

## **Spending Review 2025:**

Delivering growth and opportunity across the UK through research, innovation and high-level skills

## 1. Executive Summary

The government has set out a vision for a decade of national renewal, with a target for the UK to lead the G7 nations in sustained economic growth. The UK's tough fiscal situation means the government faces difficult choices at this Spending Review (SR) and will rightly want to secure the best return possible for every pound of public investment. Maximising the value which the UK's assets can deliver – including its world-leading universities and researchers – will be crucial to driving growth, improving public services and raising living standards across the country.

## For our part we will:

- Utilise our research, innovation and skills as engines for growth, transforming UK towns and cities, creating clusters of high-value activity and boosting regional development.
- **Help break down the barriers to opportunity** by addressing educational inequality and ensuring provision delivers best value for students and meets UK skills needs.
- Act as key delivery partners for the Industrial Strategy, working with business of all sizes to support growth across priority industrial sectors.
- Support efforts to build an NHS fit for the future, training the future workforce and providing a pipeline of innovations to deliver better outcomes for patients.
- Champion UK prosperity whilst helping to safeguard national security, working with government and the security services to protect research from hostile actors, secure UK advantage in key technology areas and boost exports.

Our universities are committed to realising efficiencies across their operations and are exploring opportunities to share specialist, high-cost facilities, services and procurement. However, the sector is facing severe financial pressures including subsidising UK research activity by £5.3bn per annum. Providing stability on policy and being ambitious with targeted growth-focused investment and other policies would unlock the full potential of research-intensive universities to change lives, create wealth and make every part of the UK better off. **We therefore encourage government to:** 

- Boost UK R&D-intensity and support innovation-led growth. Steadily increasing public R&D investment over the SR period would provide the opportunity to address the real-terms decline in quality-related (QR) research funding, build capacity to commercialise more research through the Higher Education Innovation Fund (HEIF), and improve cost recovery on research grants. In turn, this would enable universities to pursue innovative and high-risk, high-reward research, generate more high-value spinouts and intellectual property, and ensure the UK's research base remains agile, responsive and sustainable.
- Secure a long-term funding landscape that supports universities to deliver the
  pipeline of skills required to drive innovation, improve the UK's public services, and
  boost economic growth. This should include tuition fee caps increasing with inflation and
  other measures to increase per student funding (e.g. through the Strategic Priorities Grant).
- Harness research-intensive universities' global prestige and partnerships to boost
   UK foreign direct investment (FDI) and exports. This requires a welcoming offer to
   international students and staff with stable, affordable and internationally competitive visa
   routes. Integrating universities' contributions into the wider UK offer to international
   investors and working with the sector on a new global strategy for universities and research
   would also help expand new markets and drive growth in priority industrial sectors.

## 2. Research and innovation as engines for economic growth

#### The impact of public R&D on growth and productivity

In the context of a tough fiscal climate, government has set an ambitious goal for the UK to achieve the highest sustained growth within the G7. Driving innovation is a key pillar of the new growth strategy, and continued support for research breakthroughs which advance healthcare, tackle climate change and rejuvenate business will be crucial to transforming the UK's economy.

The UK undoubtedly has one of the best research systems in the world¹ and the breadth and depth of expertise in world-leading universities from social science to particle physics means that there are few research and innovation challenges that they can't tackle with the right support and demand:

- Synthesia, a company originating from University College London whose technology allows
  users to create Al-generated videos by typing text, reached 'unicorn' status recently with a
  market value in excess of \$1bn.
- Research at the University of Glasgow into rehabilitation after suffering a stroke not only improves patient outcomes but is estimated to deliver annual savings over five years of £1,600 per patient for healthcare and £8,400 for social care.
- Research to develop applications for graphene at the University of Manchester has led to a new graphene-chip implant being trialled which could transform brain tumour surgery, and technology which could charge batteries five times faster and make concrete 35% stronger.

Many businesses conduct their R&D in the UK because they want to work closely with research-intensive universities and the innovation clusters they support: from Unilever in Liverpool, and GSK in Oxford and Cambridge, to JLR in Warwick, Rolls-Royce in Nottingham and Boeing in Sheffield. Many smaller businesses also benefit significantly from their links to research-intensive universities, such as those in the creative and bio-industries around York. Universities provide access to cutting-edge research, a pipeline of highly skilled people working at the forefront of their fields and access to state-of-the-art facilities and infrastructure. These partnerships solve complex industrial challenges, contribute to increased productivity, attract additional private sector investment and drive economic growth across the UK.

University expertise in cutting-edge research is transforming UK towns and cities, creating thriving clusters of high-value activity and helping to deliver the government's growth mission. For example, London Economics analysis has found that for every £1 of public funds invested in research at Russell Group universities, more than £8.50 is generated for the UK economy – and as a result, our universities' research and commercialisation activities deliver almost £38bn for the economy every year (in addition to wider productivity spillovers).² This activity supports more than a quarter of a million jobs right across the country, twice as many as in the chemical and pharmaceutical manufacturing industries combined.

Evidence shows how investment in public R&D is crucial in stimulating private R&D investment, offering a strong and enduring return on public investment that benefits the economy. New research from the NCUB shows £1 of public R&D investment stimulates between £3.09 to £4.02 of private R&D investment in the long term.<sup>3</sup> Importantly, around 60% of this "leverage effect" is realised in the first three years. Early public investment in R&D across the SR period will therefore have a significant effect in stimulating private investment, with knock-on consequences for

<sup>&</sup>lt;sup>1</sup> The UK contributes 7% of the world's research articles and nearly 14% of the most highly cited articles, while accounting for only 2.5% of global R&D funding.

