



Tech in the UK 2023 Innovation Nation

Regional report: The East of England
March 2024

 **BARCLAYS** | **Eagle Labs**

 **Funded by
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 **Beauhurst**

Executive summary

The UK's tech sector has demonstrated significant growth and resilience from 2019 to 2023, with substantial equity investments and the development of tech hubs across the country.

The UK stands strong as a hub for technology innovation, marked by the continuous growth in new company formations since 2013. Whilst London has significant concentration of existing high-growth tech companies, the innovation landscape extends nationwide, with several clusters contributing notably to the dynamic ecosystem. Leeds, Oxford, and Cambridge stand out, elevated by the close partnerships between business and academia. These world-leading institutions are instrumental in cultivating fertile ground for technological advancements on a national and global scale.

The widespread locations of tech hubs beyond London provides an opportunity for clustering and regional specialisation. Edinburgh's high-growth companies lead in fields such as biotech and artificial intelligence. Bristol is another burgeoning tech hub, particularly in robotics and aerospace technology.

In 2023, the UK's tech sector demonstrated resilience when navigating a challenging funding environment. Despite a collective 27.2% drop in total equity investment for private UK firms between 2022 and 2023, some regions resisted the trend. Yorkshire and the Humber and Wales were among the regions that registered an upward trend in funding activities between 2022 and 2023, with a 19.9% and 8.74% growth respectively. Moreover, there was a significant increase in grant funding across half of the 12

constituent countries and regions of the UK. It is important to note that the investment trends observed across 2020 and 2022 were unusual. Government support plays a vital role in supporting the UK tech ecosystem, as underscored by our survey involving 2,500 UK tech workers. A large majority recognise the benefits of initiatives such as Innovate UK and investment schemes like SEIS and EIS. Innovate UK has the highest positive rating at 45.5%, signifying strong approval of their efforts to stimulate technological innovation and growth within the sector.

The **UK Science and Technology Framework**, unveiled in March 2023, sets forth a list of actions to set the stage for the UK to become a top global tech player by 2030¹. These actions encompass a range of initiatives, from tackling industry challenges to enhancing digital infrastructure. To address the skills gap, the Department for Science, Innovation and Technology (DSIT) launched a communications campaign to promote government-funded Skills Bootcamps in high-demand digital fields like software development, data analytics, and cybersecurity.

Opportunities in digital transformation, artificial intelligence, and clean energy technologies, present great potential for the UK to strengthen its position in the global tech landscape. These technologies present an opportunity for the UK to foster growth and competitiveness on a global scale.

Introduction

The number of active companies in the UK's technology sector has consistently increased since 2019. This expansion of the sector extends beyond London, fostering the development of technology hubs throughout the country. These hubs play a vital role in attracting investment and supporting the development of ecosystems for startups and scaleups.

Andrew Roughan, CEO at Plexal, says, "The UK tech ecosystem is undergoing an exciting evolution, which has challenges but also opportunities ahead. With emerging technologies advancing at pace, the launch of a world-first from Britain, like the [AI Safety Summit](#), is one example of how we can demonstrate leadership on the global stage. This is increasingly important to ensure the UK's position as a science and tech superpower in the next six years."

Globally, technology sectors are developing, fueled by rapid advancements in artificial intelligence, machine learning, blockchain, and other cutting-

edge technologies. The UK's tech sector in particular has a strong emphasis on research and development, bolstered by its universities and research institutions. Despite the sector's role in generating substantial employment opportunities, 2023 witnessed a downturn with the loss of many tech jobs worldwide.

Manchester is another exemplary case of how a regional city can evolve into a tech hub. Katie Gallagher OBE, chair of the UK Tech Cluster, emphasises the role of Manchester within this landscape: "Manchester's tech sector is a testament to the city's resilient and innovative spirit. It has become a beacon of technological advancement and a hub for tech talent, significantly contributing to the UK's position on the global tech stage." This sentiment highlights how Manchester has embraced technological innovation, attracting both startups and established companies to the city. Alisdair Gunn, Director at Glasgow City Innovation District, echoes a similar narrative for Glasgow, highlighting the city's growing significance within the UK's tech ecosystem. "Glasgow is emerging as a significant player in the UK's tech ecosystem, with our Innovation District fostering collaboration between academia, business, and the public sector."

