consider some of the changes accompanying Sequoia's new fund structure, as outlined by Botha:

"As part of this change, we are also becoming a registered investment adviser. This expands our flexibility to support our portfolio companies through various financing events, such as secondaries or IPOs. It also enables us to further increase our investments in emerging asset classes such as cryptocurrencies and seed investing programs."



“

VCs are also starting to act a bit more like hedge funds, to access returns beyond the normal VC exit schedule

As a result of the changes at Sequoia, the firm will be able to invest in other asset classes beyond private equity and without defined exit horizons. Becoming a registered investment advisor with the US Securities and Exchange Commission means that Sequoia will no longer be bound by venture capital rules that require it to keep 80% of its assets in private companies. This step allows it to hold stakes in listed portfolio companies over the longer term. In effect, Sequoia has taken steps to make itself more like a hedge fund.

to hold onto stakes in portfolio companies even after they IPO. This could enable such VCs to benefit from significant public market uplifts in the value of portfolio companies that their more traditional peers are unable to tap.

The competitive dynamics of venture capital are changing — firms like Sequoia may be the vanguard of a new type of VC investing. Many VCs may soon be facing the same pressures as the companies they fund: adapt or die .

In the UK, 2021 was a record year for IPOs by equity-backed growth companies. High valuations driven by the increased relevance of tech during the pandemic, retail investor activity, economic stimulus measures, and changes to listing regulations have made public markets more attractive to companies and their backers. By shifting to more flexible structures, a new breed of VC firms will be able

11.3 Number of funds investing in a UK business for the first time since 2012





Cleantech Investment Finds Renewed Energy

Lucy Wilson

In 2021, the UK witnessed the highs and lows of the COP26 UN Climate Change Conference in Glasgow, a country-wide energy crisis, and a spate of public protests calling on the Government to take stronger action against climate change. At the same time, globally, H1 2021 saw record levels (£48b+) of investment into clean technology¹.

But what about in the UK, the world's third largest market for cleantech investment from VCs, behind the US and China?

As politicians increasingly turn their attention to green technology and its place in the global climate agenda, so too have investors. We're seeing very positive signs of progress in the

UK market, as both the number and value of announced equity deals secured by cleantech companies continues to grow. This trajectory has been particularly strong since 2018.

Whilst amount raised in the sector dropped off slightly in 2020 — in line with wider trends amidst the COVID-19 pandemic — it has massively rebounded since. Between 2020 and 2021, we saw an impressive 50% increase in pounds deployed to the UK's cleantech sector, landing on £945m raised. Meanwhile, the number of cleantech deals announced grew from 114 to 168, marking a rise of 47%.

On both counts, Q4 2021 was the best quarter on record for cleantech investment in the UK — an impressive £455m was secured by companies in the sector, across 47 equity rounds.

Startups see green across the country

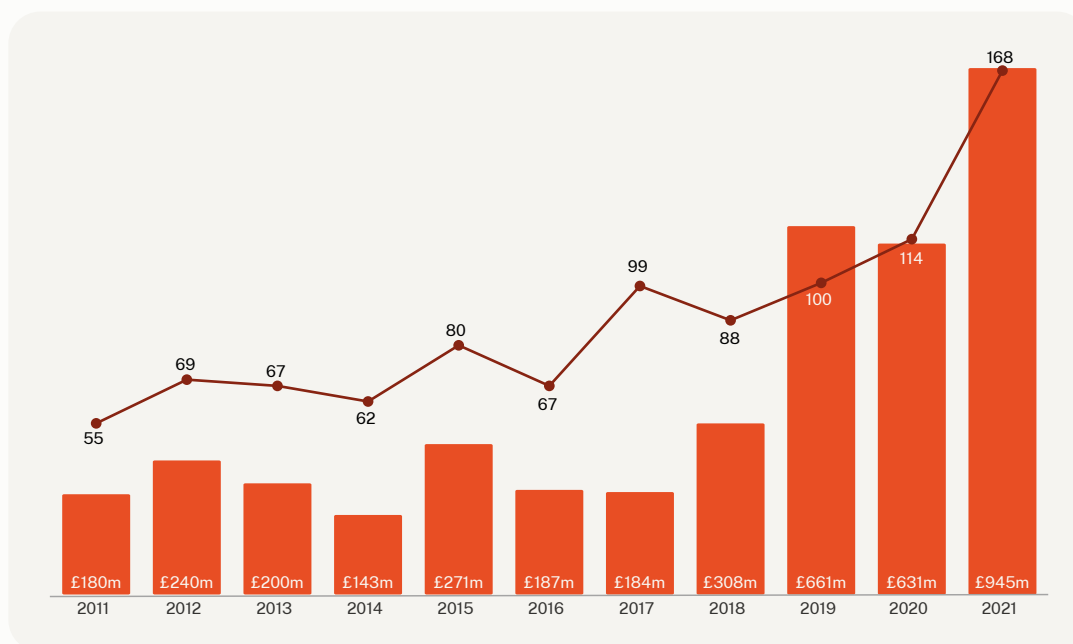
With investors participating in more deals and putting more money behind climate change solutions than ever before, where in the UK is this funding going?

One of the biggest startup success stories of 2021 was Britishvolt, the Northumberland-based cleantech firm that designs and manufactures sustainable lithium-ion batteries,

primarily for use in electric vehicles (EVs). Founded by Swedish entrepreneur Orral Nadjari and incorporated on the final day of 2019, Britishvolt surpassed the billion-dollar valuation mark in August 2021. In doing so, it joined Arrival and OVO in the herd of UK cleantech unicorns, at less than two years old.

