SFC Capital

Beauhurst

Seeding to Succeed:

The Seed Stage of the Ecosystem

Contents

Methodology and key terms

Methodology

Beauhurst identifies ambitious businesses using eight triggers (outlined at the bottom of this page) that we believe suggests a company has high-growth potential. More detail on Beauhurst's tracking triggers is available via our website.

EQUITY INVESTMENT
To be included in our analysis, any investment must be:

- Some form of equity investment
- Secured by a non-listed UK company
- Issued between 1 January 2011 and 31 December 2020

ANNOUNCED AND UNANNOUNCED FUNDRAISINGS
An unannounced fundraising is an investment made into a private company that is completed without press coverage or a statement from the recipient company or funds that made the investment. These transactions are an integral part of the UK's high-growth economy, accounting for around 70% of all equity transactions.

HIGH-GROWTH TRIGGERS

- Equity investment
- Academic spinouts
- Scaleups
- High-growth lists
- Accelerator attendance
- Major grant recipients
- MBO/MBI
- Venture debt

Key terms

SEED-STAGE
This is the first stage of evolution of a high-growth company and refers to a young company with a small team, low valuation and little funding received. The company may also still be working on its product-market fit or be in the process of getting regulatory approval. Funding at this early stage is likely to come from equity crowdfunding, business angels, via grants, or from the UK's small number of seed-focused investors.

INITIAL SEED-STAGE DEAL
A company's initial seed-stage deal is the very first round of equity investment it receives, taken in the seed-stage of evolution. This initial funding is vital for new companies, as it supports the first steps a business needs to make, such as developing a product or researching its market.

SEED-STAGE CAPABLE INVESTOR
This refers to an investor that is capable of investing at the seed stage due to having previously completed a seed-stage deal. The activity of investors that have demonstrated themselves capable of doing deals at the seed stage is important as it can help us to understand whether there is reduced investor appetite for early-stage deals.

EQUITY FUNDRAISING
Equity fundraising refers to the issuance and sale of new shares by a company and not merely the sale of existing shares. This is because new shares fund the growth and development of a company, while selling existing shares usually results in money flowing to the shareholders.

SEIS
SEIS stands for the Seed Enterprise Investment Scheme (SEIS) and is a venture capital scheme introduced by the UK government in 2012 to support early-stage companies. The scheme assists early-stage companies to raise funds by offering tax relief to individuals making investments in eligible companies.

Stephen Page, Founder and CEO at SFC Capital

Seed-stage investment is critical to enabling innovative new companies to get off the ground. Historically this funding has always been provided by angel investors. Until the introduction of the Seed Enterprise Investment Scheme (SEIS) in 2012, angels were mainly professional investors and often former entrepreneurs. There were relatively few of them, as a total volume of 620 first-time seed deals completed in 2011 illustrates. SEIS transformed the seed-funding landscape, providing the incentive (through tax relief) and convenience (through funds) for many more individuals to turn themselves into early-stage investors.

The result? Spectacular year-on-year growth in the number of first-time funding rounds into innovative new companies, peaking in 2018 at more than three times the pre-SEIS 2011 level. And a wave of innovation, propelling London and the UK to the top table as a place to start, fund, and grow a business. Before 2012, the UK had almost no startup incubator or accelerator programmes; today there are more than 100, with more every month. The UK has a flourishing startup and investor ecosystem, headlined by a growing herd of "unicorn" companies that recently welcomed its 100th member. Many of those companies—in sectors from fintech to medtech, biotech, and deeptech—got their first investment through SEIS. There's no doubt that SEIS both increased the amount of funding available and made it more accessible.

Some of the headline findings of this report are, therefore, worrying. Most notably, the number of first-time seed-stage deals completed in 2020 represents a fall of around 30% from 2018's peak level. Data for the most recent financial year is not yet available, but there are signs that SEIS deals specifically have fared better, declining by just 13% so far. There is, though, still cause for concern. Some of this decline—and any further dropoff that might become apparent once the latest data is revealed—can be attributed to the impact of COVID-19, from dented confidence to the changing dynamics of the investment landscape caused by the Government's introduction of the Future Fund and other financial relief programmes. But only some. The other reasons—notably, the fact that there seems to be less money available, and fewer specialist seed-stage funds equipped to deploy it—require further investigation. Together with Beauhurst we have attempted to provide a diagnosis of the problem and recommendations as to some potential solutions.

> *"In its obsession with growth funding, the Government is grossly underestimating the importance of seed-stage investment. After all, without it, where will those growth-stage companies come from?"*

We see there being two important levers to pull to arrest and then reverse the nascent decline in first-time seed-stage investment.

First, we need to do more to incentivise angels—whether professionals or simply wealthy or well-paid individuals who invest through funds—to take the risk of investing in innovative early-stage companies, in greater numbers and at larger volumes. The data shows that SEIS works, but also that it might be a limiting factor on seed-stage investment. Since SEIS was introduced in 2012, both the average size of a first-time seed round and the average time taken to raise it have hovered just below the limits baked into the scheme. So, along with better communication of how well the structure of SEIS mitigates investors' risk—only around 25% of their investment is actually at stake once various reliefs are taken into account—we are calling for both an increase in the SEIS funding cap from £150,000 to £250,000 and an extension of the qualifying period from two years to three. These and other reforms are described in more detail in the conclusion of this report.

Second, the Government needs to back up its rhetoric about "levelling up", "building back better", and creating a "science superpower" with real action that makes more public money available to support the growth of innovative startups. This report reveals the pivotal role played by publicly-funded investors such as British Business Investment (BBI) in driving up first-time seed-stage deal volume, with many such funds ranking among those to have done the most deals over the past decade. The Government must back these funds to the hilt. BBI's recent Regional Angels fund was just £100m compared to the astronomical size that the Future Fund eventually swelled to or the £375m allocated to its more structured "Breakthrough" follow-up.

In its obsession with growth funding, the Government is grossly underestimating the importance of seed-stage investment. After all, without it, where will those growth-stage companies come from? It doesn't understand SEIS—many ministers seem completely unaware of it. But if SEIS dies, innovation dies; it really is that simple. The UK currently punches well above its weight on the global innovation stage, but without the required support for early-stage companies, we could tumble down the league table with innovators stifled before they even get going. We want this report to be a wake-up call and a call to arms.

Henry Whorwood, Head of Research and Consultancy at Beauhurst

The decline in deals at the seed stage was a trend that we started to notice several years ago. Initially, we observed a decline in the growth rate for initial seed-stage deals. While more deals were being done each year, the rate of increase was declining; this seemed like a natural progression for the UK's ecosystem and a sign of its increasing maturity. However, since 2018 there has been a clear decline in the number of deals conducted at the seed stage—both in initial deals which are a company's very first source of equity finance and in subsequent deals conducted at this early stage.

This trend has been of concern to us at Beauhurst. Seed stage companies are the lifeblood of the UK's high-growth ecosystem. The possibility that fewer companies are starting or that there are fewer investors able to support them could have long-term repercussions for the UK's economy. Success stories like Darktrace, Deliveroo and Oxford Nanopore are all companies we've been tracking since the seed stage. The seed stage is a vital pipeline for delivering innovation, job creation and growth.

Unfortunately, there is significant complexity in unpicking the supply and demand dynamics of the equity finance market for these early-stage companies. Deals are in decline but company creation has been trending upwards for the last 10 years and has made a rapid recovery after the uncertainty of last year. So it seems that there should be enough young companies seeking finance. Other factors such as the rising popularity of bootstrapping alongside falling startup costs and the increased use of convertible notes complicate the picture. There have also been increases in support mechanisms for early-stage companies such as grants and accelerators and incubators that mean these companies may be less dependent on equity finance.

It was clear to us that, despite the complexity, a further study was warranted and SFC Capital stepped in to support the research. Thank you to Stephen Page and the rest of the team at SFC for making this report possible.

A key finding of the research was that initial seed-stage deals declined by 17% from 2,055 deals in 2018 to 1,715 deals in 2019. This was followed by a further 17% year-on-year decline from 2019 to 2020 when there were 1,427 deals. This dramatic trend is discussed in more detail on pages 4 and 5 of the report. It is all the more startling seen in the context of the last 10 years; initial seed deals increased every year from 2011 to 2018.

The data strongly suggests that changes to the Seed Enterprise Investment Scheme in 2018 may be responsible for some of the decline in initial seed-stage deals.

The median amount raised and the median time to raise from incorporation both fit within the eligibility criteria for the scheme, implying that the scheme exerts a strong influence over funding practices for these firms. Pages 7 and 12 look at these figures in more depth.

The Government's SEIS data also suggests that 2018 was a turning point. Though less dramatic, it shows a 12% decline in companies accessing the scheme for the first time between the tax year ending in 2018 when there were 1,865 deals and 2019 when there were 1,640 deals. Recently released data shows deal numbers held relatively steady in the 2019-20 tax year with 1,620 deals recorded.

Another key point that the research has revealed is that there may not be enough investors doing deals at the early stage. Though accounting for a small number of deals overall, initial seed-stage deals by angel networks and crowdfunding platforms have been in decline since 2015 (page 17). Analysis of new investors and new investments in the UK by outside investors shows that the number of new investors entering the market that are "seed-deal capable" is far outstripped by those focused at other stages (page 18).

Despite these findings, there are reasons to be positive. Company incorporations have bounced back following the worst of the uncertainty and lockdowns of the last year and reached record highs (page 11). Hopefully, many of these companies will go on to become growth companies of the future. As Stephen has highlighted, there is more that could be done to support access to finance for early-stage companies. While less important to the very earliest stages, the 2025-sunset clause for the Enterprise Investment Scheme (EIS) may mean the scaling businesses are less able to access support, unless the scheme is renewed. We hope that this report provides a foundation for further debate about the decline in seed-stage equity deals and how early-stage companies can be better cultivated and supported.