Wales is rapidly establishing itself as a pivotal centre for technology, showcasing significant expansion

and expertise across diverse fields. Mark John, co-founder and Director of Tramshed Tech, highlights this progress: "The technology sector in Wales has surged by 83% since 2010, reaching an estimated value of £8.2b by 2022." He further elaborates on the dynamic creative industries sector, where Wales outshines as a major hub of creative output and talent in the UK, second only to London. This is propelled by the support from leading sector organisations like Media Cymru, Ffilm Cymru, and Creative Wales.

Ian Browne, Managing Director of the National Digital Research Centre (NDRC) based in Dogpatch Labs underscores the importance of supporting early-stage ventures, "More North and South initiatives are being proposed to connect the startup ecosystems of both the UK and Europe with Northern Ireland at the core. The NDRC's mission is to invest in and support digital startups that have the potential to scale internationally. Our success stories underscore the UK and Ireland's capability to produce world-class tech companies."

Irene Graham OBE, CEO, ScaleUp Institute said, "Science and tech businesses are a key segment of the scaleup landscape. ScaleUp Institute research shows that the building of clusters and hubs are critical enablers of scaling businesses, alongside access to

skilled talent and growth capital accessed locally."

Looking ahead, the trajectory of the UK's tech sector appears promising. With the government's increased focus on digital skills, research and development (R&D) tax credits, and initiatives aimed at encouraging investment in tech startups, the ecosystem is poised for sustained growth. Additionally, the UK's departure from the European Union presents both challenges and opportunities. While it necessitates the renegotiation of trade, it also offers a chance to redefine the UK's role in the global tech landscape, forging new partnerships and reinforcing its status as a global tech leader.

The report is focused on the UK tech ecosystem as of December 2023. To qualify as a tech company for this report, the business must fall within the 'technology' classification developed by Beauhurst.



England

Tech company population

England's tech sector declined in most metrics between 2022 and 2023. This decrease largely reflects the adverse macroeconomic conditions impacting the high-growth ecosystem, signalling a challenging period for startups and scaleups alike.

Investment declined by 38.9% in 2023 to £11.6b. Despite this, some businesses, such as SumUp, secured notable equity investments (£244m) in 2023. This suggests that although overall equity funding has decreased, some investors continue to invest significantly in this sector despite a more challenging economic backdrop.

Spinouts comprise 6.48% of England's active tech population. In 2023, these companies secured £1.34b across 297 deals, contributing to 11.6% of the total equity raised in the sector.

With 4,556 active companies, SaaS ranks as

England's top subsector. This dominance underscores the versatility of SaaS platforms operating across fintech, artificial intelligence, and e-commerce industries.

Fintech (1,527) and financial services (976) are popular subsectors for English tech businesses. Companies operating within fintech have collectively raised £22.3b over the past five years via 3,086 fundraisings. Checkout.com raised a significant £730m in January 2022. The Hackney-based firm develops software that allows businesses to process online payments in multiple currencies. Pharmaceuticals is among the top sectors by number of active companies in England. The number of companies in this life sciences sector has grown by 116% over the last decade, from 359 in 2014 to 777 in 2023.

England		
Company population:	16,199	▲ 1.60%
Investment:	£11.6b	▼ -38.9%
Grants:	£389m	▼ -12.4%
Spinouts:	1,050	



The map presents data on the active and dormant tech company population in 2023. Percentage changes are derived by comparing statistics from 2023 with those from the preceding year (2022). The spinout population data is accurate up to the end of December 2023.

East of England

Tech company population

The number of active and dormant tech companies in the East of England increased slightly by 0.81%, reaching a total of 1,476 active companies in 2023. This modest increase in the tech company count suggests a degree of resilience and potential for growth within the East of England's tech ecosystem, even in the face of increasing macroeconomic challenges.