<sup>&</sup>lt;sup>2</sup> The economic impact of the Russell Group universities' R&D activities, London Economics (2024)

<sup>&</sup>lt;sup>3</sup> Unlocking growth: The impact of public R&D spending on private sector investment in the UK, NCUB (2024)

economic growth and productivity. Indeed, separate research commissioned by DSIT suggests that whilst productivity growth has slowed since 2008, the effects of the financial crisis and pandemic on the UK's productivity would have been far more pronounced if it weren't for increased public investment in R&D over the period.<sup>4</sup>

The strength of the UK research system is, at least in part, a result of its funding allocation method. Flexible, longer-term funding through quality-related research (QR) funds complements a grant-based approach to research by ensuring there is a pipeline of new ideas, talent and infrastructure to underpin innovation in areas which have not yet emerged as the global challenges of the future. Without QR funding, and its equivalents in the devolved nations, we would not have had innovations and discoveries such as graphene, genomics, opto-electronics, cosmology research, and new tests and treatments for everything from bowel disease to diabetes, dementia and cancer.

Alongside the UK's strength in discovery research, our country has a track record of success in commercialising university research (and other ideas).<sup>5</sup> This is generating innovations that have local, national and international impact and supporting jobs across the whole of 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.<sup>6</sup>
- UK university spinout companies raised £1.66bn in equity funding in 2023, 9.54% of all equity funding raised by UK companies. The UK was second only to the US in total investment in spinouts.<sup>7</sup>
- In 2021/22, US and UK universities produced a comparable number of spinouts and patents relative to total research income – demonstrating how efficient UK universities are in delivering impact from research income.<sup>8</sup>
- In recent years, research-intensive universities have worked collaboratively to create affiliated funds to invest in spinouts. For example, the Universities of Leeds, Manchester and Sheffield are co-founders of Northern Gritstone, an investment company focused on commercialising university spinouts with successful start-ups ranging from therapies for neurological diseases to renewable bioplastics. Early-stage business investments have surged from £28m in 2019 to £300m by the end of the 2023/24 financial year.

Continuing to grow R&D investment for the UK, including in discovery research, will be crucial to creating new industries, leveraging private investment and delivering high-value jobs across the country. In addition, close engagement with the government's mission boards, including on growth and opportunity, would ensure research-intensive universities' contribution to achieving these missions is fully integrated into the government's plans.

#### Becoming a leading G7 nation for R&D intensity

R&D funding has increased in recent years, but the UK still lags behind competitors on public investment in R&D as a proportion of GDP. Government could use the opportunity of a new, long-term approach to R&D strategy to boost UK R&D-intensity, "crowding in" significant private investment and driving UK growth and productivity.

The UK is at a critical juncture to determine its role as a world leader in science and innovation. While R&D is now clearly recognised as a crucial economic investment underpinning growth and prosperity, and public funding has seen a very welcome increase in recent years, the UK still lags

<sup>&</sup>lt;sup>4</sup> Returns to Public R&D: Report for DSIT, Frontier Economics (2024)

<sup>&</sup>lt;sup>5</sup> Alongside work to support spinouts and start-ups, licensing intellectual property constitutes a significant share of commercialisation income and delivers real-world impact.

<sup>&</sup>lt;sup>6</sup> See footnote 2.

<sup>&</sup>lt;sup>7</sup> University spinouts doubled fundraising in the last decade, Global University Venturing (2023)

<sup>&</sup>lt;sup>8</sup> An update on IP-related and commercialisation activities in England in 2021/22, UKRI (2023)

behind competitor nations in R&D intensity (the proportion of GDP invested in R&D). The latest data shows the UK's research intensity stood at 2.9% in 2021 (behind the US at 3.5%, Japan at 3.4% and Germany at 3.1%) - see **Figure 1** below. Indeed, expenditure on all domestic R&D funded by the UK Government falls well below peer countries, with the UK in 27<sup>th</sup> place in the 36 OECD nations.<sup>9</sup>

Strategic partnerships with business mean universities in the UK receive a higher share of their research income from industry than their US counterparts. However, the UK is lagging behind leading R&D-intensive nations including the US, Japan and Germany in business enterprise expenditure on R&D (BERD) and is at risk of falling further. Data published this year indicated a decline in UK business investment in R&D for the first time. In contrast, business R&D investment grew globally by 5% over the same period.

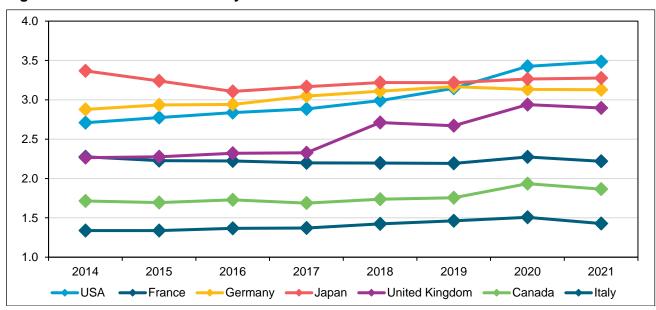


Figure 1 – trends in R&D intensity for the G7 nations<sup>12</sup>

We welcome the government's intention to scrap short-term funding cycles and to provide greater stability in funding R&D. Additional public and private investment in R&D will be crucial in enabling universities, businesses and a range of other stakeholders to help deliver the government's aim for the UK to lead the G7 in sustained economic growth. We therefore recommend setting an investment trajectory to enable the UK to reach, and remain in, the top three nations in the G7 for R&D intensity by 2029/30. This would generate a raft of new scientific discoveries and novel technologies and help to drive growth in towns and cities right across the country, as well as securing the UK's international competitiveness in science and research.