> *"Seed stage companies are the lifeblood of the UK's high-growth ecosystem. The possibility that fewer companies are starting or that there are fewer investors able to support them could have long-term repercussions for the UK's economy."*

Chapter 1:
Seed Stage Overview

This chapter provides an overview of seed-stage investment for UK companies including the amount invested, number of deals and top investors. It provides a foundation for the discussion of the decline in seed-stage deals in Chapter 2 and Chapter 3.

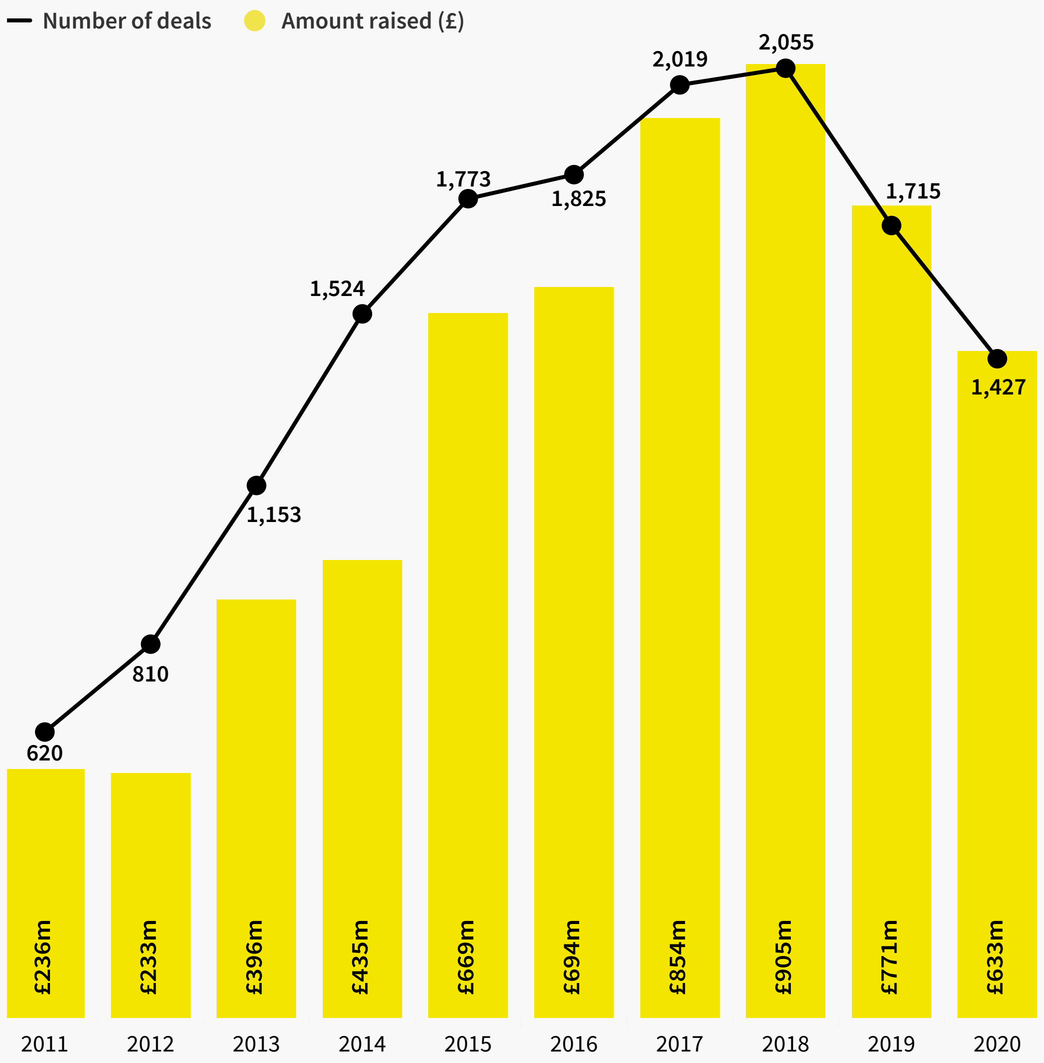
First-time seed-stage deals

Signs of entrepreneurial activity in the UK are perhaps the most promising they have ever been. The pandemic, though it has caused immense human suffering and economic damage, has sparked a wave of entrepreneurial activity. Entrepreneurs across the UK have adapted to the circumstances and are creating a range of innovative businesses. Company incorporations are at record highs.

Yet despite the recent entrepreneurial fervour, the UK has seen a decline in investment activity at the seed stage since 2018, particularly for initial deals. The causes of this decline in equity investment are unknown, although there are a number of potential candidates. In 2020, the pandemic and associated lockdowns will have had a dampening impact but the decline pre-dates this as the chart shows. It is likely that changes to the Seed Enterprise Investment Scheme (SEIS) in 2018 have had significant impact, an explanation that is explored in more detail throughout the report.

The report also explores other contributing factors. Are there fewer companies that are considered 'investable' by early-stage investors? Are more companies bootstrapping or accessing alternative forms of finance? Are there fewer investors active at the seed stage?

First-time deals by seed-stage companies (2011–2020)



