



Tech ***in the UK 2023*** ***Innovation Nation***

Regional report: Northern Ireland
March 2024



BARCLAYS

Eagle Labs



Funded by
UK Government



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.



Northern Ireland

Tech company population

In 2023, Northern Ireland's tech ecosystem remained stable, with 318 active companies. Although this region experienced a 6.25% decrease in equity funding to £105m, there is a surge in grant funding, increasing threefold to £63.6m. Notably, a single grant to clinical diagnostics firm Radox comprised 56.6% of the total grant funding.

There are 48 active spinouts from Northern Ireland, notably from Queen's University Belfast (QUB) and the University of Ulster, which produced 33 and 15 spinouts, respectively. pHion Therapeutics secured the most significant deal with £5.00m in equity for its vaccine development innovations in June 2023.

Northern Ireland's tech landscape is diverse, with leading sectors such as SaaS (100), followed by analytics and tools (68), and internet platforms (63). B-Secur exemplifies this cross-sector innovation, combining software with healthcare to enhance

medical device analytics. It has raised £32.7m across seven funding rounds.

The life and health sciences sectors stand out with 49 companies across pharmaceuticals, medical devices, and clinical diagnostics, supported by organisations like the Institute of Research Excellence for Advanced Clinical Healthcare (iREACH). In collaboration with the NHS, this Queen's University-led project aims to boost clinical trials in the Belfast Region, showcasing Northern Ireland as a significant hub for tech-driven health and life sciences innovation.

Northern Ireland		
Company population:	318	▲ 0.32%
Investment:	£105m	▼ -6.25%
Grants:	£63.6m	▲ 327%
Spinouts:	48	



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.

Belfast

Investment overview

From 2019 to 2023, Belfast's tech sector has collectively secured £298m in equity funding across 203 fundraising events. The city's tech ecosystem has experienced consistent year-on-year growth in equity investment volume since 2020.

Material Evolution secured the largest fundraising across the five year period, with a large £15.0m equity fundraising in June 2023. The company develops technology to enhance construction materials, with a focus on making low carbon cement from industrial waste streams. The large round involved investors At One Ventures, Playfair Capital, and CircleRock Capital, among others. To date, Material Evolution has raised £16.3m in equity investment alongside £2.97m in grant funding.

Techstart Ventures was the most active investor throughout this five-year period. By contributing to a total of 43 deals, it played a pivotal role in nurturing

the city's tech ecosystem. The fund has supported companies such as Cloudsmith, a software platform providing pipeline management for developers. The company has raised a total of £22.0m in equity funding via four rounds since its incorporation in 2018.