Setting a spending profile whereby the UK's research intensity would reach 3.25% by 2029/30 would see the UK overtaking Germany (on current projections), reaching and remaining in the top three G7 nations for R&D intensity. It would also enable the government to leverage significant additional private investment in R&D – see **Figure 2** below.

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<sup>&</sup>lt;sup>9</sup> 'Independent Review of the UK's Research, Development and Innovation Organisational Landscape: Final Report and Recommendations' (2023)

<sup>&</sup>lt;sup>10</sup> Industry income represented over 11% of research income for UK universities in 2021 (the latest date for which data is available in the US), compared to 4.3% for US institutions. <u>TRAC (2021/22)</u>; <u>Science and Engineering Indicators</u>, National Science Board.

<sup>&</sup>lt;sup>11</sup> Main Science and Technology Indicators, OECD (2024)

<sup>12</sup> Ibid.

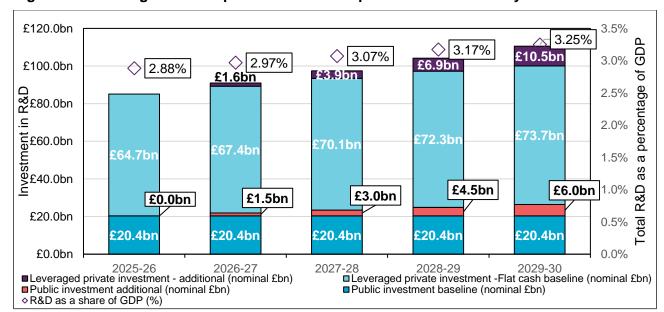


Figure 2 - investing in R&D to put the UK in the top three G7 countries by 2029/30<sup>13</sup>

Investing to reach the top three G7 nations for R&D intensity would leverage over £10bn extra private investment per year by 2029/30 and over £23bn cumulatively over the period 2026/27 to 2029/30, compared to a flat-cash scenario. See Figure 3 below.

Figure 3 – difference in leveraged private investment between spending scenarios

£bns	Flat-cash settlement	UK in G7 top three for R&D intensity
Additional private investment in 2029/30	0	10.5
Additional private investment over five years (cumulative)	0	22.9
UK R&D intensity by 2029/30	2.77%	3.25%

## Supporting future breakthroughs and improved resilience for the UK

University R&D is expanding human knowledge, advancing society, and driving economic growth through the creation of new products, spinouts and jobs. QR funding plays an essential role in achieving this impact, enabling universities to deliver long-term strategic projects, pursue high-risk, high-reward research, and ensure the UK's research base remains agile and responsive.

The UK's "dual support" system enables universities to pursue innovative and high-risk, high-reward research, balanced by direction from government and funders in setting the UK's overall R&D strategy. The rapid pace of progress in vaccine development and treatment of Covid-19, for example, was only possible because universities could tap into established discovery research funded by QR and redirect existing resources at pace.

 QR funding enabled researchers at the University of Oxford's Jenner Institute to pivot and adapt their existing research on MERS (Middle East Respiratory Syndrome) to target Covid-19, meaning they could commence development of a vaccine as the genetic code of the new coronavirus was released. The resulting Oxford-AstraZeneca vaccine saved 6.3 million lives in the first year of the global vaccine rollout.

<sup>&</sup>lt;sup>13</sup> Russell Group modelling using NCUB research (see footnote 3) to project return on investment for R&D and using OBR estimates for GDP and inflation projections.

The flexible nature of QR also enables universities to act quickly to leverage industry opportunities and additional investment into the UK. For every £1 received in mainstream QR at Imperial in 2022/23, the institution attracted £5.88 in research grants and contracts from industry, charities, and governments.<sup>14</sup>

- Imperial's Molecular Sciences Research Hub is the most advanced molecular science facility in the world. The facilities, which are supported by QR funding, include the Centre for pulse electron paramagnetic resonance (PEPR) and the Centre for Rapid Online Analysis of Reactions (ROAR). Local SMEs and industrial partners access these facilities and Imperial expertise, helping growing businesses to test their products. Half of the equipment time in the ROAR facility is utilised by SMEs and industrial companies.
- The University of Birmingham has invested more than £3m of their QR funding in Tyseley Energy Park, a new facility in partnership with industry and government. It is influencing the development of regional infrastructure for renewable heat and power, energy storage, clean transport fuels and advanced waste processing.

QR is a cost-effective way of funding research: it has been estimated that REF 2021 only cost 3-4% of the total QR funding it will allocate in England. Indeed, a 2014 study of five different high-research productivity countries showed that countries which allocate more resources through QR-like mechanisms spend less public money per citation and publication, while historic studies in the UK and Australia suggest materially lower administrative costs as a percentage of funding disbursed. For universities, the low administrative burden and costs associated with QR funding means they can invest more in research and talent, bridge research talent between funding grants and maximise returns for the UK's economy and society.