£5.8b

raised across all first-time seed-stage deals 2011–2020

14,921

total number of first-time seed-stage deals 2011–2020

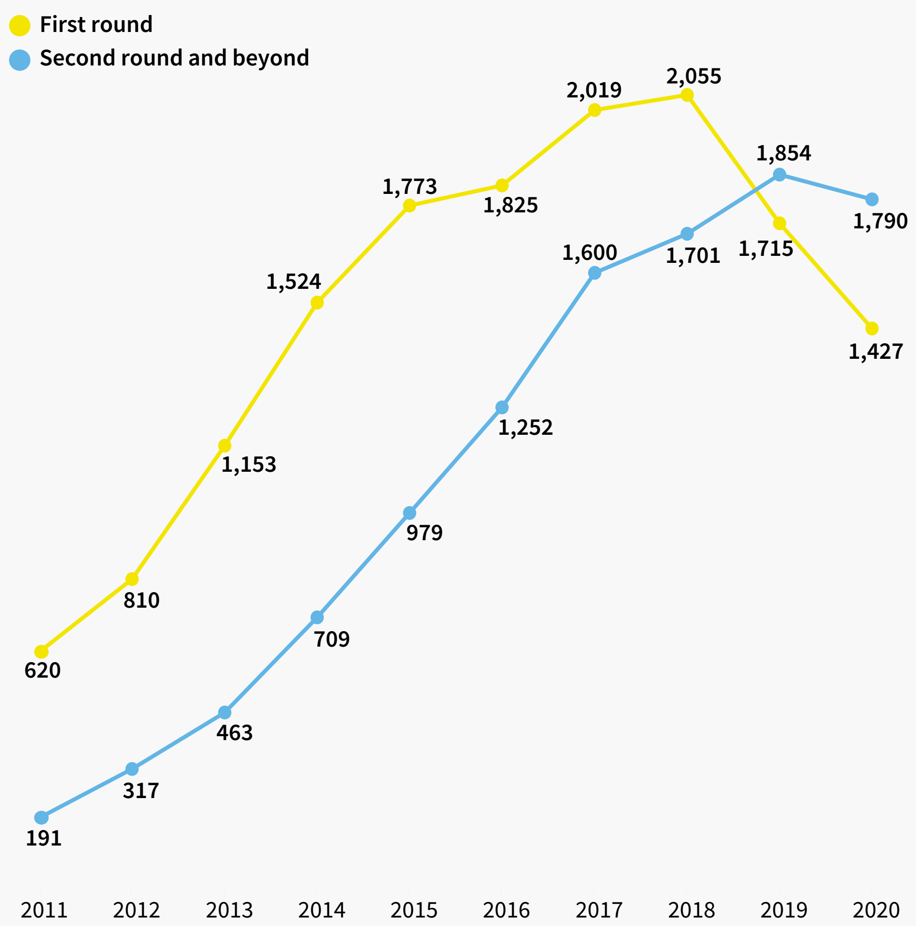
Seed-stage overview

Seed-stage deals by round number

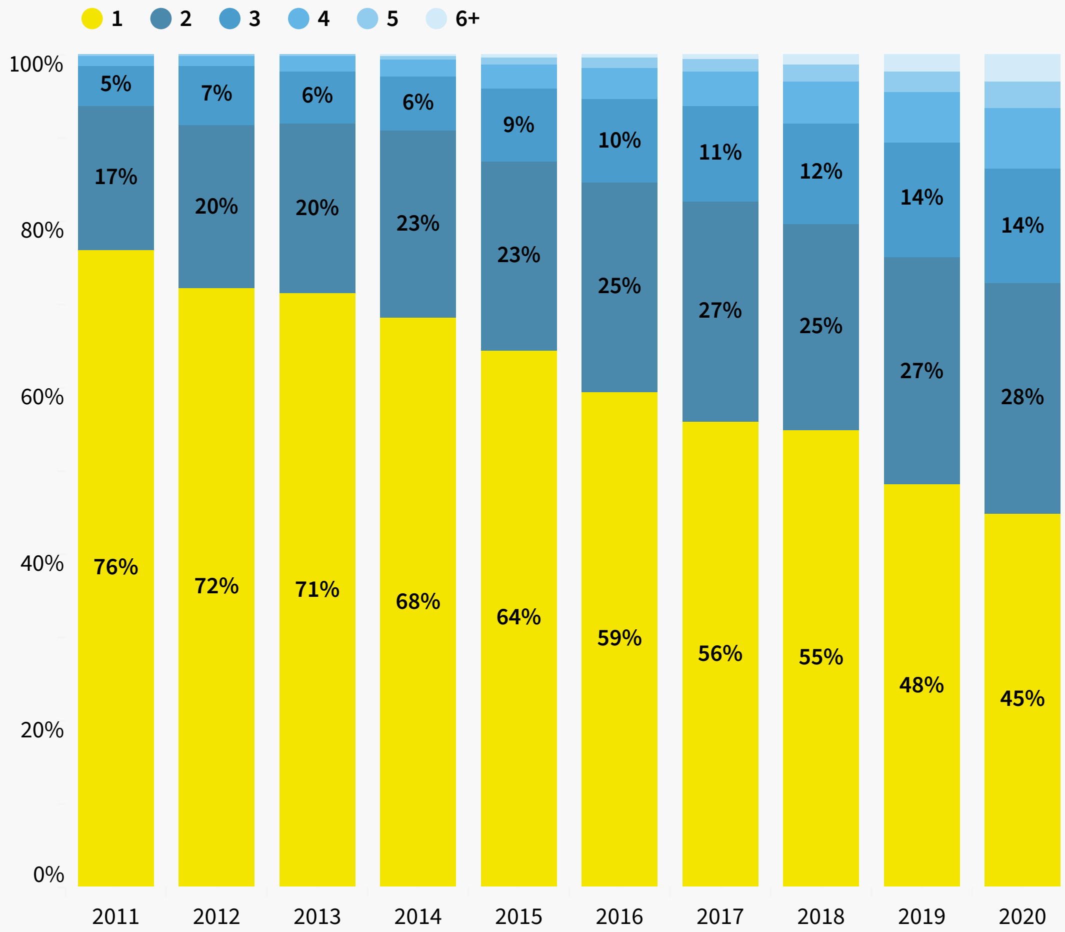
Changes to SEIS in early 2018 may be responsible for the decline in seed-stage deals. One notable change means that companies can no longer make speculative applications to be pre-approved under the scheme. This means that companies can no longer offer SEIS approval as an enticement to investors. Other changes at the time that may also have impacted seed-stage dealmaking include more stringent requirements for firms to be undertaking activities that present a real chance for loss of capital, and the need for a robust business plan.

Other aspects that may be contributing to the decline include the decreasing cost of starting a business thanks to the availability of low cost digital tools. And the growing number of startups that provide entrepreneurial individuals with a work environment that they would have had to create for themselves a decade ago.

Number of seed-stage equity deals by round number (2011–2020)



Proportion of seed-stage equity deals by round number (2011–2020)



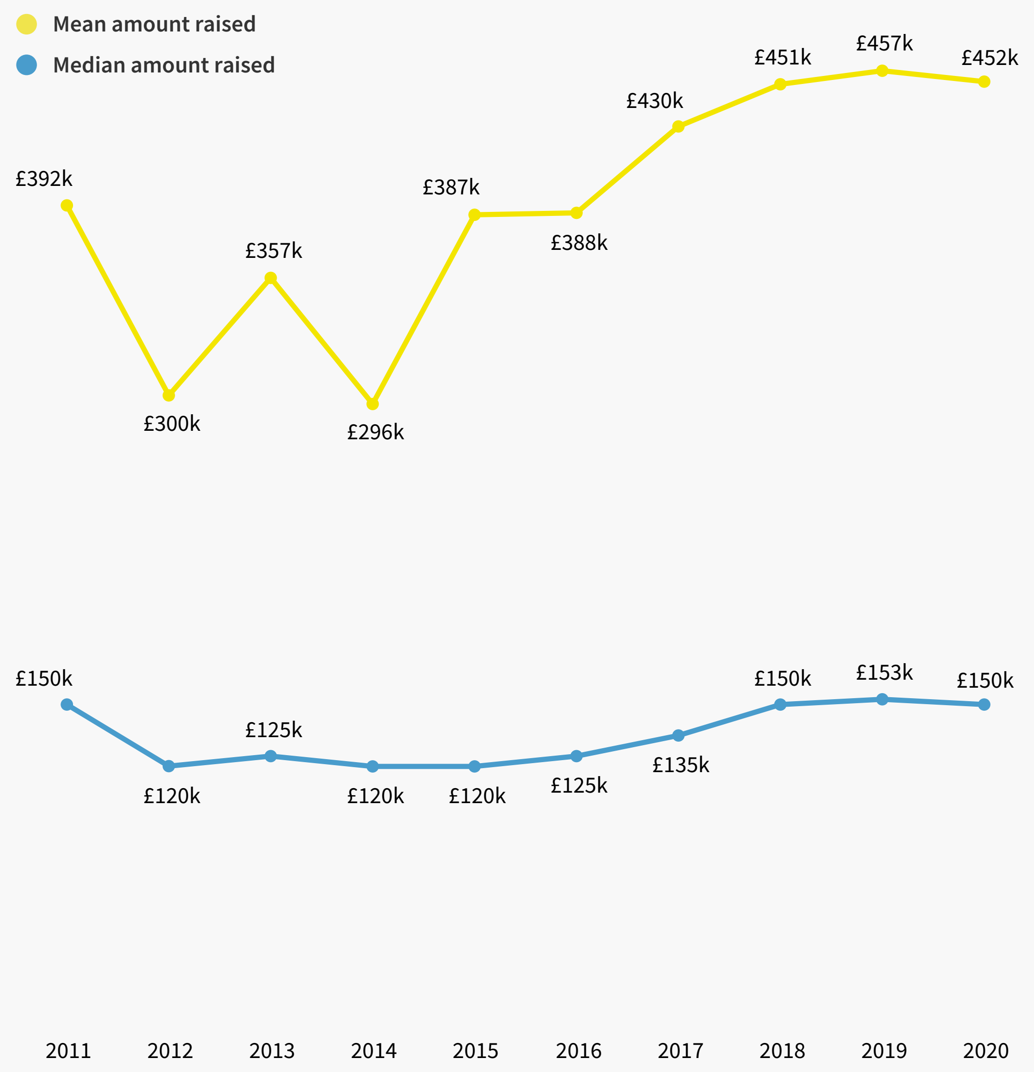
Average first-time seed-stage deal sizes

As this chart shows, the decline in the overall amount of money invested via first-time seed-stage deals is due to the reduced deal volume rather than a decline in deal size. The median deal size has ranged between £120k and £150 over the last 10 years. This suggests that companies' first-time seed fundraising rounds are being dictated by the SEIS threshold of £150k, with angels and SEIS funds likely to be the key investors at this stage.

The 10 year median deal size of £140k is just under the £150k SEIS threshold, meaning that half of investments over the decade would be fully eligible for tax relief under SEIS. This suggests that SEIS is an immensely important mechanism for UK seed-stage businesses to raise initial capital and that changes to the scheme may play a large role in the decline in deals.

The mean deal of£400k over the 10-year period indicates that while the majority of the deals made remained near the £150k SEIS threshold, there were also some substantial first-time seed-stage deals from sources such as crowdfunding and angel networks (see page 17 for the average deal size and total deals involving these investor types).

Mean and median first-time seed-stage deal sizes (2011–2020)



£400k

mean first-time seed-stage deal size 2011–2020

£140k

median first-time seed-stage deal size 2011–2020

Seed-stage overview

Top seed-stage investors

Equity crowdfunding platforms Crowdcube and Seedrs top both lists of investors by the number of first-time seed-stage deals. Both organisations play a key role in channelling capital to early-stage businesses, although a nuance that is often overlooked is their role as aggregators and facilitators of investment rather than direct investors. Equity crowdfunding rounds are often launched with the backing of committed institutional capital to entice individuals to invest in the ventures. This highlights the ongoing and important role of investors that are prepared to back companies at an early stage.

Another noteworthy aspect of the top investors is the prevalence of those backed by public money such as Scottish Enterprise, the Development Bank of Wales, the British Business Bank and the London Co-Investment Fund (LCIF). This is a sign of the important role that the Government has to play in supporting early-stage companies.

Top investors by number of first-time seed-stage deals (2011–2020)

Crowdcube	436
Seedrs	339
Entrepreneur First	147
SFC Capital	103
Scottish Enterprise/Scottish Co-Investment Fund	76
Seedcamp	68
Ascension Ventures	65
Jenson SEIS & EIS Fund, managed by Jenson Solutions	61
Mercia Fund Managers, managed by Mercia Asset Management PLC	59
Bethnal Green Ventures	50
North East Proof of Concept Fund, managed by Northstar Ventures	49
Collider	44
London Co-Investment Fund (LCIF)	41
Angels Den (Crowd Funding)	40
Dragons' Den, managed by BBC	38
Passion Capital	37
Start Up and Early Stage Capital, managed by Development Bank of Wales	36
Oxford Sciences Innovation	36
University of Cambridge Seed Funds, managed by Cambridge Enterprise	34
Minerva Business Angel Network, managed by University of Warwick Science Park Ltd	32

Top investors by number of first-time seed-stage deals (2020 only)

Crowdcube	43
Seedrs	37
SFC Capital	19
Ascension Ventures	11
Early Stage Growth Challenge Fund, managed by Scottish Enterprise	9
Bethnal Green Ventures	8
Access EIS, managed by SyndicateRoom	6
Development Bank of Wales	6
Future Fund, managed by British Business Bank	6
GC Angels	6
NorthInvest	6
Seedcamp	6
Sustainable Accelerator, managed by Sustainable Ventures	6
The University of Cambridge Enterprise Fund, managed by Parkwalk Advisors	6
Techstart Ventures (Scotland)	5
7Percent	4
Founders Factory Accelerator	4
RLC Ventures	4

The numbers in these two rankings exclusively refer to first-time deals into seed-stage companies and not the total number of deals the investor made in the relevant period.