Meanwhile, seven cleantech companies announced equity deals worth over £25m in 2021. And, unlike the broader UK equity market, the sector's largest rounds were not overwhelmingly London-centric. Headquartered in Bristol, electric aviation firm Vertical Aerospace raised £149m in October, before listing on the NYSE via a SPAC merger in December. Meanwhile, Essex-based Tevva Motors secured £42.5m in November, to accelerate production of its extended range electric vehicles (EREVs) for customers by the end of 2022.

Unlike the broader UK equity market, the sector's largest rounds were not overwhelmingly London-centric



12.1 Number of deals and amount invested into cleantech companies since 2011



5 biggest cleantech deals of 2021



£150m Flexion Energy

Flexion Energy develops and operates large-scale energy storage infrastructure.

Head office location: **London**

Date of raise: **July 2021**

Participating funds:

GLIL Infrastructure



£149m Vertical Aerospace

Vertical Aerospace develops electric aviation technology for urban air travel.

Head office location: **South West**

Date of raise: **October 2021**

Participating funds:

American Airlines, Avolon, Honeywell, Kourros, M12, Mudrick Capital Management, Rolls-Royce



£124m Plastic Energy

Plastic Energy develops chemical recycling technology to turn end-of-life plastics into feedstock.

Head office location: **London**

Date of raise: **November 2021**

Participating funds: **Axens, LetterOne, M&G Investments**



£42.5m Tevva Motors

Tevva Motors produces extended range electric vehicles (EREVs) for the urban delivery market.

Head office location:

East of England

Date of raise: **November 2021**

Participating funds: **Undisclosed**



£42.2m Intelligent Growth Solutions

IGS develops IoT-enabled vertical farming technology for indoor agriculture.

Head office location: **East of Scotland**

Date of raise: **November 2021**

Participating funds: **AgFunder, Cleveland Avenue, COFRA, DC Thomson Ventures, Ospraie Ag Science, S2G Ventures, Scottish Enterprise and angel investors**

Meanwhile, Scotland is also proving an emerging hub for green innovation, currently home to 11% of the UK's high-growth cleantech companies. According to The Scottish National Investment Bank, "Scotland has long held an international reputation for expertise in the energy market, which means it is well-positioned to develop innovative technologies in the cleantech space."

The Bank was set up in November 2020 to address long-term challenges facing the region, including supporting its transition to net zero by 2045. The Bank explains that, "given the increasing focus on developing solutions to tackle climate change, and Scotland's potential role within that, cleantech is clearly an area where we see huge potential". It sees the energy transition "as a clear economic opportunity for Scotland, both in terms of the domestic market and export potential for the nation's SMEs."

Indeed, two of the biggest deals in cleantech last year went to businesses based in the region: Edinburgh-based urban farming venture Intelligent Growth Solutions (£42.2m) and Glasgow-based vegan protein producer ENOUGH (£35.9m).

The crowd seeks climate action

Most of these big ticket deals saw participation from foreign investors, primarily US and French funds. But while foreign investors deployed the most capital to cleantech companies in 2021, the sector's top funders by number of deals were all UK-based. These include SFC Capital, Turquoise International, The Scottish National Investment Bank, Scottish Enterprise, and Edinburgh-based Par Equity.

It was crowdfunding platforms, however, that took the crown as cleantech's most active investors last year, with 23 announced equity deals facilitated by Crowdcube, and 18 by Seedrs. According to Crowdcube's Q4 2021 shareholder update, "as the climate change conversation got louder through 2021, particularly around COP26 in November, we saw increasing demand for cleantech and sustainability investments" from the crowd.² Alongside climate change protests and strikes, the public is now proactively coming together to finance the next generation of green technologies themselves.

The prevalence of crowdfunding, early-stage investors and government funds in cleantech funding is unsurprising given the relative immaturity of the sector — 35% of deals in 2021 went to companies operating at the seed stage, and 48% to those at the venture stage, with just 17% reserved for later-stage firms. Perhaps less expected, however, is the lack of purpose-driven funds in the ranks of top investors.

Indeed, what used to be a niche sector in the UK, that predominantly attracted impact investors, is now attracting more mainstream funds. Cleantech is quickly becoming a priority for regional funds, as well as those in the energy, utilities and infrastructure space, following the crowd in future-proofing their investments.

The Scottish National Investment Bank "expects cleantech investment to continue to grow this year, as more institutional and private investors see the opportunity in financing what will likely be cornerstones of how business operates in the future." The Bank also notes "seeing a build in momentum behind impact-related reporting and disclosure which we anticipate leading to more investors looking at how they proactively manage their exposure to impact-type risks."

Meanwhile, Natasha Jones, Early-Stage Investor at Octopus Ventures, tells us: "Over the next 30 years, every business, within every industry, will need to transition to net zero carbon emissions. Best estimates put the level of investment needed to achieve this at \$5-7 trillion. This astonishing target will simply not happen without entrepreneurs — and the investors who back them — mobilising technology in innovative ways. The VC community is waking up to this huge opportunity."