However, strategic uses of QR funding are at risk as institutions are having to increase investment to meet the full economic cost of research. The proportion of research costs covered by external funders has decreased over time<sup>17</sup>, and so has external funding for capital projects. In England, this has been compounded by a 16% drop in real-terms QR funding from 2010/11-2024/25 compared to an increase in Research Council grant funding over the same period.<sup>18</sup> Even more severe declines in the value of QR-equivalent funding are being seen in the devolved administrations.

To maintain the agility, innovation, and long-term planning that it affords, we recommend:

- The decline in value of QR funding is addressed across the UK's nations, and in future the funding is linked to inflation to prevent erosion of its value over time.
- When new R&D commitments are introduced, QR funding should be uplifted to ensure the research base is supported to deliver on new priorities.

## Supporting the sustainability, impact and efficiency of the research base

The current funding model for research is becoming more difficult to sustain as universities draw increasingly on external income streams that can be subject to unpredictable political and economic shifts. There is now an opportunity for universities, funders and government to work together to put research on a more sustainable footing. This will be essential in maximising the scientific, social and economic returns of the UK's world-leading research base.

<sup>&</sup>lt;sup>14</sup> QR driving excellence

<sup>&</sup>lt;sup>15</sup> REF 2021 Cost Evaluation: Final report, Technopolis (2023)

<sup>&</sup>lt;sup>16</sup> Public funding of science: An international comparison, CPB Netherlands Bureau for Economic Policy Analysis (2014)

<sup>&</sup>lt;sup>17</sup> Annual TRAC 2022-23: Sector summary and analysis by TRAC peer group, Office for Students (2024)

<sup>&</sup>lt;sup>18</sup> Change in the real terms value of non-hypothecated QR funding in England. This includes mainstream QR, CRSF, business research element, RDP supervision fund and National Research Libraries. CPI academic year deflator 2024/25, What Research England has funded UKRI (2010-2023)

As noted above, UK universities are receiving a lower proportion of the costs of research projects than previously. In 2022/23, on average UK universities received 69% of the cost of their research from funders, down from 75% in 2015/16.<sup>19</sup> This includes grant funding from UK Research and Innovation (UKRI) and QR (and its equivalents), and is despite UKRI typically intending to provide 80% of the full economic cost (FEC) of research projects.

Income from international student fees, philanthropy and other commercial activities universities undertake now plays a critical role in filling the gap and maintaining the sustainability of publicly funded research in the UK. Indeed, universities are now one of the biggest funders of research in the country, investing over £5.3bn annually to support a thriving UK research base – see **Figure 4** below.

4000 3447 3000 Universities make a surplus 2000 on these activities... 682 1000 0 -148 등 -1000 -2000 -1725-3000 ...to cross-subsidise -3052 these activities -4000 ...but still face -5000 a deficit overall -5307 -6000 Other (non-commercial) activities Other activities Total Research Feaching (non-publicly funded) Feaching (publicly funded)

Figure 4 – university sector contribution to research versus cost recovery in other activities, 2022/23<sup>20</sup>

However, volatility and competition in the international student market, along with a more challenging UK visa regime (see section 6), purchasing power being eroded by inflation and

<sup>&</sup>lt;sup>19</sup> TRAC data (2015/16 - 2022/23)

<sup>&</sup>lt;sup>20</sup> TRAC full economic cost surplus/(deficit) by activity, 2022-23, for UK higher education institutions. <u>Annual TRAC</u> 2022-23: Sector summary and analysis by TRAC peer group, Office for Students (2024)

increasing deficits on educating domestic students, mean this important investment in UK research by universities cannot be taken for granted. This has also been compounded by the real-terms decline in QR funding.

Unless these pressures are addressed, we expect that overall capability of the university sector to perform R&D may at best plateau or, more likely, even decline over the next few years. In the short-term, funders with lower FEC recovery rates, such as charities, are likely to be impacted. In the longer-term, we would expect to see an impact on the volume of UKRI-funded research applications.

We are keen to continue working with government, UKRI and other funders, to identify and address the hidden factors causing the unintended decline in FEC recovery rates. Factors contributing include:

- Grant adjustments not appropriately accounting for inflation of research costs.
- Researchers underestimating costs on their grants to be competitive.
- Increasing levels of match funding requested from universities to secure a grant.
- Increasing costs that are ineligible for grant funding e.g. data storage after a grant ends.

Improving the FEC recovery rates of research will aid in strategic planning and prioritisation for both the government and universities and help deliver a financially sustainable research system. This will be essential in securing the volume of research breakthroughs required to transform the delivery of public services and deliver a pipeline of innovative new products and services to power the UK's economic growth.

These efforts should be accompanied by a renewed drive to reduce unnecessary costs within the research system and maximise the return on investment for public spending. These costs have grown over a number of years due to a lack of shared understanding of the volume and impact of bureaucracy on the efficiency of the UK system. Reviews commissioned by the previous government made welcome recommendations to improve coordination and standardisation across the sector, streamline the funding application process and free up time for grant holders to focus on research.<sup>21</sup> Implementing these recommendations would help to ensure a proportionate and risk-based model of regulatory compliance for research, maximising opportunities to increase productivity and deliver growth.