Questions arising from the decline in first-time deals at the seed stage

Does the decline in seed deals stem from a reduced number of early-stage companies available for investment or from a reduction in early-stage investment activity? This is the key question one must look to answer when considering the decline in seed-stage deals. However, the answer that the evidence in this report points to is that it is likely a combination of both factors feeding into each other in a dynamic way. As with any marketplace, fluctuations in the population of those on the supply side or those on the demand side will impact the population of the counterparty.

Chapters 2 and 3 set out to investigate both sides of the equation. Chapter 1 examines the increase in company incorporations at Companies House and questions whether the increase necessarily leads to the type of companies that will be eligible candidates for equity investment. A vital question, and one that is difficult to answer at this moment in time, is whether the wave of businesses created in the wake of lockdowns and the pandemic are of the right type to become high-growth companies.

The chapter also looks at how the average amount of time to raise an initial deal has decreased and interrogates whether this is the positive news it appears to be. A decline in time to raise may actually indicate a reduced number of investable early-stage companies compared to the amount of investment available. Or it may indicate an increased number of investors relative to the company population. Several other potential explanations are also offered. The chapter then takes a more qualitative approach by highlighting four companies that have had drastically different experiences of raising early investment. Why do some succeed to raise while others fail?

Chapter 3 further explores the decline in investment via the Seed Enterprise Investment Scheme (SEIS) that has been raised in this chapter. It does seem likely that changes made in 2018 to how the scheme is administered have had a knock-on effect on how companies and investors do early-stage investments. A key group that plays an important yet difficult to quantify role at the early stages are angel investors. These individuals invest on a discretionary basis which may introduce more volatility into the early-stage investment landscape as changes to schemes like the SEIS and macro events such as the pandemic will be more likely to influence their investment strategies.

> *"This report provides key data to explore the questions asked here and many more. While the reasons behind the decline in seed-stage deals appear to be numerous and interlinked, our hope is that this report provides a platform for discussion and further investigation."*

Chapter 3 also examines how trends towards follow-on and later stage investments by institutional investors may be shifting capital away from early-stage businesses. Investors are increasingly engaged in following their money rather than making new investments, a trend that speaks to a potential imbalance in the risk and reward profile of early-stage businesses. The relatively stagnant number of new, seed deal capable investors may also be a symptom of this imbalance. Is it possible that investing at the seed stage is too much of an administrative burden for investors that can access larger sums of capital than ever before?

This report provides key data to explore the questions asked here and many more. While the reasons behind the decline in seed-stage deals appear to be numerous and interlinked, our hope is that this report provides a platform for discussion and further investigation. Chapter 4 offers a prognosis for the sector based on the expertise of SFC Capital and the depth of Beauhurst's data.

Chapter 2:
Seed Demand

This chapter looks at company incorporations and cessations in the UK to provide insight into whether a decline in the creation of new businesses may be behind the decline in initial seed-stage deals. This chapter also examines trends in time to raise and includes profiles of UK high-growth businesses that have had very different experiences raising seed-stage equity finance.

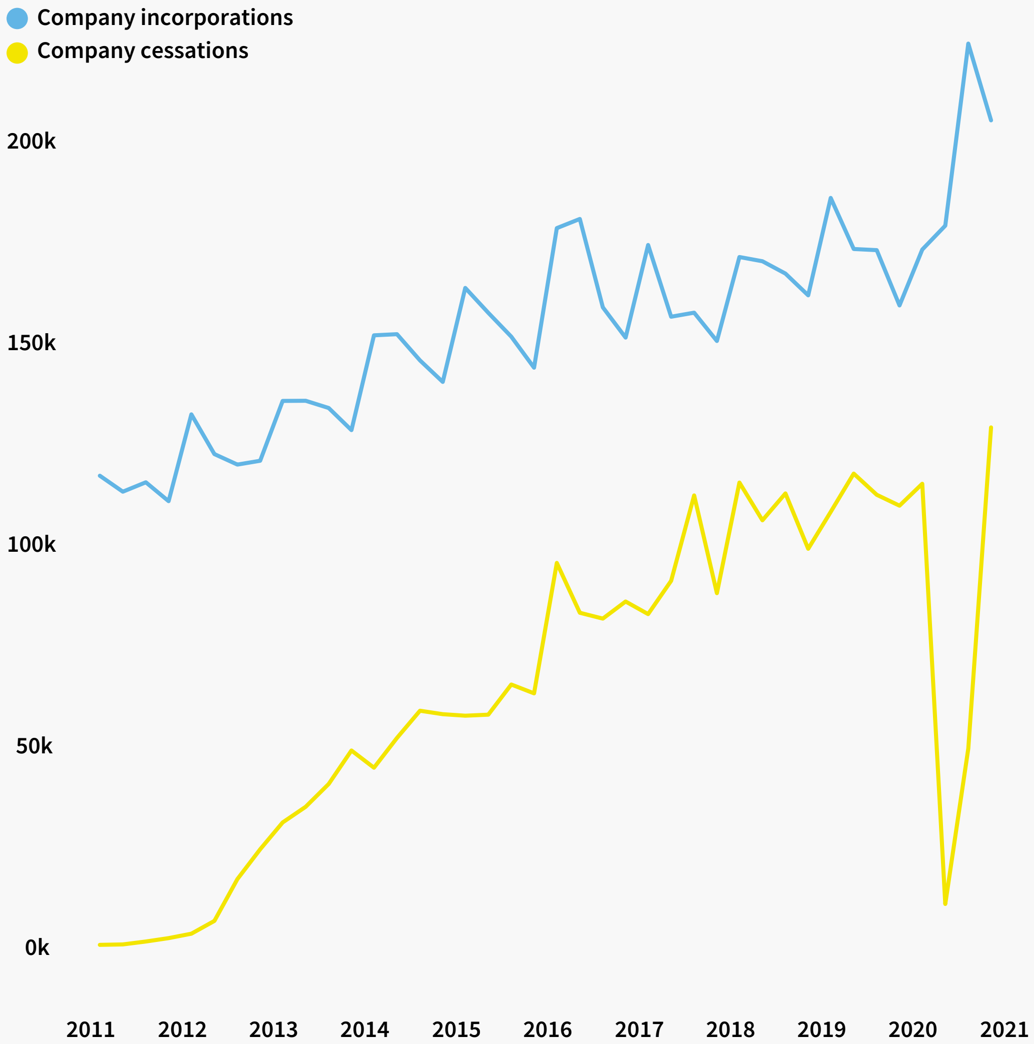
Incorporations and cessations

When considering the decline in seed-stage deals, it is important to consider whether there could be a decline in seed stage companies that is resulting in fewer investable prospects. This incorporation and cessation chart shows that the number of new companies being created has been trending upwards over the last 10 years—as have cessations, though in lower overall numbers.

The impact of the Government's support efforts during the pandemic are clear in the dramatic drop in cessations in 2020, followed by an equally severe recovery in cessations as support was eased. Less dramatic but still significant is the spike in incorporations at the end of 2020 and start of 2021. This may be due to would-be founders holding off incorporating until some of the uncertainty of 2020 had passed. Another reason for the spike may be that many people have made the switch to more entrepreneurial endeavours following redundancy in 2020 or because of a COVID-19 inspired life change.

Though the overall number of new businesses appears healthy, it is important to note that many of the newly incorporated companies could be vehicles for consultancy practices and side hustles and may not necessarily represent an increase in businesses that are appropriate for venture-style backing.

Number of companies incorporating or ceasing operations (2011–2020)



205k
companies incorporated in Q4 2020

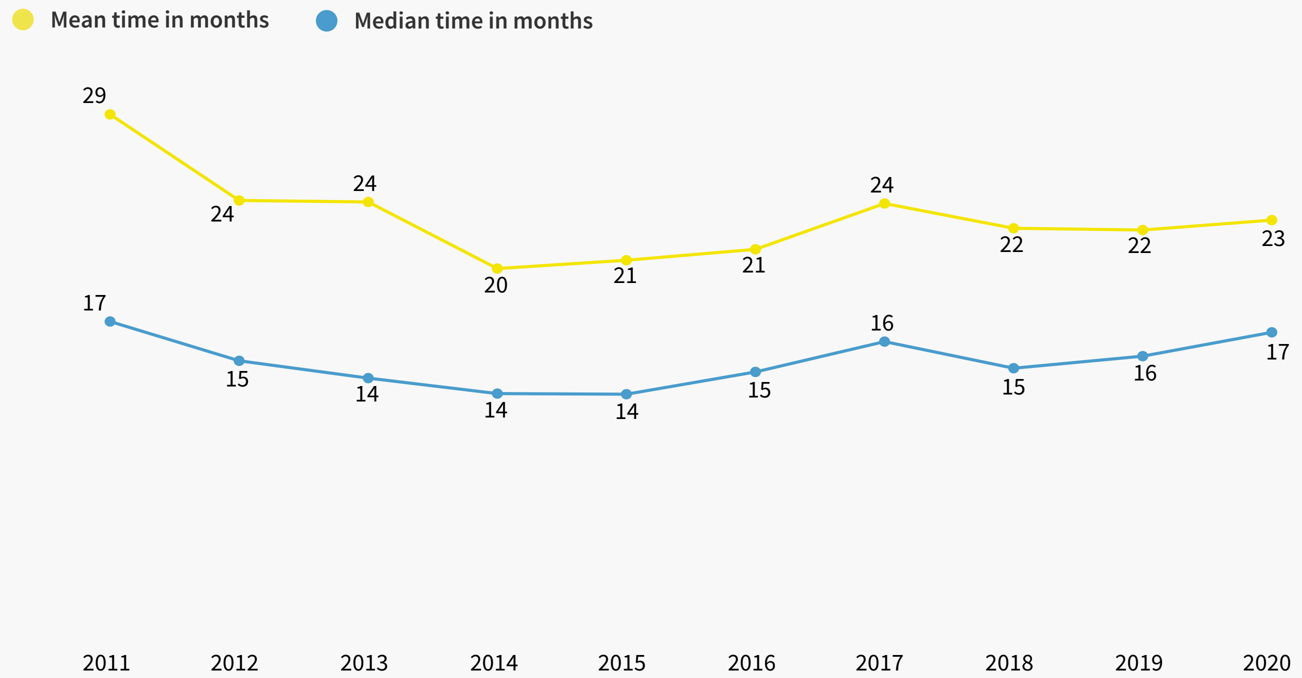
129k
companies ceased operations in Q4 2020