Investment in the region's tech sector has also seen a considerable decrease, with a 37.9% drop since 2022. Grant funding volumes have also decreased substantially, with a 79.4% drop to £51.2m. This dramatic decrease is partially due to several large grants awarded to companies in 2022, including a £32.1m grant, which constituted 35.2% of the total grant value that year. This dramatic decrease could pose challenges for the sector, particularly for startups and smaller companies that may rely heavily on grants for their operations and development.

Despite the overall decline across most metrics, the region maintains a strong output of spinouts, with 160 entities. The East of England is home to the prestigious University of Cambridge, which contributed to 58.1% of the total spinout cohort. This includes T-Therapeutics, which uses T cells to develop pharmaceutical treatments for autoimmune diseases and cancers. Since its incorporation in 2022, the Cambridge-based firm has raised £63.0m in equity fundraising, showcasing the vibrant potential and entrepreneurial spirit thriving within the region.

Active tech company population statistics for the East of England (2023)



East of England		
Company population:	1,476	▲ 0.81%
Investment:	£1.16b	▼ -37.9%
Grants:	£51.2m	▼ -79.4%
Spinouts:	160	

The map presents data on the active and dormant tech company population in 2023. Percentage changes are derived by comparing statistics from 2023 with those from the preceding year (2022). The spinout population data is accurate up to the end of December 2023.

Cambridge

Investment overview

From 2019 to 2023, Cambridge's tech sector saw significant growth, securing £1.96b in equity investment via 528 fundraisings. Investment peaked in 2022, with companies raising £504m. The highest number of deals occurred in 2021 with 129.

The city's thriving tech sector benefits from a combination of world-class research institutions and a supportive network of investors and entrepreneurs. The investment trends observed over the past five years highlight a focus on the software, Analytics, and life sciences sectors. These showcase Cambridge's ongoing appeal as an innovative ecosystem, and a prime location for tech startups and scaleups.

The largest fundraising event in the period was led by Pragmatic, a manufacturer of flexible integrated circuits. In 2023, Pragmatic raised £162m in equity investment from investors such as Cambridge Innovation Capital (CIC) and British Patient Capital.

Cambridge Angels emerged as the most prolific investor into Cambridge tech companies, participating in 62 deals between 2019 and 2023. The network of angel investors is renowned for its focus on early-stage technology companies. Cambridge Angels has

supported companies such as Techspert, an indexing software for the bioscience and healthcare sectors. Techspert uses artificial intelligence to connect experts to relevant projects.

