

Maximising the impact of university spinouts

The UK's research-intensive universities are world-class at commercialising their research; generating innovations that have local, national and international impact and supporting jobs across the UK

In 2021/22 businesses spun out of the 24 Russell Group universities alone supported over 80,000 jobs and generated £17.8bn in economic output. We look forward to working with the government to maximise the number of successful spinouts which, as set out in Rachel Reeves' Start-up Review, can directly drive economic growth and productivity gains across the regions and nations of the UK.

University technology transfer commercialises world-leading research

Technology transfer or commercialisation is the process of taking an idea or other intellectual property (IP) and turning it into a real-world product, process or service. University technology transfer is high-risk as it is dealing with new, often unproven technology. Innovators are typically supported in their efforts by university technology transfer offices (TTOs), focused on ensuring research has a positive impact in the world.

These TTOs usually do not make a profit. Instead, successful commercialisation ventures reinvest in new ventures and continued TTO activity, helping to boost spinout rates and reduce spinout failure. Currently, only one in ten university spinout companies in the UK fail, compared to the wider start-up environment where over half fail.²

UK universities are world-class in tech transfer. Their spinout companies raised £1.66bn in equity funding in 2023, 9.54% of all equity funding raised by UK companies,³ second only to the US in total investment in spinouts.⁴ This makes university commercialisation a striking UK success story. Examples of how our universities support spinouts and attract private investment include:

The universities of Bristol, Exeter and Southampton have partnered with the universities of Bath and Surrey to create SETsquared, the world's leading business incubator, which turns university research and innovation into thriving businesses. The partnership was established in 2002 and funded by HEIF, and since then more than 4,000 entrepreneurs have received wraparound support, helping them raise £1.8bn in investment. Independent analysis shows companies supported by SETsquared have delivered £8.6bn of economic impact and created 20,000 jobs across the UK. By 2030, the economic impact of SETsquared businesses is forecast to grow to £26.9bn.



Northern Gritstone is a groundbreaking investment company launched in July 2021 by the universities of Leeds, Manchester and Sheffield to support spinouts and high-growth businesses emerging from the three universities and their wider ecosystems, commercialising the region's world leading science and research. It combines strong returns for investors with wider positive, societal and economic impact, including supporting regional growth and high-skilled job creation and growth in the North of England. Having announced its first close of £215m in May 2022, it now deploys more than £300m of capital having attracted a broad investor base including pension funds.

Russell Group universities **Birmingham, Nottingham and Warwick** are cofounders of a new investment company that will accelerate the commercialisation of university spinouts and early-stage IP rich businesses in the midlands. Established with the support of other university partners from Midlands Innovation and public investment through the Higher Education Innovation Fund (HEIF), <u>Midlands Mindforge</u> is a patient capital investment company with plans to raise up to £250 million from strategic corporate partners, institutional investors and others. It aims to transform ground-breaking science and technology into successful businesses with real-world impact through equity investment and acting as a partner to entrepreneurs.

Universities are at the heart of the UK's entrepreneurial ecosystem

UK universities invest more heavily in commercialisation and provide a much wider range of support for fledgling tech businesses than their US counterparts. Their TTOs analyse an idea or invention's viability, file patents, help form business plans, hire CEOs, negotiate licences, find investors and often provide proof of concept funding.

US universities like Stanford, Harvard and MIT are embedded in the well-developed entrepreneurial ecosystems of Silicon Valley and Cambridge, Massachusetts, enabling them to licence IP to new companies without offering other business support. As the UK has less well-developed private sector support for these activities and a lack of early-stage investment, TTO support is vital to spinout success. According to the British Venture Capital Association, less than 7% (only £435m out of £6.4bn) of private equity and venture investments went into seed investments in 2022.⁵

The equity stake UK universities take in spinout companies reflects this heightened level of support, and thus the level of risk being taken. However, unlike many US universities, UK universities' equity is almost always dilutable, meaning it reduces over time as new investors come into a spinout. This means UK universities typically end up owning comparable shares of a company to their US counterparts (see Annex B).

UK universities can and do adapt their business support packages, and the IP offers attached to them, to their own local ecosystems, with equity shares reflecting the support provided. For example, **Imperial** has a Founder's Choice programme, where academic founders can retain up to 95% of founding equity with favourable terms such as low fixed royalty rates and simplified IP development planning. If they require more support the university can take a higher equity stake, offering both non-dilutable and dilutable equity options.