Trend in time to raise since 2011

The mean and median times to raise over the last 10 years have remained relatively consistent. The decline in the mean time to raise, from 29 months in 2011 to 24 months in 2012, may have been driven by the introduction of the SEIS scheme in 2012. To be eligible, companies are required to have been trading for less than two years; this time is counted from either the date of incorporation or the first commercial sale.

It seems likely that this criterion plays a significant role in guiding the raising schedule of early-stage firms. After the launch of SEIS in 2012, neither the mean nor medium time to raise has surpassed 24 months. This suggests that increasing the eligibility period for SEIS may result in more companies accessing the scheme.

Time in months between incorporation and first deal for seed-stage companies by year (2011–2020)



23 months

mean time to first deal for seed-stage companies 2011–2020

15 months

median time to first deal for seed-stage companies 2011–2020

Differing experiences in raising seed funding

Novai

Sector	Clinical diagnostics
Location	Reading
Website	www.novai.co.uk
Incorporation date	February 2020
First seed deal	April 2020

Novai is a Reading-based biotechnology company commercialising its patented technology for identifying disease activity related to glaucoma and age-related macular degeneration (AMD). Known as DARC (Detection of Apoptosing Retinal Cells) technology, Novai's innovative approach is the result of over 15 years of development. It uses a patented drug alongside a state-of-the-art AI algorithm to detect disease, creating a metric that can be used to indicate the presence or severity of disease in the retina.

The company raised a £500k seed funding round in April 2020 led by SFC Capital with participation from angel investors. Although the company was at a pre-revenue stage, it was able to secure seed funding rapidly thanks to the profile of its management team and the value of its intellectual property, the result of years of peer-reviewed research.

Approaching the right type of investor was key in the success of this seed round, as the company was moving away from a grant-funded research and development phase and toward a commercial phase better suited to equity finance. Novai secured the funding it required in around three months by identifying investors such as SFC Capital that had demonstrated appetite for investing in pre-revenue biotech companies.

Novai has used the seed funding to make key hires, bring the technology to market and secure its intellectual property. It generated its first revenues within six months of the seed round from global pharmaceutical companies looking to use the DARC technology in the clinical drug development process. A second funding round of £850k was closed in March 2021 involving existing and new investors.

Plyable

Sector	Manufacturing and engineering software; AI
Location	Oxford
Website	www.plyable.com
Incorporation date	February 2012
First seed deal	March 2019

Engineer Martin Oughton founded a consultancy called MODE in 2012 that went on to become Plyable in 2017. Plyable's software allows clients to automate the optimisation of mould design using machine learning. Its customers include Boeing, GKN Aerospace, and America's Cup challengers INEOS TEAM UK.

After pivoting the business in late 2017, Oughton was able to apply his experience running mode and from working in the F1 and Grand Prix yacht industries to the use of custom composite materials in the aerospace, automotive and marine sectors. In 2018, Plyable was awarded an Innovate UK grant for automated composite mould design and manufacture worth £70k. The company was able to use this grant money to further validate its model and secure venture backing in 2019 from Forward Partners. The venture capital firm invested £500k in the business in March 2019, securing just under a 50% stake after equity was issued to the founding team. This is a substantial stake for an early investor to take and will reflect a range of factors such as the age of the company at the time of investment, the founding teams' experience growing an venture-backed business, and the potential market for custom composite material moulds.

Later in 2019, Plyable was accepted into the ATI Boeing Accelerator and in early 2020 secured an additional £100k in equity investment from Boeing HorizonX Ventures. Speaking of the accelerator and securing investment, Oughton said: "I think my best way of finding investors is to find customers. If you find customers, they're the ones willing to invest in your product, generally the others fall down. And it's no accident that we applied to be part of the cohort for the ATI Boeing Accelerator."

Differing experiences in raising seed funding

Westgate Cyber Security (also trading as Enclave)

Sector	Cybersecurity
Location	Newport, Wales
Website	enclave.io
Incorporation date	August 2012
First seed deal	April 2020

Westgate Cyber Security develops Enclave, software designed to help make organisations more impervious to cyber attacks. Cybersecurity is a central issue in the digital age, and only became more so during the pandemic. It was during the crisis that Enclave secured its first round of private investment, nearly eight years after its incorporation.

Founded in 2012 by Welsh duo, David Notley and Marc Barry, Enclave engaged with multiple sources of support before securing equity finance. Starting with a £5k grant in 2013, the company was then awarded a £60k grant from Innovate UK in 2014 to develop IronShield, a portable device for instant VPN services. In the following years, Enclave attended two accelerator programmes: the Startupbootcamp Fintech and Cyber Security programme in Amsterdam in 2017 and the LORCA accelerator in 2020. Three months after the latter, it secured £500k from the Berlin-based VC, Next Big Thing, ceding 25% of the business for this sum.

The company spent eight years leveraging financial and strategic support from domestic and international sources, before securing investment from a foreign fund. Westgate's time at the LORCA accelerator was likely pivotal in securing this investment, likely acting to legitimize the company's products, and even introducing the leadership team to interested investors.

Puraffinity (also trading as CustoMem)

Sector	Cleantech
Location	London
Website	www.puraffinity.com
Incorporation date	June 2015
First seed deal	March 2019

Puraffinity is the product of two graduates of Biomedical Engineering at Imperial College London; Henrik Hagemann and Ben Reeve joined forces to commercialise a process that grows membranes programmed to filter specific contaminants from water. The company is using its technology to tackle chemical pollutants known as Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS).

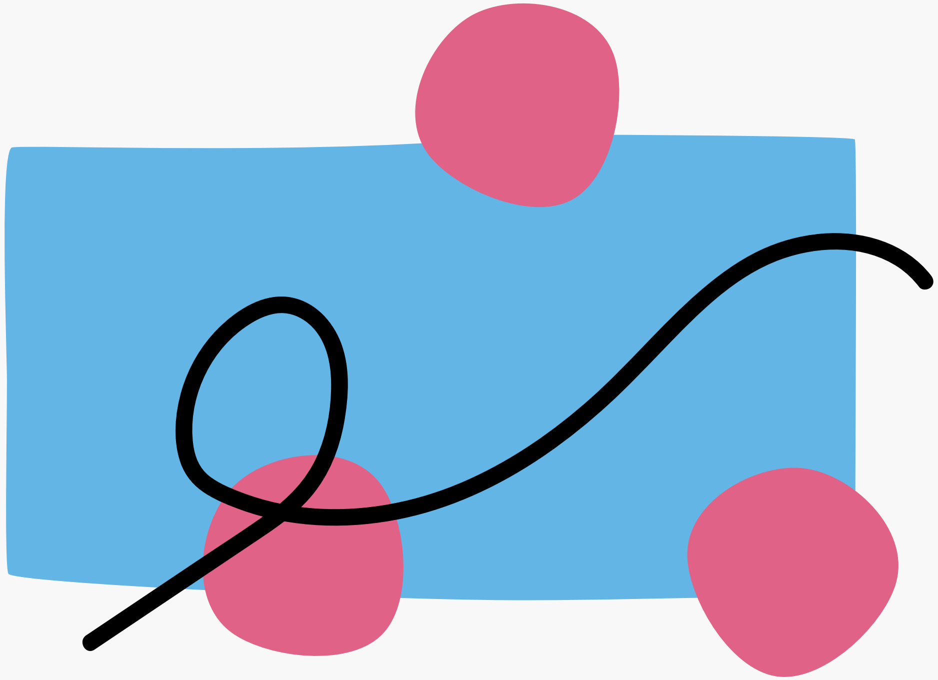
These man-made chemicals that are found in many everyday products have leached into the surrounding environment, posing a serious health risk.

Puraffinity attended four accelerators in the three years after its incorporation. It first took part in Imperial Enterprise's Venture Catalyst Challenge, after which it was awarded its first grant worth £50k. This was followed by an attendance of the Royal Academy of Engineering Enterprise Fellowships accelerator in 2016 and the IMAGINE IF! Accelerator managed by the Innovation Forum, the same year. The next year, it attended the Bio-start accelerator and secured a £70k Water Purification grant.

After this series of accelerators, Puraffinity secured a £1.2m grant in 2018, taking the total value of grants raised to £1.3m. In 2019, it secured £2.8m in equity investment, offering a 34% stake to undisclosed investors in March. The funders were likely to have included a suite of angel investors, alongside three institutional investors: Kindred Capital, HG Ventures, and Verve Capital.