30.2k

Number of active companies

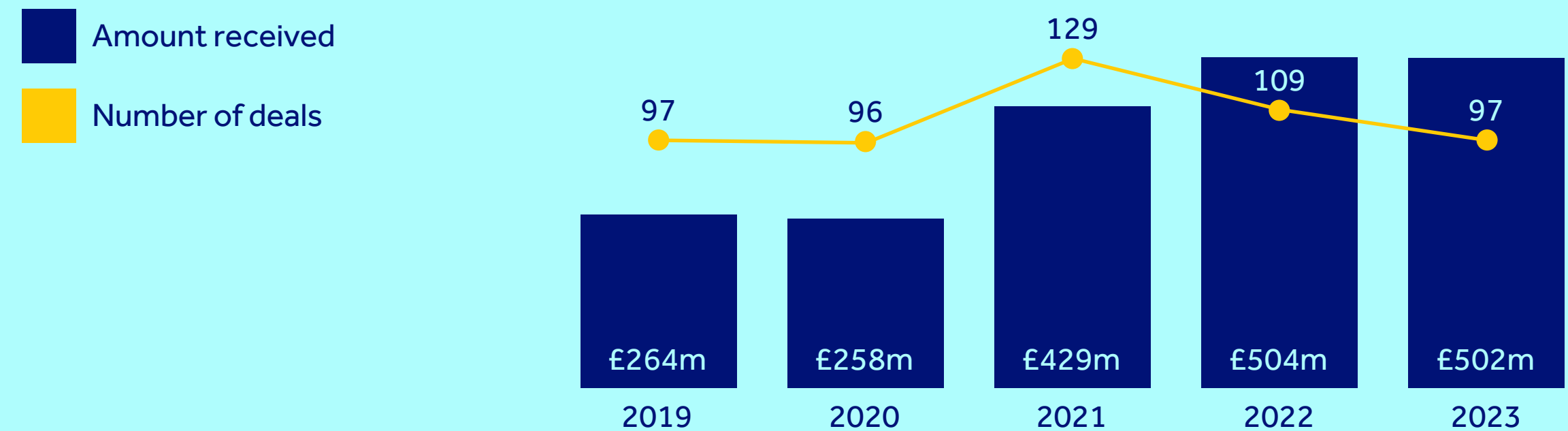
797

Number of active high-growth companies

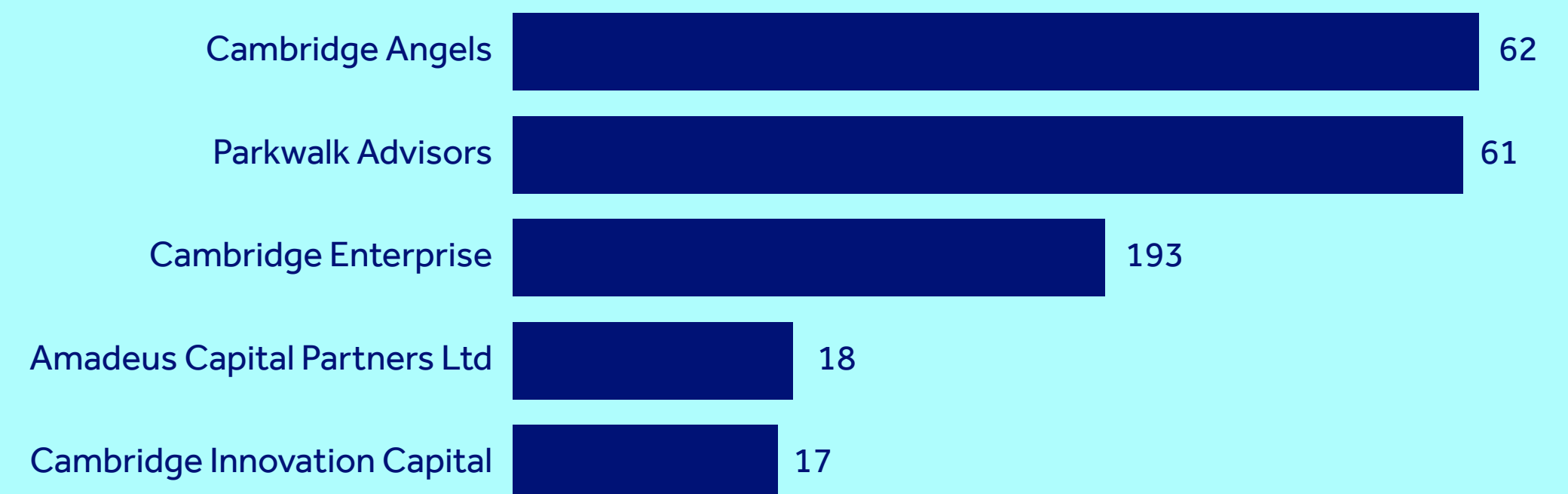
354

Number of active high-growth tech companies

Equity investment secured by Cambridge-based tech companies (2019-2023)



Top investors into Cambridge-based tech companies by number of equity deals (2019-2023)