The public is now proactively coming together to finance the next generation of green technologies themselves

2. <https://www.crowdcube.com/explore/blog/crowdcube/crowdcube-q4-2021-shareholder-update>

UK cleantechs find their niche

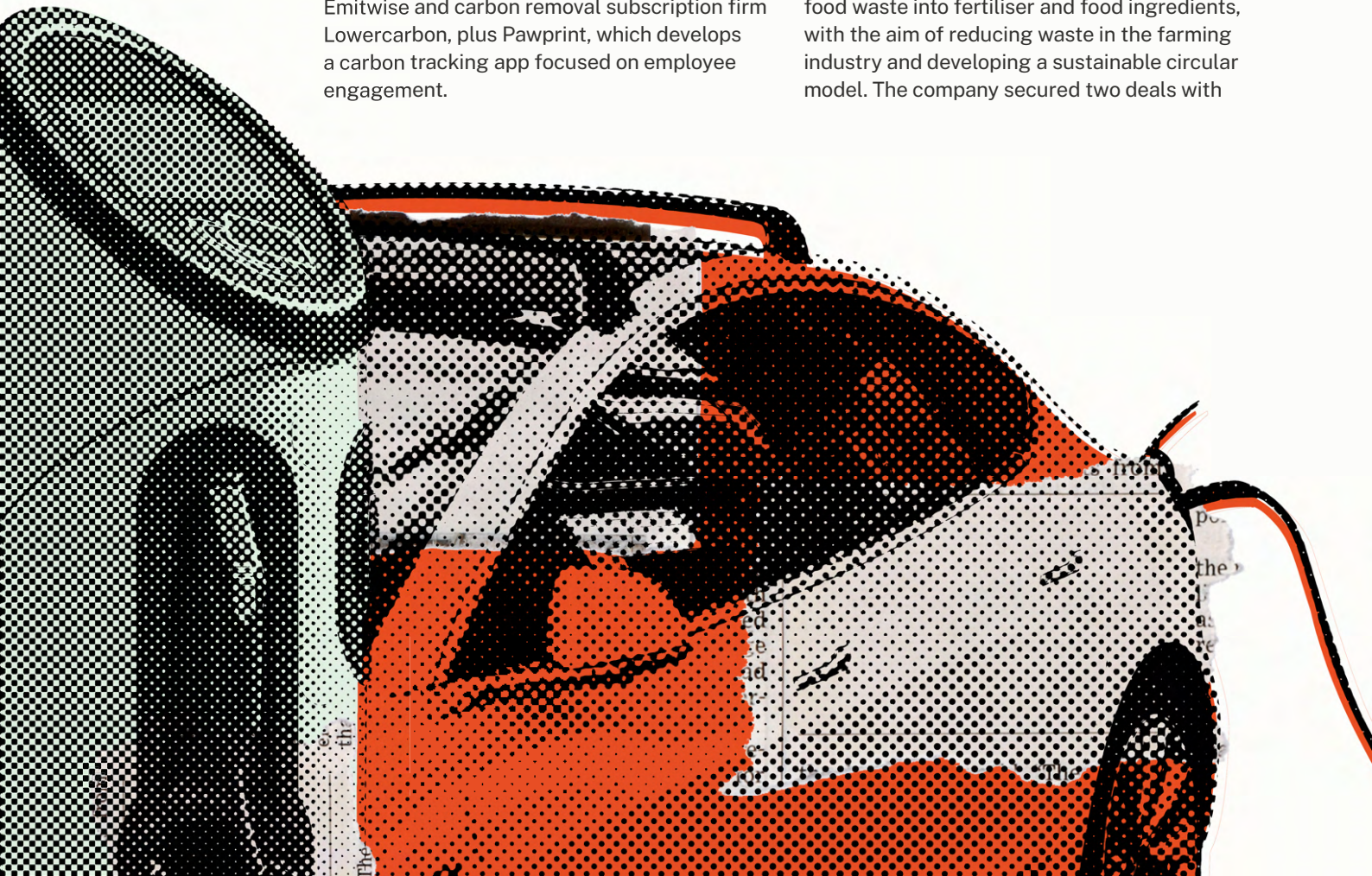
According to Natasha, “with growing pressure from consumers, governments and regulators, all types of businesses are seeking ways to reduce their emissions. In the UK, for example, 45% of the FTSE 100 have made some sort of net zero pledge. However, research also shows that only 16% have a strategy to realistically meet their commitments. Carbon accounting software providers are seen as the wedge to engage businesses in their climate impact, incentivise green behaviour and investment, and provide meaningful pathways for companies to achieve net zero.”

Carbon accounting, that is the quantifying and tracking of greenhouse gas emissions, will no doubt be central to global decarbonisation efforts in 2022. So it's no surprise that we're seeing a growing number of high-growth UK companies in this space. One such company is Pledge, which builds carbon tracking tools for businesses seeking to measure, reduce and offset carbon emissions across their supply chains. Founded in March 2021 and based in London, the seed-stage startup secured its first fundraising in October, worth £3.27m, to roll out its B2B carbon tracking software. Similar ventures that raised funding in 2021 include carbon accounting platform Emitwise and carbon removal subscription firm Lowercarbon, plus Pawprint, which develops a carbon tracking app focused on employee engagement.

Companies like these are mostly directing their tech towards business customers, addressing organisational sustainability goals, such as ESG targets, the cost of carbon, and stakeholder engagement. But we're also starting to see more cleantech innovations targeted at the individual, such as within the EV market, with EV charging now carved out as an industry vertical of its own.

For instance, both char.gy (in London) and Forev (in Edinburgh) are developing charging points for electric vehicles — char.gy raised £6.4m from the government-backed Charging Infrastructure Investment Fund in June 2021, whilst Forev secured £2m from The Scottish National Investment Bank in July. Then there's Bonnet, whose app enables drivers to find electric charging points. Bonnet secured £950k in funding from APX, Ascension and Imperial College Innovations Fund in August, to expand its operations, chargepoint offering and network partnerships.