Chapter 3: Seed Supply

This chapter examines trends in investor behaviour to assess how it may be impacting the decline in seed-stage deals. It includes analysis of follow-on behaviour, angel investing and the prevalence of new investors at the seed stage.



Trends in first-time use of the Seed Enterprise Investment Scheme (SEIS)

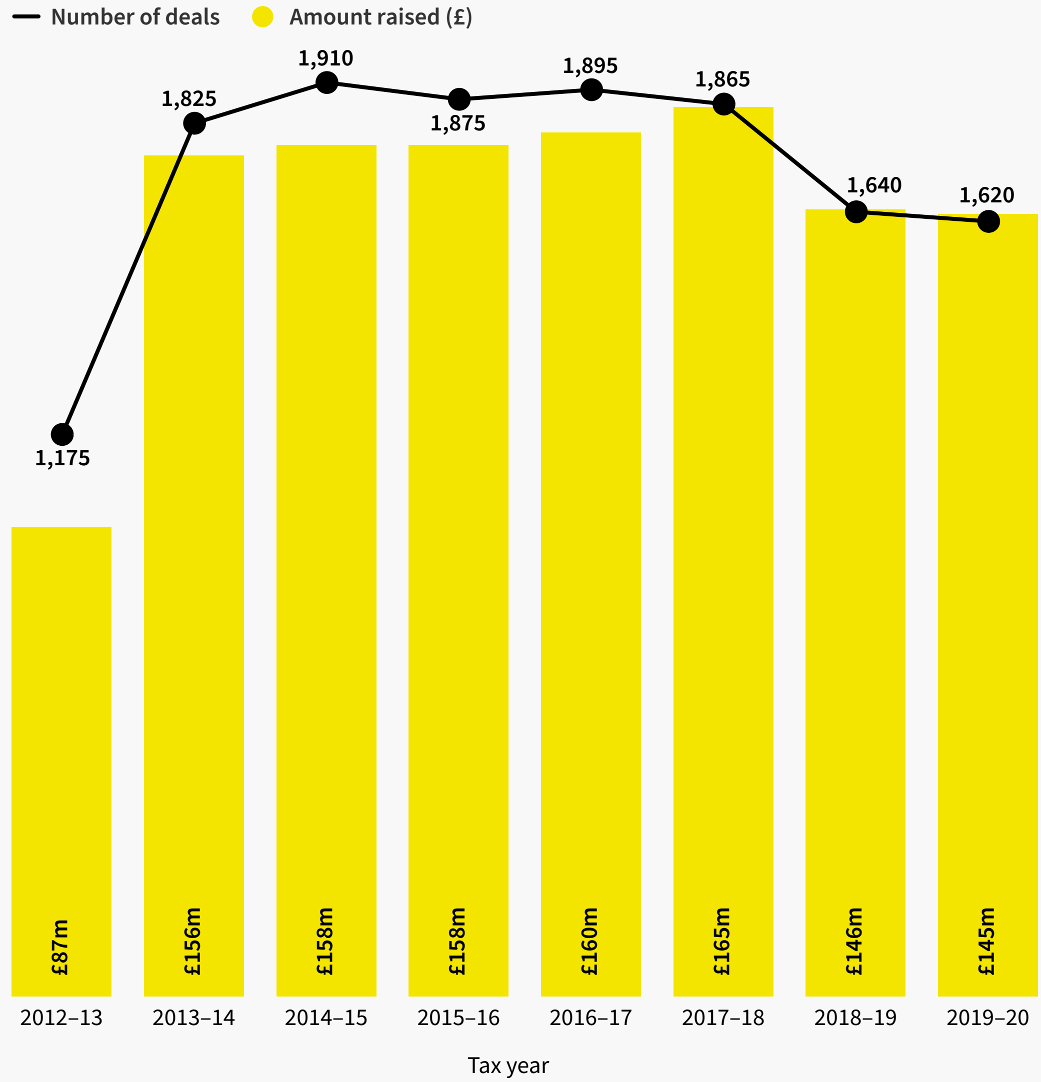
This chart uses the official HMRC data for first-time SEIS deals and shows both the number of deals and total of deals by tax year. As discussed previously, it seems likely that changes made to SEIS in 2018 have impacted use of the scheme.

Between the 2017-18 and 2018-19 tax years, first-time SEIS deals declined by 12% with the total amount invested falling by roughly the same proportion. The number of deals and amount invested held relatively steady in the 2019-20 period.

Prior to the changes, the number of companies raising funds via the SEIS for the first time had never declined by more than 2%.

The 2020-21 data that the Government will release next year will help provide greater insight into the long-term trends in access to the SEIS.

SEIS companies raising funds for the first time (April 2012–April 2020)



13,805
total number of companies raising via SEIS for the first time

£1.2b
total amount raised by companies using SEIS for the first time

79%
companies raising SEIS for the first time as a proportion of total first-time seed deals during the 2019–2020 tax year

Data source: HMRC Enterprise Investment Scheme, Seed Enterprise Investment Scheme and Social Investment Tax Relief statistics: May 2021

Angel networks and crowdfunding

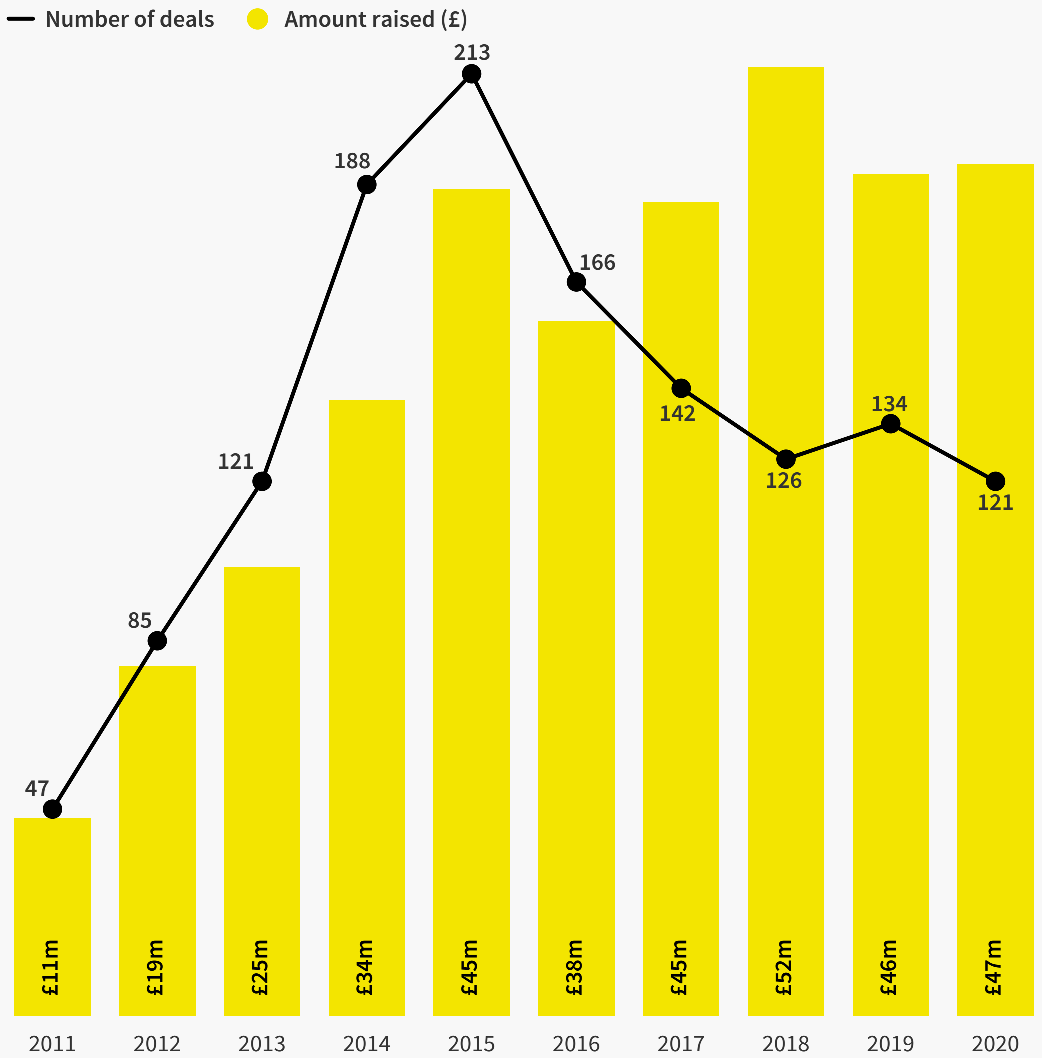
The earliest-stage businesses in the high-growth ecosystem usually have limited access to finance. Where self-funding, known as bootstrapping, is not viable, new businesses may look to angel investors or a crowdfunding platform to secure investment.

Despite the key contribution of individual angel investors, investments of this type are difficult to quantify because they are hard to separate from founders and early employees on capitalisation tables. Angels are also less likely to publicise their deals compared to funds. However, angel networks, which are groups of angel investors that syndicate funds and share opportunities, are easier to track. Equity deals involving angel networks, as well as deals involving crowdfunding platforms, are presented in this chart.

Between 2011 and 2020, a total of £361m was raised across 1,304 first-time equity deals that involved either angel networks or crowdfunding platforms. Despite the amount of investment remaining reasonably steady in the second half of the decade, the number of deals has dropped notably since 2015.