Cambridge

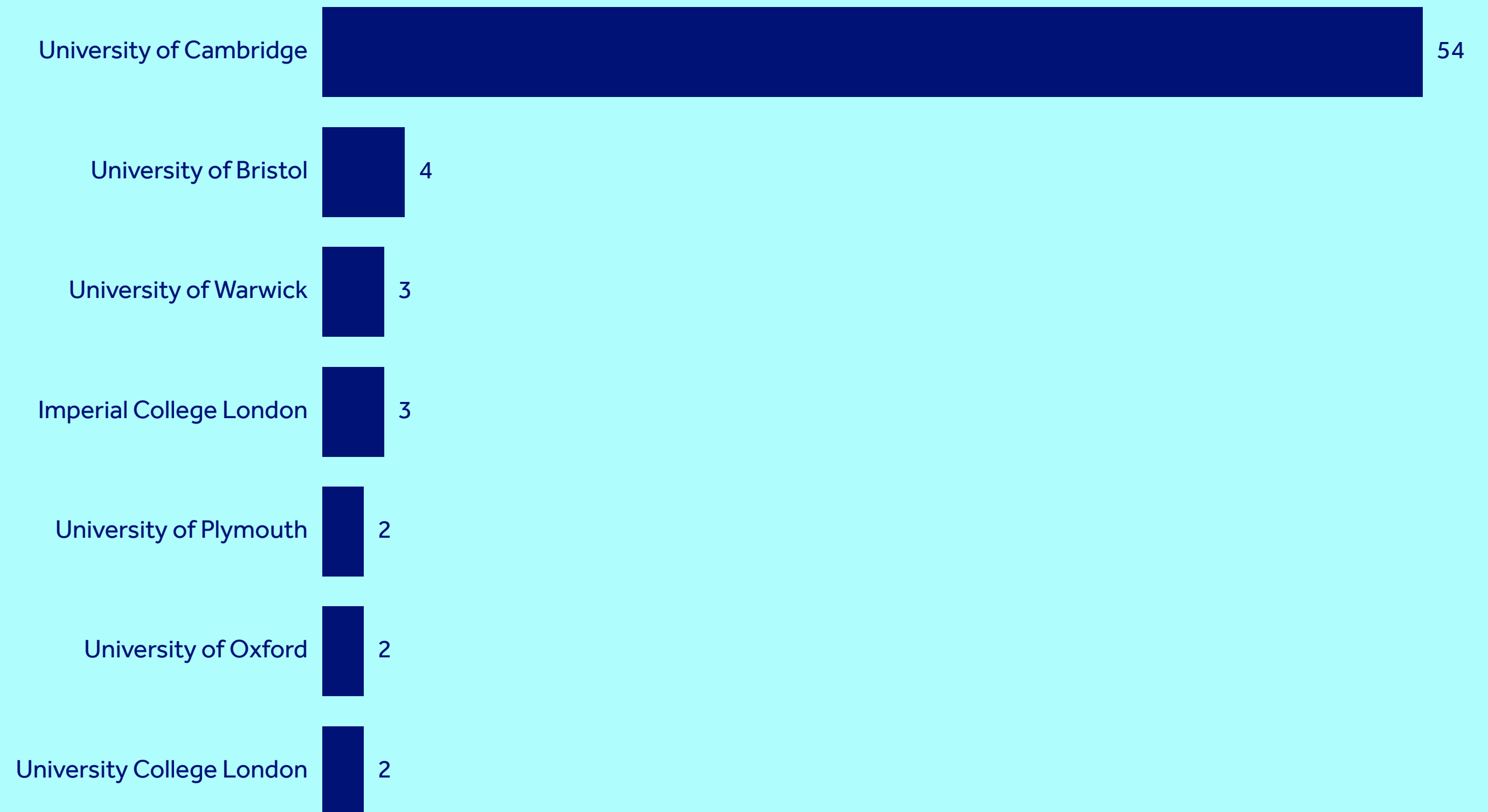
Academic spinouts

Of Cambridge's 354 active tech companies, 71 (20.1%) are academic spinouts. The University of Cambridge has produced 76.1% of the total academic spinouts in the city, totalling 54 companies. In 2019, software company Healx raised £43.9m in equity fundraising, the largest raise by a Cambridge-based spinout over the period. Healx develops software to help find treatments for rare diseases by matching treatments to existing compounds.

Academic institutions provide resources necessary for research, mentorship, funding opportunities, and access to a network of industry partnerships. By collaborating with these institutions, entrepreneurs can gain access to cutting-edge research, state-of-the-art facilities, and a talent pool of leading academics and researchers. These include initiatives such as Accelerate Cambridge, an accelerator programme at Cambridge Judge

Business School. This programme is designed to accelerate the growth of startups, from ideation to commercialisation.