## 3. Breaking down barriers to opportunity

#### Helping under-represented students succeed in higher education

Research-intensive universities have a key role to play in breaking down the barriers to opportunity. Building on our extensive collaborative work with schools, colleges and charities, universities can partner with government to help address educational inequality and improve life chances for young and adult learners across the UK.

Existing inequalities earlier in the education system have been exacerbated by the loss of learning during the pandemic and the high cost of living. Persistently disadvantaged pupils (those consistently eligible for free school meals) are now around one year behind their more advantaged peers by the end of primary school and almost two years behind by the end of secondary school.<sup>22</sup>

Despite the worsening scale of the challenge, steady progress has been made to improve access to higher education for students from under-represented backgrounds. The number of young

<sup>&</sup>lt;sup>21</sup> Independent review of research bureaucracy: final report (2022); Independent review of UK Research and Innovation (2021)

<sup>&</sup>lt;sup>22</sup> Education Policy Institute Annual Report (2024)

students from the most under-represented areas studying at Russell Group universities is growing, with a 56% increase since 2019.<sup>23</sup> This has been the fastest-growing demographic at our universities over the past five years, with the gap between the least and most represented students narrowing over time.<sup>24</sup>

Once under-represented students are on campus, our universities provide support to ensure they can succeed on their degree courses and beyond. Students from deprived backgrounds perform extremely well at Russell Group universities, and comfortably above the quality thresholds set by the Office for Students (OfS). For example, 74% of students who were eligible for free school meals studying at English Russell Group universities progressed onto highly skilled employment or further study. This compares to the sector figure of 66% and OfS threshold of 60%. Our universities recognise, however, that more can be done to accelerate the rate of change.

Russell Group universities in the devolved nations are committed to helping under-represented students to succeed in higher education. For example:

- The University of Glasgow partners with six FE colleges in Scotland and offers underrepresented students the opportunity to articulate directly into year 2 of an undergraduate degree after the completion of a Higher National Certificate.
- Cardiff University's Discovery programme supports young people with autism spectrum conditions to develop the skills and confidence needed for university and beyond.
- Now in its seventh year, the Pathway Opportunity Programme (or POP!) at Queen's
  University Belfast works with schools across Northern Ireland to provide an entry route to
  Queen's for talented young people with the ability to thrive but who may need additional
  support and encouragement to fulfil their potential.

English Russell Group universities have also set ambitious targets through the latest round of Access and Participation Plans to improve equality of opportunity for under-represented students over the next four years. The Plans cover interventions designed to improve access and eliminate gaps in continuation, completion, degree attainment and progression to highly skilled work or further study. For example:

- On increasing access: The University of Oxford is aiming to increase the proportion of entrants eligible for free school meals by 40% by 2029. The University of York is aiming to double the percentage of Black students enrolled by 2029.
- On continuation: The University of Liverpool is aiming to reduce the continuation gap between students from the most and least deprived areas by over 60%. The University of Birmingham has set a target to improve continuation rates for young care-experienced students, eliminating the gap between them and young students with no care experience by 2028.
- On degree attainment: The University of Nottingham has set a target to halve the degree awarding gap for Firsts and 2:1s between mature and young students by 2029. The University of Warwick is aiming to eliminate the awarding gap between White and Black students by 2035, and to halve the gap over the next four years.
- On progression to highly skilled employment and further study: Queen Mary
  University of London has set a target to reduce the progression gap between Bangladeshi
  and White graduates by a third over the next four years. The University of Exeter is aiming
  to eliminate gaps in progression between disabled and non-disabled students, and between
  students from the most and least deprived areas of the country. The University of
  Cambridge will offer a minimum of 160 funded research experience placements by 2029 to
  expand progression to postgraduate study for under-represented students.

<sup>&</sup>lt;sup>23</sup> Number of POLAR4 Q1 18-year-old placed applicants 2019-2024, End of cycle data, UCAS (2024)

<sup>&</sup>lt;sup>24</sup> Based on trends in the ratio of Q5 to Q1 students at Russell Group universities.

<sup>&</sup>lt;sup>25</sup> Student Outcomes data 2022-23, Office for Students (2024)

Our universities recognise the value of diversifying their campuses and supporting all their students to reach their full potential. Educational inequality comes at a cost to both individuals and the country. A joined-up, cross-government approach, involving universities, schools, colleges and other partners, is needed to address the social, cultural and financial barriers faced by under-represented students in accessing and succeeding in higher education.

Rising living costs are impacting every aspect of students' lives and experience at university including their studies, ability to form social connections and their mental health and wellbeing. Students who are already disadvantaged are some of those being hit the hardest by financial pressures. The financial challenges faced by students are compounded by the fact that previous governments failed to raise maintenance loans in line with inflation. Institute for Fiscal Studies research shows that in 2025/26, the poorest students will be entitled to borrow around £1,125 (10%) less in real-terms towards their living costs than in 2020.