23.7k

Number of active companies

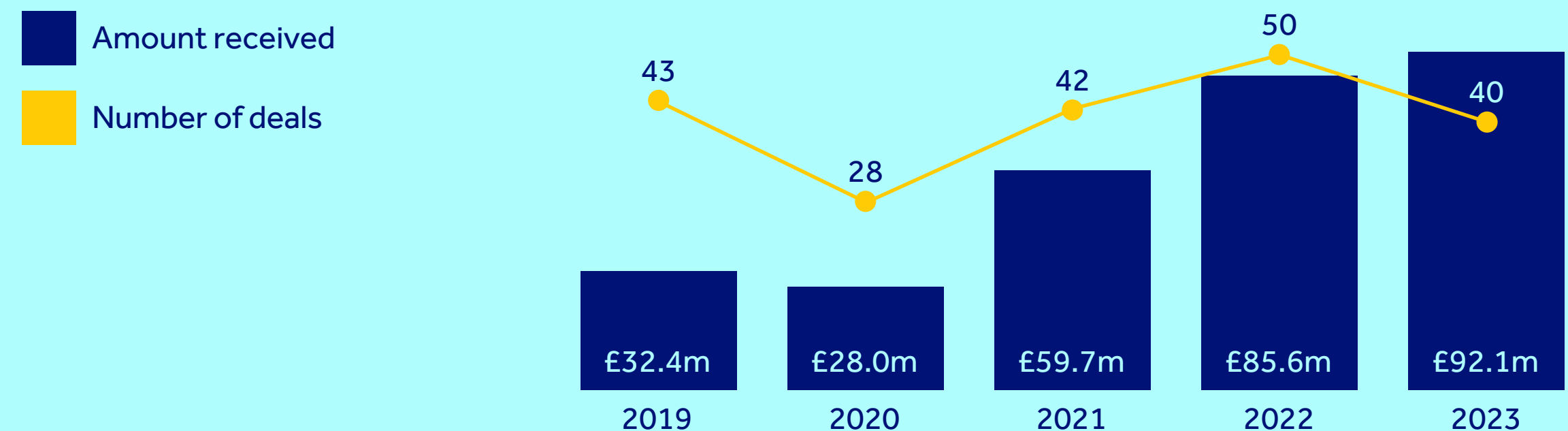
392

Number of active high-growth companies

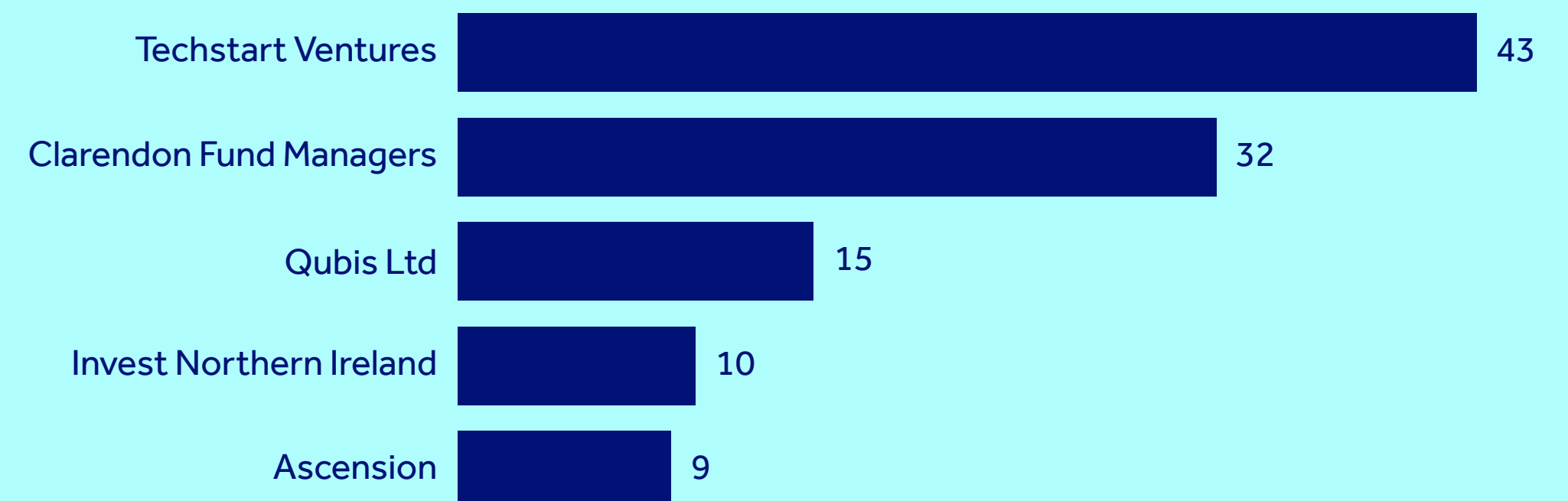
198

Number of active high-growth tech companies

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



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



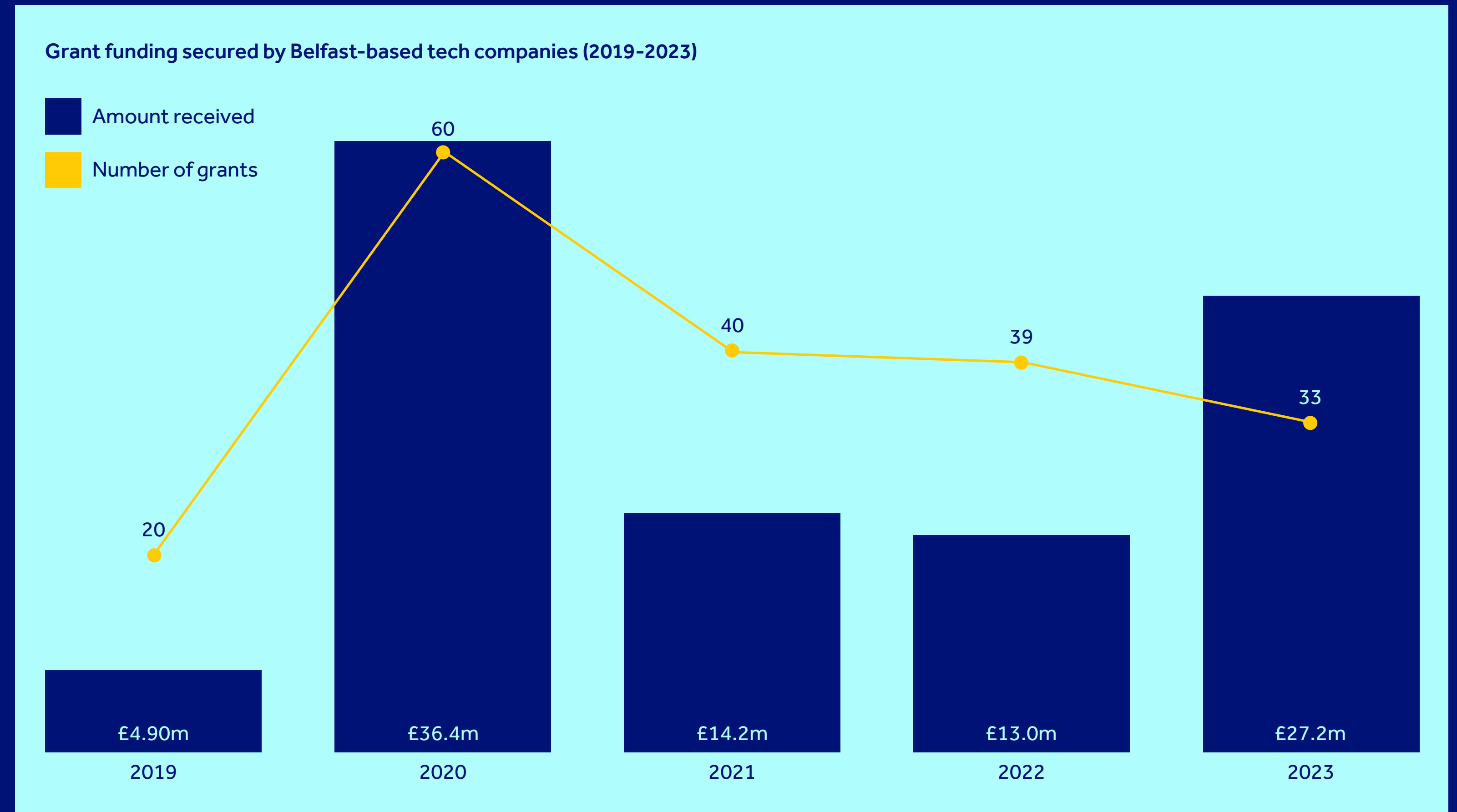
Belfast

Grant funding

Collectively, Belfast’s tech companies were awarded £95.7m worth of grant funding between 2019 and 2023. Both the amount and the number of grants awarded peaked in 2020, with a total of 60 grants worth £36.4m. A number of leading tech companies in the city have been awarded grants during this period. These companies include cybersecurity specialists Angoka, and AMPLY, a company developing antibiotics to target multi-drug resistant (MDR) pathogens.