Another area of cleantech capturing investor interest is agritech, in which technology is being developed to make farming more efficient and sustainable. Elemental is one example, having developed tech to convert food waste into fertiliser and food ingredients, with the aim of reducing waste in the farming industry and developing a sustainable circular model. The company secured two deals with





Crowdcube last year, in March and July, totalling £1.41m.

Likewise, crowd-backed Zero Carbon Food raised £5.63m via two equity rounds of its own, to further develop its controlled environment farms. These carbon-neutral sites use redundant underground spaces to produce plants with LED lights and hydroponics (i.e. no soil required). The company is also tapping into several innovation grants, awarded to support its vertical farming research and development.

A word on COP26

Despite increased government and VC investment in cleantech, and all the innovative technologies being developed, more collaboration is needed to help limit global warming to 1.5 degrees. In November last year, COP26 brought together leaders, delegates and media from around the world, culminating in the signing of the Glasgow Climate Pact by 197 countries. But alongside a number of shortcomings, including the watering down of emissions-cutting pledges from some of the largest industrial nations, commentators also noted the lack of startups at the conference.

COP26 saw tens of thousands gather to share ideas and propose solutions to the climate crisis. Outside of negotiations taking place in the Blue Zone, to which only accredited politicians, NGOs and activists had access, public exhibitions and talks were held in the

Green Zone by organisations fortunate enough to secure a spot — including cleantech startups.

But one wonders, without a seat at the table (or a spot to stand in the VIP zone), how are cleantech companies meant to help fight the climate emergency? The lack of VC presence and conversation around impact investing at COP26 was equally alarming. As a nation, we have the technology required to accelerate change. The more funding our cleantech startups can secure, the more likely they'll be to scale, attract new talent and investors, displace environmentally unfriendly incumbents, and be called on to advise on future political decisions.

Where to next?

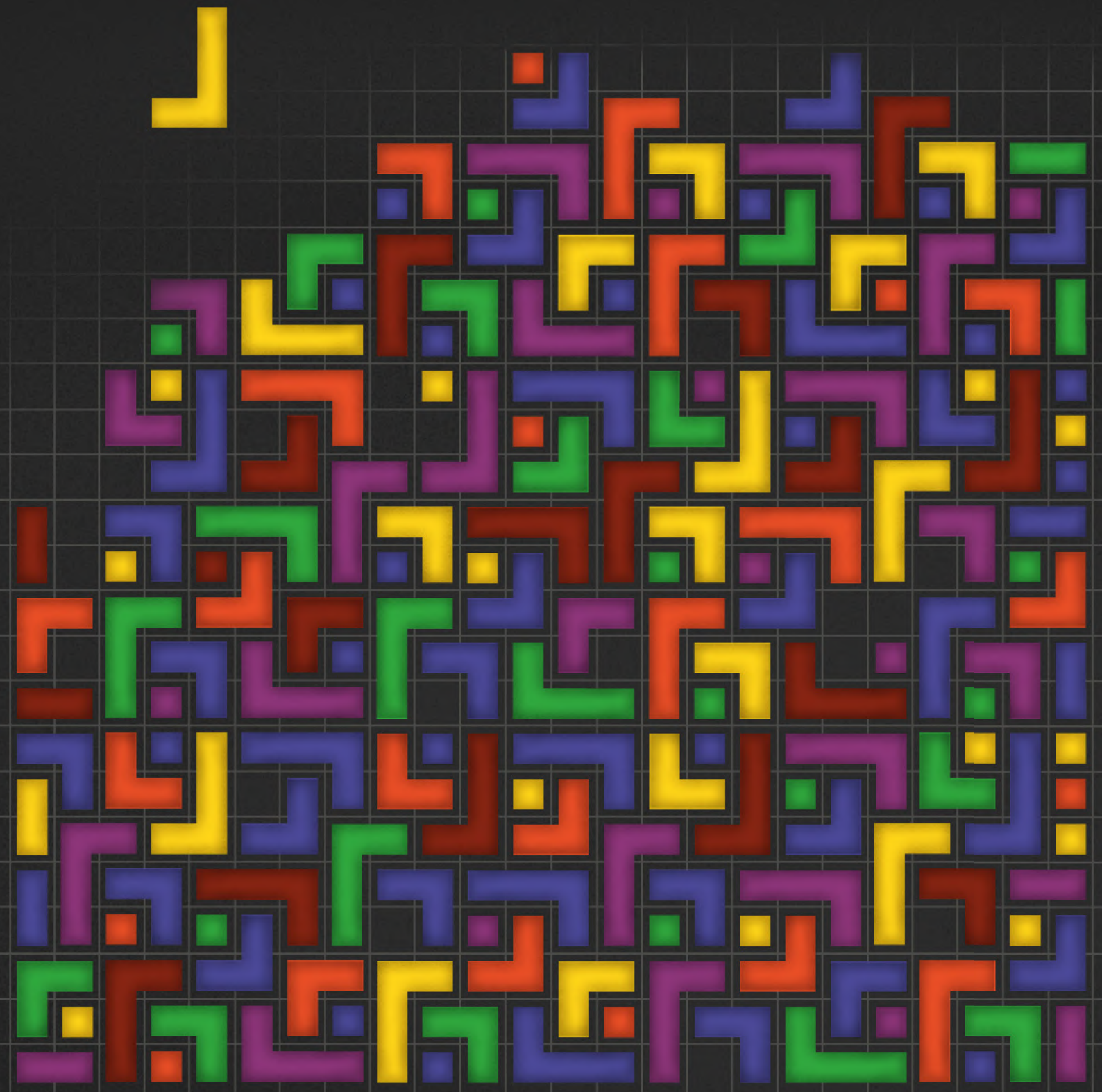
In his annual letter to CEOs this year, BlackRock's Larry Fink made clear that "the tectonic shift towards sustainable investing is still accelerating...The next 1,000 unicorns won't be search engines or social media companies, they'll be sustainable, scalable innovators — startups that help the world decarbonize and make the energy transition affordable for all consumers."³