The independent review of university spinouts

The 2023 independent review of university spinouts highlighted UK universities' central role in spinning out companies and creating innovation ecosystems in every region and nation of the UK. It also provided an upto-date analysis of the spinout process, outlining that many perceptions about how universities approach spinout deals are based on outdated statistics. It found:

- once different practices on royalties and equity dilution are correctly accounted for, deal terms
 offered by UK universities are now comparable to those taken in leading US institutions
- the average equity share for UK university spinouts has decreased from 25% to 18% in the past ten years, and many of the top ten UK universities are doing deals at 5-15% equity



- there is a perception that the spinout process can take an unnecessarily long time, however, there is
 no comprehensive data to back this up and the average spinout process is in fact 11 months, and a
 quarter take 4-6 months⁶
- spinouts from universities in London, the Southeast, and East of England receive 74.5% of all spinout investment. Scotland receives 17%, while all other regions combined receive less than 10% indicating that more work needs to be done on attracting and leveraging private investment in the regions and nations.

All Russell Group universities have already reviewed, or are in the process of reviewing, their spinout policies to bring them in line with the recommendations of the Independent Review. This means typical deal terms for spinouts will follow terms guidance written by the TenU (an international collaboration of leading university tech transfer offices), which recommends universities should typically consider taking in the range of 10-25% equity for life sciences spinouts⁷ and 10% or less for software spinouts.⁸ This supports the ambition set out in the Start-Up review to foster greater transparency for spinout founders.

How universities and government can work together to support the university spinout ecosystem

Russell Group universities are keen to work with the government to ensure our world-leading research can have positive, wide ranging social and economic impact across the whole of the UK. To support the further development of the spinout ecosystem, the government could:

- Launch a 'Spark Fund' to invest in early-stage university spinouts in every region and nation of the UK. This could be supported through the new National Wealth Fund and/or bolstered by the strengthened mandate of the British Business Bank. With nearly 60% of university spinouts at the seed stage⁹ (where investments are typically less than £1 million), this fund could release untapped potential, particularly outside the Golden Triangle, and catalyse the growth of new companies by filling a gap in investment. This is particularly needed for deep-tech spinouts where the technology is revolutionary and disruptive, but takes a long time to reach the market, which has historically meant venture capitalists and industry partners have been reluctant to invest.
- Increase Higher Education Innovation Fund (HEIF) allocations, as well as ensuring similar funding is always made available in the Devolved Nations. This type of funding has an excellent track record of success HEIF, for example, providing a return on investment of £12 for every £1 invested. 10 HEIF underpins universities' core innovation activities, allowing universities to leverage private investment and build capacity for tech transfer.
- Pilot and, once tested, scale the proposed UKRI proof-of-concept spinout fund to support the de-risking of high potential UK companies before they spin out of the university.
- Unlock institutional investment for high-risk, high-growth spinout companies, building on the Mansion House reforms and Labour's manifesto commitment and recommendation in the Start-up review to consider further reforms to the pension system. This would bring the UK in line with global competitors and create a step change in access to finance for spinouts.
- Support our sector by promoting the UK's research-intensive universities internationally as centres of global R&D excellence to attract additional foreign direct investment (FDI) into the spinout ecosystem from the both the private sector and in philanthropic donations.



Annex - Equity dilution in practice

In order to raise new capital, spinouts will go through funding rounds where they issue new shares in exchange for funding. Each time a spinout issues new shares, the share of equity each current owner holds will be reduced as new shares are issued, unless otherwise agreed (which is not usually the case in UK spinout deals but is typical in the US). An example will help to illustrate how this works in practice. This is a real-life example of a spinout from a Russell Group university:

Stage of company's development	What happened at this stage	Equity ownership at the end of this stage
Incorporation (2020)	Company was legally incorporated	Founders (academic and commercial): 75.0%University: 25.0%
Seed funding round (Feb 2021)	 Company was valued at £3.4 million £1.3 million of funding raised 	Founders: 52%University: 18%Investors: 31%
Second seed funding round (Mar 2022)	 Company is valued at £11 million £2.15 million of funding raised Some of this funding comes from the university 	Founders: 44%University: 15%Non-university investors: 41%

As the table shows, both founders' and universities' share of equity drop rapidly as new investors buy shares in each round, whether or not the cash value of that equity goes up. The university's share reduced by just under 40% (from a 25% stake to a 15% stake) even at the seed stage, and this would have gone down further had it not chosen to invest some more money itself.

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¹ The economic impact of research & commercialisation activities at Russell Group universities, London Economics (2024)

² University Spinouts Report, Anderson Law (2018)

³ Spotlight on spinouts, Beauhurst (2024)

⁴ University spin-outs doubled fundraising in the last decade, Global University Venturing (2023)

⁵ Report on Investment Activity, BCVA (2022)

⁶ Independent review of university spin-outs, page 11, UK government (2023)

⁷ University Spinout Investment Terms (USIT) Guide, TenU (2023)

⁸ USIT Guide for Software, TenU (2024)

⁹ Spotlight on spinouts, Beauhurst (2024)

¹⁰ Calculated from figures in <u>Assessing the Gross Additional Impacts of the Higher Education Innovation Fund (HEIF) An update for the period 2015/16 – 2018/19.</u> Ulrichsen, Tomas Coates (2021)