Artemis Technologies is a notable recipient of grant funding in Belfast. The firm, which specialises in designing and developing advanced engineering solutions for the maritime sector, received a grant of £27.1m in 2020—the largest single grant awarded to an active tech company in the region across the five years. This grant was awarded by Innovate UK, and accounted for 74.5% of the total grant funding in 2020. In 2023, Artemis Technologies secured

another substantial grant, valued at £15.5m, which represented 57.0% of the total grant value for the year. This funding supported the firm’s ongoing projects and research, ensuring that Belfast remains at the forefront of maritime technological innovation.



Northern Ireland Survey stats

Of the participants working for organisations situated in Northern Ireland:

50.0%

Half felt that their region's finance options could improve.

61.4%

believed that the public and local grant-funding programs effectively supported their tech ecosystem

More than half

of the government initiatives evaluated received positive ratings, including SEIS/EIS: Seed Enterprise Investment Scheme/Enterprise Investment Scheme and Innovate UK.

24.0%

Nearly 1 in 4 singled out visa/international talent as the workforce challenge presenting the greatest

21.2%

cited the absence of entrepreneurial education and training as the main deterrent for young individuals considering entrepreneurship, closely followed by restricted access to resources and funding at 20.11%.

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.

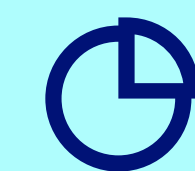
Academic spinouts

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



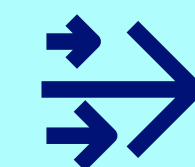
Academic spinouts



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.

Barclays (including its employees, Directors, and agents) accepts no responsibility and shall have no liability in contract, tort, or otherwise to any person in connection with this content or the use of or reliance on any information or data set out in this content unless it expressly agrees otherwise in writing.

It does not constitute an offer to sell or buy any security, investment, financial product or service and does not constitute investment, professional, legal, or tax advice, or a recommendation with respect to any securities or financial instruments.

The information, statements, and opinions contained in this document are of a general nature only and do not take into account your individual circumstances including any laws, policies, procedures, or practices you or your employer or businesses may have or be subject to. Although the statements of fact on this page have been obtained from and are based upon sources that Barclays believes to be reliable, Barclays does not guarantee their accuracy or completeness.

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

Contact

4th Floor, Brixton House
385 Coldharbour Lane
London
SW9 8GL

www.beauhurst.com

T: +44 (0)20 7062 0060

E: consultancy@beauhurst.com



Before you go

Get in touch if you would like to find out how we can support you and your business. We'd love to hear from you.



eaglelabs@barclays.com



labs.barclays



[Barclays Eagle Labs](#)



[@Eagle_Labs](#)



[Barclays Eagle Labs](#)



[@eaglelabs](#)



[EagleLabs](#)

Barclays Bank UK PLC is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority (Financial Services Register No. 759676). Registered in England.
Registered No. 9740322. Registered Office: 1 Churchill Place, London E14 5HP. Barclays Bank UK PLC adheres to The Standards of Lending Practice which is monitored and enforced by The Lending Standards Board. Further details can be found at www.lendingstandardsboard.org.uk.

Disclaimer

We're not responsible for, nor do we endorse in any way, third party websites or content.

The views and opinions expressed in this report don't necessarily reflect the views of Barclays Bank UK PLC, nor should they be taken as statements of policy or intent of Barclays Bank UK PLC. Barclays Bank UK PLC and its employees have made every attempt to ensure that the information contained in this document is accurate at the time of publication. No warranties or undertakings of any kind, whether express or implied, regarding the accuracy or completeness of the information is given. Barclays accepts no liability for the impact of, or any loss arising from, any decisions made based on information contained and views expressed in this document.