While universities are doing what they can to help with rising living costs, wider support is needed for all students.<sup>28</sup> **To help ease the growing financial pressures on students we encourage the government to undertake a review of maintenance arrangements.** This should include:

- **Improving maximum maintenance support overall** (whether through loans and/or grants) and ensuring the package is fair and affordable for all students.
- Reintroducing maintenance grants for the most disadvantaged students, to ensure these students do not graduate with the highest levels of debt.
- Reviewing the parental earnings threshold below which students are eligible for the maximum level of maintenance support. The threshold has been frozen in cash terms at £25,000 since 2008. Had this threshold increased with earnings it would now be closer to £35,000 and many more students would be eligible for the maximum level of support.

#### Delivering high-level skills for growth

Highly skilled graduates will form the bedrock of a resilient workforce, fuelling our R&D and industrial strategy ambitions, and driving productivity. Reforms to create a Growth and Skills Levy and a renewed vision for Lifelong Learning Entitlements should support provision of the high-level skills needed by industry and the public sector, and, ultimately, drive the UK's growing economy.

One third of annual average UK productivity growth is attributed to an expansion of skills in the workplace, with increasing university student numbers playing a crucial role in preventing a steeper decline in UK productivity.<sup>29</sup> DfE's labour market and skills projection for the UK showed that demand for those educated beyond a bachelor's degree will increase by 53% between 2023 and 2035, the biggest increase for any qualification level.<sup>30</sup>

However, despite this increased need, the number of new researchers starting a postgraduate qualification in the UK has decreased by 12% between 2018/19 and 2022/23.<sup>31</sup> This is coupled

<sup>&</sup>lt;sup>26</sup> <u>Sutton Trust research</u> found in 2024 that essential costs are higher than the maximum loan for 57% of students, and for 19% of students, housing costs alone are higher than the available loan. Over a quarter (28%) of undergraduates have skipped meals to save on food costs, with a third (33%) of students from working class families doing so.

<sup>&</sup>lt;sup>27</sup> 'Annual report on education spending in England: 2024–25', Institute for Fiscal Studies (2025)

<sup>&</sup>lt;sup>28</sup> Russell Group universities have strengthened measures to support students impacted by cost-of-living pressures. This includes expanding bursary support and hardship funding as well as ensuring students have access to warm spaces and subsidised food, increasing campus employment opportunities and employing trained money advisers. Overall, the support provided by Russell Group universities equates to tens of millions of pounds each year.

Skills and UK productivity (2023)
 Labour market and skills projections (2024)

<sup>&</sup>lt;sup>31</sup> The 12% decrease in new postgraduate researchers (PGRs) represents the difference between the peak year of PGR students entering the system (2018/19) and the most current data available (2022/23). The decrease in new postgraduate researchers is being driven by a 53% fall in PGRs coming from the EU.

with evidence suggesting only 29% of those currently working in research felt secure pursuing a research career.<sup>32</sup> Working with researchers and funders, the Russell Group has already produced a <u>toolkit of actions</u> funders, universities and publishers can take to collectively strengthen research culture in the UK in order to attract and retain research staff.

The Russell Group has also been working to share good practice on how to support early-career researchers, from EDI backgrounds, and those working at the NHS/research interface in order to grow the researcher workforce. Our universities will continue to work with UKRI and industry to secure a skilled pipeline of research talent for the UK. To support this, the government should ensure the funding package is sufficient to enable the PhD training needed to meet the UK's research ambitions.

More broadly, we look forward to working with Skills England to help map current and expected skills gaps, which should include higher-level skills and postgraduate researchers. This should encompass a consideration of education and skills requirements in an Al-driven world, the role of tertiary education in delivery, and the need to attract global talent.

Our universities are committed to delivering successful outcomes for all learners. They ensure students have a high-quality student experience, with diverse opportunities that include re-training and upskilling, and are supported to succeed during their studies and beyond.

- In 2024, 81% of Russell Group graduates were in full-time employment and/or further study 15 months after graduation, and 82% of those in employment reported they were in highly skilled jobs.<sup>33</sup>
- Our universities are increasingly working with regional partners including FE colleges, schools, industry and local governments to provide the skilled workforce needed in their communities, and we will aim to deepen these regional partnerships in future.
- For example, 17 Russell Group universities currently offer apprenticeships in partnership with employers, with over 3,600 students starting higher level apprenticeships (levels 6 and 7) in 2023/24 in fields ranging from AI and digital skills to healthcare.<sup>34</sup> This provision is helping to train the higher skilled professionals needed to increase efficiency, innovate and transform our public services, as well as drive productivity in industry.

Universities are keen to work with Skills England, employers and FE colleges to identify high-value courses, responding to industry needs, that could be funded by a more flexible Growth and Skills Levy. We urge government to ensure this continues to support higher-level apprenticeships, for all ages, and other kinds of training that deliver productivity gains for the UK.

Designing an effective system to support lifelong learning will be crucial to meeting the UK's skills needs, especially after 2030 when demographic changes mean the number of 18-year-olds in the population will decline. We therefore welcome government's intention to set out a renewed vision for Lifelong Learning Entitlements. Any system of lifelong learning needs to be flexible enough to meet the needs of learners at every stage of their skills journey, from basic skills to completing a postgraduate professional qualification. Universities will need to become more agile in building industry-relevant short-courses that continue to champion quality and rigour but move away from traditional education delivery models. Developing these courses will require up-front investments and the funding model will need to reflect this.