So, whilst more work is needed to ensure cleantech entrepreneurs get the backing and influence they need to make a difference, we have high hopes for 2022. Whether it's vertical farming or EREVs that become the next big thing, we're optimistic it will be another stellar year for UK cleantech investment and innovation 

3. <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

Rolling the Dice on Gamification

Freya Hyde



From digital health technology to remote working software, many industries have rapidly expanded in the last two years, with obvious links to the onset of the COVID-19 pandemic. Almost unheard of a decade ago, one emerging sector (with ballooning investment in 2021) is gamification: the use of gaming dynamics in non-game environments to increase participation and engagement.

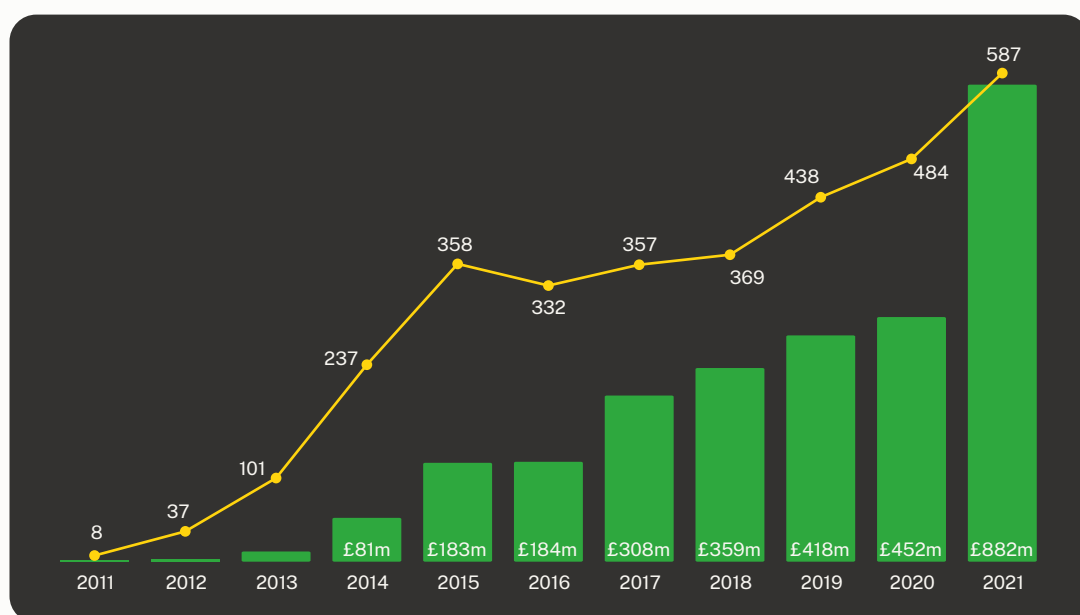
Certainly, the offerings of gamification companies are relevant to the altered ways in which we live, work, socialise and take care of our health, as a result of the pandemic, and investors and grant-awarding bodies are fully aware. Private companies operating in the industry raised a combined £226m worth of

announced equity deals in 2021, compared to £39.2m in 2020. But was COVID responsible for investors' significantly increased interest in gamification, or was it due to happen anyway?

Gamification since the pandemic

Health and fitness app Magic Mountain uses gamification and group socialisation to motivate users to reach their exercise goals. Investors have backed the company in unannounced deals worth £468k in August 2020 and £644k in April 2021 – perhaps conscious of its pandemic-related potential. Previously in July 2020, Innovate UK granted the company £74.9k to support its goal of combatting sedentary living and feelings of loneliness, exacerbated by COVID-19.

13.1 Number of deals and amount invested into gamification companies since 2011



When national lockdowns exacerbated the country's mental health crisis, startups worked on innovations to improve quality of life. Launched in May 2020, Thymia develops mental health assessment and analysis software that uses facial microexpressions, speech patterns, and neuropsychology-based video games. The seed-stage business secured a £790k equity deal in June 2021 from Entrepreneur First, Form Ventures, Calm/Storm Ventures, and Kodori AG.

Meanwhile, two gamification companies raised equity deals of more than £50m in 2021. Both firms have undergone significant growth since the start of the pandemic. Yulife, a wellness-led life insurance company, with an app that rewards users for looking after their health, secured £50.7m of equity funding in July.

The other megadeal went to digital security firm Immersive Labs; it raised £53.5m in equity funding from Goldman Sachs Asset Management, Insight Partners, Menlo Ventures and Citi Ventures in June. The sector has experienced increased momentum since the start of remote working. Aiming to engage users and increase knowledge retention, Immersive Labs gamifies cybersecurity training with mechanics, such as through experience points, rewards and leaderboards.

Pre-pandemic growth of gamification

Despite the seeming entanglement of gamification to societal changes caused by COVID-19, it's likely the industry was always set to rapidly expand over the 2020s. When examining announced deals, the volume of investment in the sector has been firmly on the rise since the early 2010s. Equity funding rocketed 682% between 2013 and 2017 (from £6.6m to £51.6m), then a further 338% in 2021, landing on £226m.

Between 2012 and 2021, 88.5% of equity deals into gamification were secured by companies in the seed or venture stage. The young and high-potential nature of these businesses suggest that gamification is still in its infancy. Given gamification's overlap with other high-growth sectors like mobile apps, software-as-a-service, analytics tools and edtech, a year-on-year rise in the volume of investment is to be expected, regardless of the additional interest brought about by the pandemic.