At the same time, the size of first-time deals from such sources is rising, with the average deal size increasing by £173k from 2015 to 2020. This suggests that angel investors and crowdfunding platforms may be focusing their efforts on a smaller number of companies at the earliest stages.

First-time deals into seed-stage companies involving angel networks or crowdfunding (2011–2020)



£277k

average size of a first-time seed-stage equity deal involving angel networks or crowdfunding 2011-2020

£361m

total value of first-time seed-stage equity deals involving angel networks or crowdfunding 2011-2020

New investments

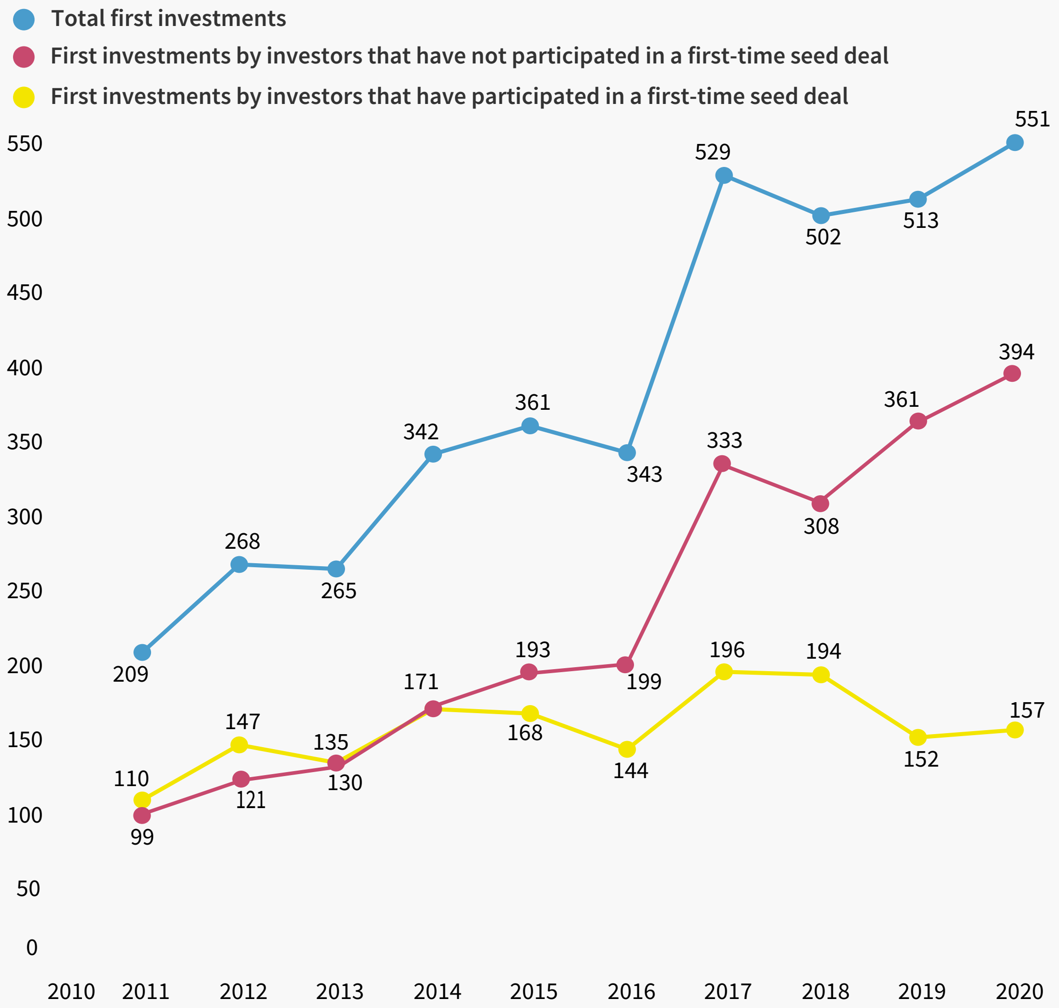
This chart shows the number of investors making their first investment in a UK company by year. This approach captures new fund activity but also funds making investments in the UK for the first time.

The chart shows that the overall number of investors making their first investment each year has been broadly on the rise. In particular, 2017 is notable with 529 investors making their first investment in a private UK company. This is a 54% increase on the 343 new investments that took place in 2016.

However, while the overall story is positive, the number of first investments being completed by investors with the capacity or intent to invest in very early-stage companies seems to be relatively stagnant. As the chart shows, the number of funds that have participated in an initial seed deal hit a high of 196 in 2017 and has declined to 157 in 2020.

This shows that new funds and foreign investors are making more investments in UK companies. However, the number of new investments at the seed stage is not keeping step with the overall growth of the ecosystem.

Number of first-time investments by year (2011–2020)



2,043

investors that have done a seed deal (2011–2020)

1,674

investors that have done a first-time seed deal (2011–2020)

Investors and later stage deals

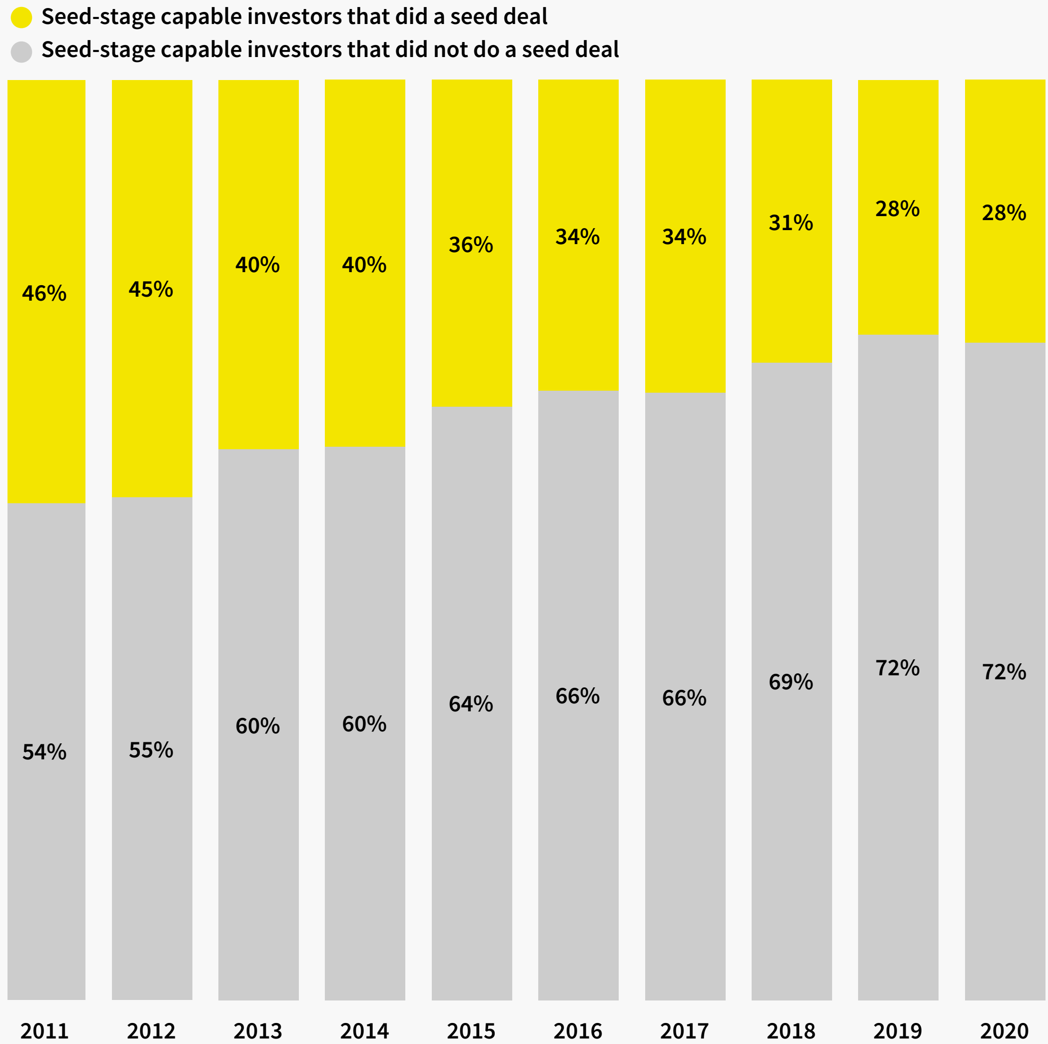
This chart shows how the proportion of investors doing seed deals is in decline. All investors included in this analysis have completed at least one seed deal, demonstrating that they have the capacity to do deals with early-stage businesses.

In 2020, only 28% of the active investors capable of doing seed deals actually completed a seed deal. This is a marked decline from 2011 when 46% of investors capable of doing seed deals did a seed deal.

A potential explanation for this trend is that the UK's high-growth ecosystem is very different now than it was in 2011. In the last few years, investors have gained access to more capital than ever before and have had the option to invest it into a large number of more established companies with validated business models. In this type of environment—which would not have been available to investors in 2011—investing in established businesses still provides significant upside with vastly reduced risk. The decline in seed-stage deals may be a symptom of a mature ecosystem and a low yield environment.

As competition among investors for established company deals increases and valuations rise even higher, investors may start to return to the seed stage.