33 HESA Graduate Outcomes Survey (2024)

<sup>&</sup>lt;sup>32</sup> Wellcome (2020)

<sup>&</sup>lt;sup>34</sup> Apprenticeships academic year 2023/24, Department for Education (2024)

#### Creating a secure future for higher education

The Education Secretary recently noted the crucial role universities play in driving productivity growth and supporting communities across the UK. Now is the time to ensure our country's world-leading higher education sector is put on a secure financial footing for the long-term.

The OfS has warned that as many as 70% of England's universities could be running a budget deficit in 2025/26 without significant mitigating action, resulting in a sector-level deficit totalling £1.6bn.<sup>35</sup> This is due to declining applications from international students following changes to visa rules implemented by the previous government<sup>36</sup>, coupled with the fact the costs of delivering higher-quality education and impactful research are not being met by funding from tuition fees and government grants. Indeed, as noted above, universities currently subsidise UK research activity by £5.3bn per annum and the real-terms value of the undergraduate tuition fee in England has declined by over 25% since 2012/13 (to £6,700 in 2025/26).<sup>37</sup>

Universities across the country, including those in the Russell Group, are already working hard to implement efficiencies. This activity is designed to streamline operations, reduce costs, and enhance collaboration in order to maximise resources for high-quality education and research, delivering value for students and society.

Working alongside and with UUK's Transformation and Efficiency Taskforce, Russell Group universities commit to exploring opportunities for:

- Sharing specialist research facilities and reviewing their estates utilisation to optimise the use of their assets (or consider sale of assets where appropriate). For example, the University of Liverpool's Shared Research Facilities (LIV-SRF) initiative oversees the delivery of 25 core facilities comprising £70m of major equipment and 100 research technical professionals. Reciprocal agreements with Liverpool John Moores University and the Liverpool School of Tropical Medicine enable full access to equipment and technical expertise. LIV-SRF will be central to the delivery of a new Academic Health Sciences Campus, a transformational hub of healthcare and medical innovation. The new campus will support the NHS and industry partners to access the technology and analytical infrastructure needed to drive personalised approaches to prevention and treatment.
- Shared procurement. For example, our universities are working with the Energy Consortium to consider how they can more efficiently procure decarbonisation services and collectively support a growing supply chain. This will help reduce the high up-front costs to delivering their net zero strategies; helping future-proof institutions' efficiencies and supporting wider government objectives around net zero.
- Integrating AI into their education, research and administration to drive efficiency and value whilst upholding ethics and inclusivity. For example, the University of Warwick has developed an AI strategy to personalise education, accelerate research, optimise administration, and foster innovation across the institution. In parallel to establishing a new AI governance structure, the university has implemented an AI Centre of Excellence to accelerate development of standards and policies, serve as a focal point to coordinate AI efforts both internally and externally, and facilitate the sharing of best practice. Warwick's intention is to provide a comprehensive response and approach to AI at institutional level, focused on maximising the benefits for students and staff.

<sup>&</sup>lt;sup>35</sup> Financial sustainability of higher education providers in England: November 2024 update, Office for Students

<sup>36</sup> Home Office data shows 240 175 applications for student visas at LIK HEIs in 2024 O3, down 13% from 275 082

<sup>&</sup>lt;sup>36</sup> Home Office data shows 240,175 applications for student visas at UK HEIs in 2024 Q3, down 13% from 275,082 in 2023 Q3.

<sup>&</sup>lt;sup>37</sup> Calculations based on OBR October 2024 forecast, using CPI. This accounts for the uplift to tuition fees of £285 in 2025/26, as well as the £250 uplift in 2017/18.

Shared services, both across different departments within our universities and,
where appropriate, with other local FE and HE institutions. This includes shared
internal procurement and service clusters as well as regional collaboration. The University
of Manchester already shares a range of facilities and services with Manchester
Metropolitan University, and so too do UCL, Kings College London, LSE and Queen Mary
University of London through the University of London federation. Others are now exploring
new opportunities and assessing whether efficiencies can be realised.

In addition, our universities will continue to use benchmarking data where appropriate as a tool to assess the efficiency of their operating models compared to peers, including HEIs internationally. Whilst differences may reflect the context and mission of an institution, benchmarking data can help identify areas for change.

The recent announcement that tuition fees in England and Wales will rise with inflation for 2025/26 is a welcome sign that government is engaging with the financial difficulties facing universities and students. Now the sector needs a long-term funding and policy landscape that supports institutions to be financially sustainable. This should include tuition fee caps increasing with inflation and other measures that increase per student funding for teaching, including through the Strategic Priorities Grant. Ensuring a secure future for the higher education sector will be crucial to supporting the pipeline of skills and new discoveries required to drive innovation, improve the UK's public services, and boost economic growth.

## 4. Research-intensive universities as key partners in delivering Industrial Strategy

#### Strengthening university-business partnerships to drive growth

The government has set out a vision for a decade of national renewal, with a new Industrial Strategy at the heart of its growth mission. Partnership between universities, business, the public sector, and local government must be central to the design and delivery of the strategy. This will involve harnessing universities' full capabilities across skills, research and innovation, and as place-based anchors for growth and investment.