As such a powerful means to interact with consumers, the gamification industry was set to explode in any case

Taking a chance on trading apps

Indeed, the application of gamification is rapidly spreading. In recent years, trading apps such as US-based Robinhood have surged in popularity, making retail investing an accessible hobby for the public. Not only are these apps easy to use, their promise of possible large financial gains, quick pace, and highs after lows can make them highly addictive, gamifying investing and incentivising casual users to keep trading. This has led to questions about the need for controls to safeguard inexperienced investors.

In March 2021, trading platform Invstr raised £14.4m from angels and funds Finberg and Ventura Capital. In addition to buying real shares, Invstr takes gamified investing one step further, offering 'Fantasy Finance' — a virtual portfolio of investments where users can compete against others in the style of a fantasy sports league. Also operating in the market is BullBear, a platform for investors of any level of experience to practise trading, which increases in complexity over time. The business took an unannounced equity investment of £146k in December 2019. Meanwhile, Trad3r's social trading app allows users to trade various entities from companies and sports teams to celebrities, with rewards for more valuable trades. Trad3r secured £1.20m from angels in October 2019.

Digital learning goes for gold

Gamification is also disrupting edtech, with companies at the intersection of the two sectors securing 66 announced equity deals between 2012 and 2021. With increasing engagement and absorption of content as primary objectives for any edtech platform, gamification is a natural fit for the industry.

Though COVID-19 may have suddenly increased demand for engaging remote educational technology, investor interest in gamified digital learning was already present. Between 2012 and 2021, the three edtech ventures that raised the most equity funding — Hopster, Memrise and MarcoPolo — secured a significant £43.9m between them.

2021 saw a number of gamification edtechs secure further rounds to their existing investments. Virti's immersive training facilities, helping professionals to prepare for high-pressure events like surgery, emergency response and military training, attracted a third round in 2021 worth £7.21m, after initial raises in 2018 and 2019. Meanwhile, Zzish, an edtech offering a gamified learning experience called Quizalize, among other educational software, raised its 11th equity round in 2021 — £926k from Crowdcube.

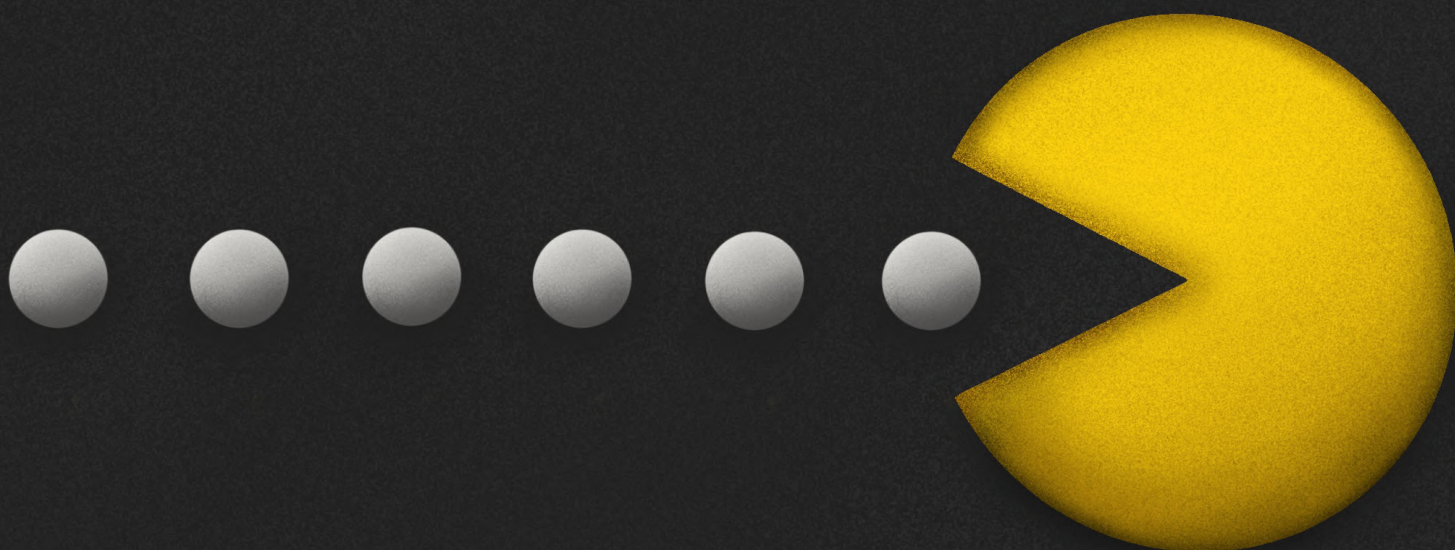
Super marketing bros.

Gamification's ability to increase engagement with content makes marketing and customer relationships another unsurprising industry in

which to see the phenomenon emerge. In 2021, loyalty and engagement platform Loyalty Lion raised £9m from Kennet Partners and other investors, while gamified customer advocacy programme developer Duel secured £463k from the Minerva Business Angel Network and SuperSeed. Using Duel, customers are rewarded for tasks that increase brand exposure, such as sharing branded posts on social media.

The outlook: it's all to play for

Overall, gamification has enormous potential across a huge number of industries. Gamified dynamics can increase a consumer's time spent engaged with a product and their motivation to return to it, and even influence their social behaviour and actions regarding their health and lifestyle. Although the world has spent even more time online in the last two years due to COVID-19, the gamification uptick is coincidental. As such a powerful means to interact with consumers, the gamification industry was set to explode in any case and it's likely to only continue emerging in new offerings of the innovation ecosystem .