Top academic institutions by number of Cambridge-based tech spinouts (2019-2023)



East of England Survey stats

Among those surveyed working for businesses situated in the East of England:

59.4%

agreed the availability of finance options in their region would be improved.

21.4%

identified 'access to facilities' as their company's most significant concern.

67.9%

recognised a lack of appropriate talent in the UK tech sector.

70.1%

agreed that public or local grant-funding initiatives sufficiently bolster their tech environment.

1 in 5

highlighted cultural stigma against entrepreneurship as the key deterrent for youth engaging in entrepreneurial activities.

Our reports

Barclays Eagle Labs in partnership with Beauhurst has delivered a series of thought leadership reports to support the UK tech sector. The reports covered topics ranging from engineering, and artificial intelligence, to the challenges faced within the technology sector, around hiring practices and the need for specific skills.



Decrypting the UK's high-growth quantum technology companies



Unlocking Investment: Trends for high-growth companies, H1 2023



A review of the UK's semiconductor clusters



Understanding the UK's high-growth artificial intelligence companies



Unlocking access to ecosystems



Exploring the UK's engineering biology companies



Unlocking the UK's tech talent potential



Impact, environmental and social signals in startups and scaleups

Methodology

Beahurst identifies high-growth startup companies using eight triggers (outlined on this page) that it believes suggests a company has high-growth potential. More detail on Beahurst’s tracking triggers is available via its website. Additionally, to qualify as a tech company for this report, the business must fall within the ‘technology’ classification developed by Beahurst.

Active companies

"Active" companies refers to companies that have an active or dormant Companies House status. The term excludes companies that have exited via an IPO or acquisition.

Equity investment

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

- Some form of equity investment
- Secured by a UK company
- Issued between 1 January 2013 and 31 Dec 2023.

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.

Grant funding

A company that has met our innovation grant trigger is one that has formally accepted a grant offer for a specific innovation project. The project’s primary focus must be fostering ‘New to the market’ innovation, as opposed to other aims such as job creation. The grant must have been received between 1 January 2013 and 31 Dec 2023.

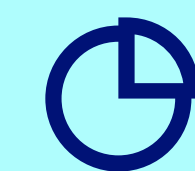
Academic spinouts

We define an academic spinout as a company that meets condition 1 and at least one condition out of 2-4:

1. The company was set up to exploit IP developed by a recognised UK university or research institution (this is broadly in line with the Higher Education Statistics Agency’s (HESA) definition of a spin-off)
2. The institution owns IP that it has licensed to the company
3. The institution owns shares in the company

4. The institution has the right (via an options or warrants contract) to purchase shares in the company at a later date.

High growth triggers



Equity investment



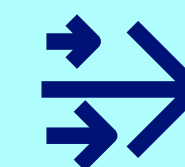
Academic spinouts



Scaleups



High-growth lists



Accelerator attendances



Major grant recipients



Management Buy-outs/ Buy-ins



Venture debt

Barclays Eagle Labs

Barclays Eagle Labs is a growing national network that provides business incubation, dedicated growth programmes, mentoring as well as co-working, and office space for ambitious high-growth businesses.

By cultivating a community of like-minded entrepreneurs and providing a collaborative work environment, access to peers, and opportunities to maximise growth through digital connections and growth programmes, curated events, and funding opportunities, Eagle Labs is able to help startups to grow at pace.

Eagle Labs also specialises in positively disrupting key industries by bringing together key corporate players, industry bodies, leading universities, and startups to enable rapid innovation and investment, by asking them to collaborate and currently have dedicated lawtech, healthtech, energytech and agritech industry-aligned programmes.

With various Eagle Labs dotted all across the UK and many more in the pipeline, our focus is to help to connect, educate, inspire, and accelerate ambitious UK businesses and entrepreneurs.

Find out more at labs.uk.barclays.

Important Information

We have pulled together the resources in this document for you to help with your independent research and business decisions. This document contains opinions from independent third parties and link(s) to third party websites and resources that we (Barclays) are not providing or recommending to you.

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Beauhurst

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

Their platform is trusted by thousands of business professionals to help them find, research and monitor the most ambitious businesses in Britain. They 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.

Beauhurst's 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

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