Proportion of seed-stage capable investors doing seed deals by year (2011–2020)

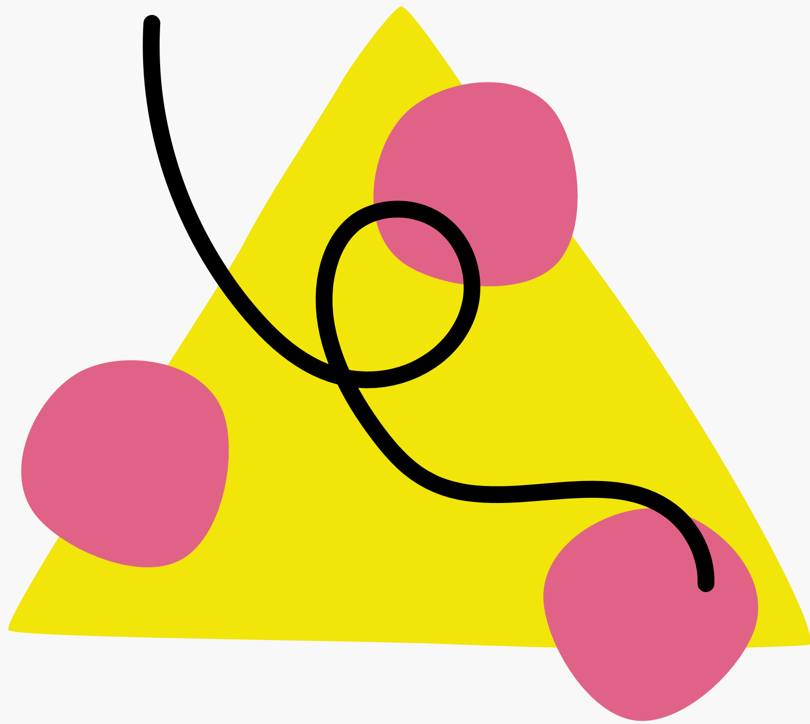


460
number of investors that did a seed deal in 2020

1,157
number of seed-stage capable investors that did not do a seed deal in 2020

Chapter 4: Conclusion and Recommendations

This chapters summarises the findings of the report and offers recommendations to improve the decline in first-time deals at the seed stage including changes to SEIS and the use of public money to support seed companies.



Conclusion

A record 205,000 companies were incorporated in the fourth quarter of 2021. As the chart on page 11 shows, this high is part of a 10-year positive trend in the number of companies incorporated in the UK. The increased number of incorporations suggests that entrepreneurship is on the rise. It seems likely that the pandemic is at least partially responsible. Many of the newly-minted entrepreneurs will have been made redundant or furloughed during the pandemic, while others may have had a lockdown-induced change of heart about a traditional career.

While entrepreneurship may be on the rise, there has been a clear and concerning decline in first-time deals at the seed stage. Since a high of 2,055 deals in 2018, first-time deals fell to 1,715 in 2019 and then to 1,427 in 2020. As the average first-time deal sizes (page 7) and the average time to raise (page 12) suggest, the Seed Enterprise Investment Scheme (SEIS) has a significant impact on how the UK's early-stage companies are funded. Changes made to the scheme in 2018 may be an important driver of the decline in first-time seed deals. Key among these changes was the requirement that Advance Assurance applications for the scheme must include the names of committed investors. This change curbed speculative applications where the intent was to use Advance Assurance to attract investment.

The data in this report makes clear that SEIS policy has a significant impact on the number of seed-stage deals that occur, the time taken from a company's incorporation to its first raise and the amount of money that a company raises in its first round. Changes to the scheme are an obvious starting place to address the decline in first-time seed deals; our recommendations are presented on the next page.

> *"The data in this report makes clear that SEIS policy has a significant impact on the number of seed-stage deals that occur, the time taken from a company's incorporation to its first raise and the amount of money that a company raises in its first round."*

Without seed funding there is no follow on investing; seed-stage companies are the start of the pipeline for all other stages. If the average annual rate of decline observed from 2018 to 2020 was to continue, there would be 826 first-time seed deals done in 2023 and only 573 deals in 2025. However, this drastic state of affairs seems unlikely to come to pass.

The data from the first two quarters of 2021 suggests that the rate of decline is decreasing. Q1 2021 saw 430 first-time seed deals completed and 226 deals have been done in the incomplete second quarter to mid-June. At this rate, it is likely that 2021 may still be down slightly from 2020 though this can be explained by the prolonged impact of the pandemic. In particular, the pandemic will have dampened investment from discretionary early-stage investors such as angels. Non-institutional investors can refrain from investing when times are bad or uncertain, whereas institutional investors have an imperative to deploy the capital they have been entrusted with.

Now more than ever, we need to ensure that early-stage UK companies receive the resources they need to scale. These companies are an important source of job creation, growth and innovation. The rate of first-time deals should be increasing with the overall ecosystem to assist in the pandemic recovery and bolster the UK economy post-Brexit. We hope the data presented in this report convinces readers that changes need to be made to better support early-stage companies in the UK. Our recommendations are set out on the following page.

Recommendations

These recommendations are based on the data presented in the report which Beauhurst has been collecting since 2011 and on the experience of the team at SFC Capital, which has been backing early-stage companies since 2012. The recommendations fall into three categories: updates to SEIS, recommendations for how public money could be directed towards early-stage companies to de-risk these companies in a similar way to government programmes have done at later stages, and how greater support can be provided to investors that specialise at the earliest stages.

Updates to SEIS

SEIS has proved to be an effective method for incentivising investment in early-stage companies. These recommendations aim to build on the scheme's existing success and update it for 2021 and beyond.

Increasing the investment limit per company from £150k to £250k
This will make it possible for more investors to back a company and will better align SEIS with the funding that companies require to make it to the next round of funding.

Extend the trading-based eligibility period from two to three years
Companies are eligible for SEIS investment as long as they have not been trading for more than two years. Given the lower cost of starting a company in 2021, SEIS should provide a longer eligibility period to allow companies more time to test business models and strategies before committing to venture funding.

Relaxing de minimis state aid rules
Many early-stage companies win innovation grants and extra financial support that may later impact their ability to raise their full SEIS funding allowance. Relaxing or abolishing the de minimis aid rules would allow the most innovative companies to benefit from multiple sources of funding to bring innovations to the market.

Improve the process for Advanced Assurance and SEIS3 Certificates
Speeding up the process for SEIS Advanced Assurance and SEIS certificates will mean fewer companies will miss out on investment. At the moment, companies can fail to appreciate the importance of pre-approval or wait until too late before submitting an application meaning they miss out on the eligibility period.

Increasing SEIS investment amount per investor from £100k to £200k
Increasing the investment limit will allow wealthy individuals that can invest more to do so. Given the increase in asset-based wealth in the UK due to stimulus measures, this change could unleash capital that might otherwise be waiting for the next tax year or will never be used for this type of investment.

More use of public money to support investment into seed-stage companies

Companies that have received money from Government-backed investors such as British Patient Capital and British Business Investments, or via schemes such as the Future Fund and the Future Fund Breakthrough have reduced risk for private investors. Investors operating at the stages targeted by these initiatives benefit from the public money that flows to their portfolio companies, which effectively de-risks investments occurring at this stage. This in turn drives more private investment into funds operating at these later stages.

Unfortunately, there is comparatively little public money flowing to the UK's very early-stage companies, compounding the already increased risk of investing at this stage. The breakdown of top seed-stage investors on page 8 shows that while Government-backed funds are active, private investors are responsible for the vast majority of first-time seed deals. Providing greater resources to existing Government schemes or starting new focused investors will help to ensure that the UK's early-stage companies see the benefit of both public and private investment.

Greater support for early-stage funds

Investing at the seed stage is a challenging undertaking that requires skill and experience to do effectively. With this in mind, interventions aimed at increasing investment at the seed stage should be focused on supporting existing funds or encouraging the launch of new funds that are dedicated to the area. Encouraging later stage investors to focus on the seed stage via short-term incentives may end up exacerbating the issue over the longer term as these more size agnostic funds may move away when subsidies dry up.

One way the Government could support SEIS funds over the long term would be to introduce an approved fund structure for these vehicles to align the scheme with EIS. At the moment, the lack of an approved structure and investment process creates a significant administrative burden for SEIS funds. For example, while EIS funds can produce a single certificate per investor that includes all the underlying companies, SEIS funds must process one tax certificate per investor per company. This creates a substantial burden for small teams that are operating in a challenging environment.

While not exhaustive, we believe that the recommendations set out here are promising candidates for stimulating greater investment at the seed stage. Whether taken singly or in combination, the recommendations seek to address the challenges facing seed companies that have been explored in this report. We welcome discussion of these and of opportunities for improvement. Failure to curb the decrease in seed stage investment has significant ramifications for the UK's high-growth ecosystem.

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Beauhurst is a searchable database of the UK's high-growth companies.

Our platform is trusted by thousands of business professionals to help them find, research and monitor the most ambitious businesses in Britain. We collect data on every company that meets our unique criteria of high-growth; from equity-backed startups to accelerator attendees, academic spinouts and fast-growing scaleups.

Our data is also used by journalists and researchers who seek to understand the high-growth economy, and powering studies by major organisations – including the British Business Bank, HM Treasury and Innovate UK – to help them develop effective policy.

For more information and a free demonstration, visit beauhurst.com.

SFC

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SFC Capital is the UK's most active seed-stage investor, providing seed capital and support to promising British startups.

By combining our award-winning angel syndicate with our own seed investment funds, we have created a unique model that provides investors with diversified exposure to high-potential SEIS and EIS-qualifying businesses.

We have backed over 250 companies across the UK, and have been named Best SEIS Fund Manager at the 2020 Growth Investor Awards and Most Active Investor in the Regions Award at the 2021 UKBAA Angel Investor Awards.

To learn more about what we do and see our portfolio, visit sfccapital.com.

We would like to thank the team at SFC Capital for supporting us through the research and creation of this report.

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