Emerging Technologies To Watch in 2022

(According to VCs)



Alice Williams

Across the high-growth ecosystem, companies benefited from an increased investor appetite for funding in 2021. A handful of industries, however, really thrived. These emerging sectors are offering novel products or services, at a time when their audiences are well-positioned to engage, thus peaking investor interest.

We heard from a selection of investors, as they reflected on the past year and the emerging technologies that caught their attention the most — all showcasing significant growth over the past 12 months.

The future of work

“2021 has solidified the importance of looking at the future of work”, Chris Smith at Playfair Capital tells us, emphasising how businesses in this high-potential space have garnered interest from investors. The future of work is a broad sector, referring to technologies and services that reimagine the workplace, ranging from video calling programmes to employee wellbeing apps.

Although lockdown measures have been eased in the UK, and the Government is now encouraging a return to the office, the COVID-19 pandemic caused a shift in how we think about working. The future of work gained popularity as the concept of remote working became mainstream, and companies began recognising the potential benefits of workplace flexibility. For example, in March 2021, Spotify announced a work-from-anywhere scheme, embracing the idea of an international workforce. More recently, in January 2022 several UK companies embarked on a four-day working week trial monitored by academics at the Universities of Cambridge and Oxford.

Accompanying these changes was the opportunity for new solutions to be developed that help facilitate this shift and evolved workforce, as businesses reorganise their

operations. Companies building collaborative tools raised £157m across 39 fundraising rounds in the past year. Of specific interest to Chris was the rise of companies embracing a distributed workforce, and the technology emerging to support this: “these technologies have positive outcomes beyond enabling remote working, they level the playing field globally by allowing individuals living outside the country to access career opportunities in the UK.”

One exciting company aiding the move towards a distributed workforce is Omnipresent, which secured £11.6m in equity investment in a January 2021 funding round with Playfair Capital. The business provides outsourced compliance, payroll, and benefits services for international employees, simplifying the administration process of managing people remotely.

Meanwhile, when they launched in April 2020, Fit For Work was in the process of developing AI technology that responded to the challenges of remote working in high-risk environments across the rail and construction sectors. As the pandemic set in, the business quickly broadened the scope of its technology to provide software that improves the health, safety, and wellbeing of employees in other industries. The seed-stage company has attracted £251k in equity investment since making this transition, with its most recent funding round (in December 2021) secured at a pre-money valuation of £1.8m.

Investors have also been eager to back companies working to improve workplace communications. Element, for instance, secured £21.7m worth of equity funding in July 2021. The business develops an encrypted messenger service that facilitates collaborative working, with tools for file sharing, private group discussions, and internal or external messaging.

As companies continue to embrace flexible working and more software emerges to facilitate this transition, it's likely that investment into the sector will continue to grow (regardless of the Government's ever-changing COVID-19 policies).

The rise in popularity of middleware software corresponds with the growing complexity and opportunity found within the broader tech sector

Middleware software

Speaking to Natasha Jones at Octopus Ventures, she points to middleware software as another emerging sector in the UK, of particular interest to fintech investors. “These players lower the barriers to innovation from a technical perspective” she told us, and “we are seeing players begin to innovate in targeted sectors of the fintech stack”. The rise in popularity of middleware software corresponds with the growing complexity and opportunity found within the broader tech sector. By using middleware, companies are able to purchase software in the form of an API, that yields them functions without the heavy lifting required to build these internally.

Recognising the burden of meeting data compliance requirements and finding high-quality developers to work internally, the concept of outsourcing these functions through integrations has gained traction with many businesses. Indeed, companies building middleware software attracted £140m of equity investment in 2021, across 18 funding rounds, with the industry maintaining its momentum amidst the pandemic.

One area of middleware software that's seen particularly strong growth is banking-as-a-service. This technology enables fintechs to interact with banks, providing key infrastructure for their growth. With offerings such as account creation, payment processing, wire transfers and bill payments, banking-as-a-service has benefitted from — and to an extent supported — the fintech boom that's currently taking place in the UK.

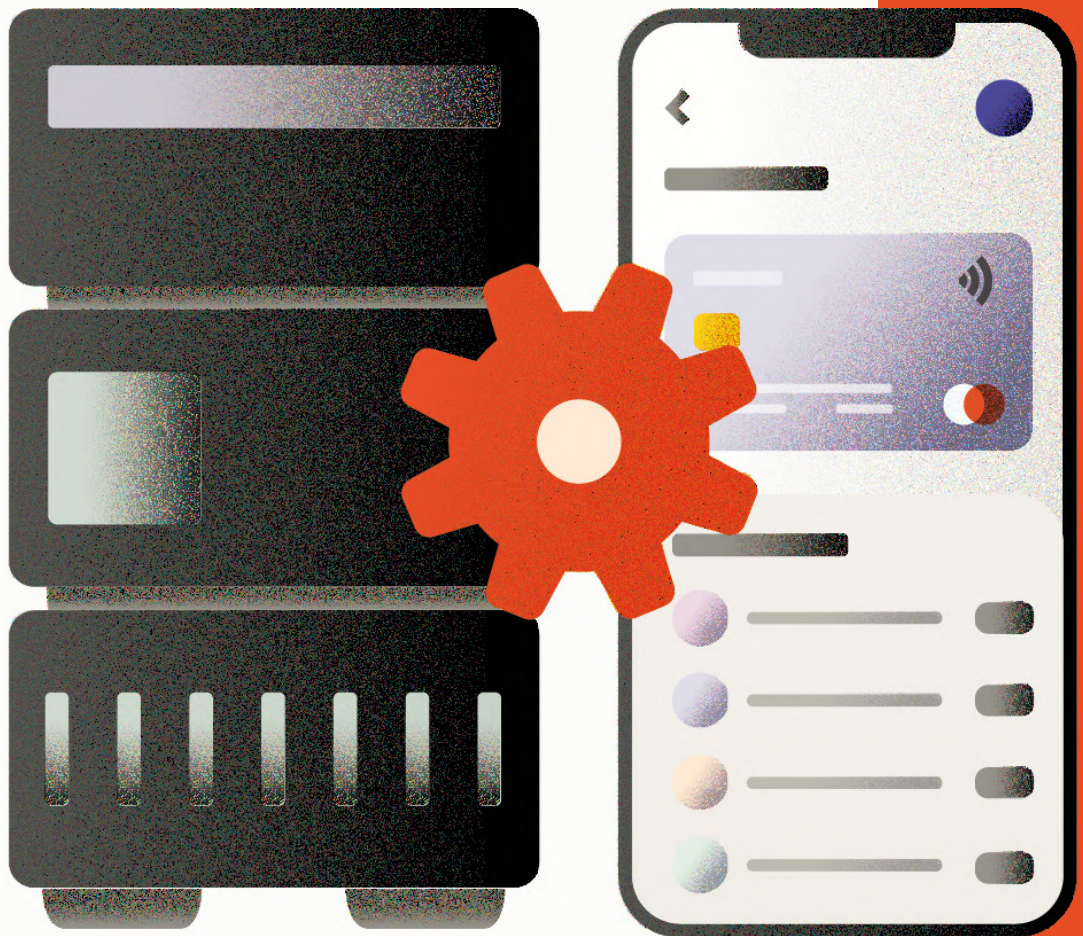
Businesses shaping the sector include Yapily, which has built open banking infrastructure that allows customers to connect with over 1,600 banks in Europe. This service delivers

a unified payment process across the continent, providing instant and fee-free transactions. Also working in the field is Integrated Finance — a company backed by Octopus Ventures — which helps companies streamline their integrations into a singular platform. This offering aims to replace the patchwork of API offerings many businesses navigate, making managing these programmes cleaner and easier.

Looking to the future, there are signs that blockchain will be the next industry for middleware software to tackle. In comparison with the 7m Python and 12.4m JavaScript developers out there, globally, the blockchain sector only has around 9k active monthly developers right now. Drawing on these figures, Natasha explains: “In this space, the barriers to entry are higher, so I’m looking closely at developer tools in blockchain that can speed up adoption and the development of new use cases with this technology”.

Artificial intelligence in the life sciences space

Speaking to Edward Reid at PwC Raise, he explains how “healthtech is, and will likely remain, a hot sector for UK deal making activity”. Investment into the life sciences sector, generally, has gained considerable momentum over the last decade, with world-leading research taking place in both commercial labs and academic institutions across the country. Whilst the rise in healthtech investment was somewhat predictable even before the pandemic, with emerging technologies in the highly-profitable



industry naturally drawing in investor attention, COVID-19 has spurred further innovation in the field and highlighted the need for medicine to become more digitised.

One technology that has solidified itself in the life sciences industry is artificial intelligence. Michael Treskow, a Partner at Eight Roads Ventures, explains how the mindset for investors backing AI in the healthcare industry has shifted. “10 years ago,” he explains, it “was all ‘imagine a world’ type investment, and nowadays there’s a product-market fit.”¹

And our data supports these conclusions, with the value of fundraisings hosted by companies working in the life sciences and artificial intelligence crossover increasing by 310% between 2020 to 2021. Contributing significantly to this rise were three funding rounds secured by Exscientia, a drug development firm that uses AI to design and test potential small molecule drugs, to discover

which molecules are most likely to make successful drugs. Having raised £209m in 2021, the business underwent an IPO in October, listing with a market capitalisation of £226m.

Although artificial intelligence has a range of uses in the life sciences sector, its most prominent has been to expedite drug discovery — a process that's recognised as traditionally being lengthy, risky, and expensive. Large pharmaceutical firms have embraced AI-powered technologies to streamline their operations, reducing R&D costs. AstraZeneca, for example, has successfully collaborated with BenevolentAI on two occasions to discover potential new treatments for Idiopathic Pulmonary Fibrosis and chronic kidney disease. BenevolentAI's platform draws on artificial intelligence and machine learning to provide a mass analysis of scientific data. The company has secured £253m of equity investment since launching in 2014.

Beyond drug discovery, artificial intelligence is also being applied to software aimed at improving the workflow and efficiency of

those working in the healthcare sector. ConcR, for instance, creates modelling software to identify and predict tumour progression, responding to findings in pre-clinical and clinical trials. The seed-stage business underwent two funding rounds in 2021, worth a combined total of £745k.

With innovation ripe in both healthcare and tech, and pharmaceutical firms looking to challenge tradition, whilst cutting costs, we expect the healthtech industry to continue its growth into 2022.

The emerging sectors capturing VCs' attention have successfully introduced new technologies into existing fields, providing innovative solutions to ongoing economic and social challenges. Whether this is achieved by creating software to connect and manage workforces, introducing blockchain technology to middleware, or merging pharmaceuticals with artificial intelligence, the companies and industries discussed in this piece will be ones to watch over the next twelve months .

Large pharmaceutical firms have embraced AI-powered technologies to streamline their operations



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