Research-intensive universities have a key role to play in providing the critical inputs and infrastructure to all growth-driving sectors, whether through skills, research and innovation, business partnerships, as civic institutions, or in attracting overseas investment. Only universities can bring together science, technology, design and social science approaches to tackle complex industrial challenges from all angles. By drawing on a broad spectrum of interdisciplinary expertise, research-intensive universities can consider not just what technological 'solutions' are needed, but how these can be applied effectively encompassing social, economic, regulatory and behavioural factors. For example:

- The Transition Pathway Initiative Centre (TPI Centre) based at LSE provides valuable
  information to investors on companies' preparedness in making the transition to a lowcarbon economy. Researchers at LSE devised a bespoke methodology for evaluating
  companies' response to climate risk, driving accountability for corporate commitments to
  net zero. TPI Ltd is supported by 153 investors globally with over \$80 trillion in assets.
- The University of York-led BioYorkshire cluster is helping drive innovation in fields such as sustainable crop production and engineering biology. Researchers have partnered with Yorkshire farmers and food businesses to help tackle food insecurity in the UK. The project is expected to create 4,000 new jobs and enable North Yorkshire to become one of the first regions in the UK to be carbon negative.
- Queen Mary University of London has filled critical gaps in international financial law exposed after the 2008 financial crash. Work on central banking and financial regulation

has been the basis for legal and regulatory changes which have helped the Bank of England, HMT, IMF and European Central Bank enhance international financial resilience.

Committing to a long-term strategy for industrial renewal will help to provide a solid base on which to build new university-business collaborations and strengthen ongoing relationships. For example, the Al Opportunities Action Plan emphasises the importance of university-business partnerships in ramping up AI adoption and boosting economic growth for the UK.<sup>38</sup> Russell Group universities already have notable partnerships with the Al industry, including with Microsoft Research, OpenAl, Google DeepMind, Google Health, Amazon, NVIDIA, Samsung, IBM and Cisco as well as with the NHS, police and other public sector organisations.

Universities are keen to do even more to improve how accessible they are to business, especially SMEs. This could include mapping SMEs in local/regional ecosystems, establishing clearer points of contact, tailored collaboration options and pathways for SMEs, and training for academics to develop competitive proposals that appeal to industry objectives.

To support universities to increase their capacity to engage with businesses and drive innovation and productivity, government should scale innovation funding schemes with a proven return on investment. The Higher Education Innovation Fund (HEIF) supports university-business collaborations, licensing, opportunities for student entrepreneurs and support for high-growth spinouts. HEIF is flexible and has been a welcome long-standing intervention, as such it is highly effective: every £1 invested in HEIF yields £14.8 in economic return at the sector-level. New evidence suggests large research-intensive universities deliver an even higher return on investment from their HEIF allocations, as much as 20:1 once spinout performance is accounted for.39

- The University of Sheffield has used HEIF funding to develop its Commercialisation Journey, allowing the university to be a company's first cash investor at pre-seed and preincorporation stage, crucial to making propositions investable for venture capital funds. Three of the University's recent spinout companies – Opteran, Rinri Therapeutics and Phlux – received a total of £920,000 of university investment and, in their first external investment rounds, raised a total of £6.8m. Their cumulative external investment in January 2025 was £35.6m and the three companies' total valuation was £67m. This has helped to create high-quality jobs based in Sheffield, which generate GVA for the local economy.
- Over the past five years, the Nexus innovation hub at the University of Leeds has built a community of more than 130 businesses in the West Yorkshire region, securing £34m in grant funding and attracting £117m in private investment to support regional economic growth. At the outset, HEIF funding helped to establish Nexus' feasibility, and now partfunds a team responsible for new collaborations, growing the community further and delivering entrepreneurial support programmes among other initiatives.

The total HEIF fund is currently worth £260m, with a maximum allocation of £5.7m per university. This cap restricts the scale of innovation activities many universities can undertake. **Increasing** the value of HEIF would enable universities to significantly step up their commercialisation and business engagement capacity, making a far larger contribution to growth across priority industrial sectors. For example, tripling HEIF could deliver around £11bn for the economy based on the latest evidence of impact from HEIF funding to date.<sup>40</sup> Scaling HEIF would require a proportionate uplift to Research England's budget to ensure a continued pipeline of discovery research through to innovation.

<sup>&</sup>lt;sup>38</sup> Al Opportunities Action Plan (2025)

<sup>&</sup>lt;sup>39</sup> Updated following publication of new evidence. 'A Quantitative Assessment of the Return on Investment of Research England's Higher Education Innovation Fund: A technical report for Research England', Tomas Coates Ulrichsen (2025)

<sup>&</sup>lt;sup>40</sup> Calculated based on a total HEIF budget of £780m, delivering £14.8 of impact for every £1 invested.

To maximise the impact of investments such as the R&D Missions Fund, government should ensure such schemes are designed with business needs in mind. For example, providing long-term predictability in funding, agile review processes, and ensuring match-funding requirements are not a barrier for smaller businesses. Barriers also need to be removed to drive take-up of schemes such as Knowledge Transfer Partnerships that already have a high success rate with SMEs.

The UK Research Partnership Investment Fund (UKRPIF) has enabled universities to enhance UK research infrastructure, reducing risks for business in creating joint facilities and increasing universities' ability to commercialise their research.<sup>41</sup> Further rounds of UKRPIF would help strengthen university-business partnerships, and considering opportunities to involve SMEs and better leverage philanthropic investment would further enhance its impact.

#### Increasing the number of high-growth spinouts and start-ups

The UK's research-intensive universities are already among the best in the world at commercialising their research, as recognised in the 2023 independent review of spinouts. We should be ambitious in developing this even further, consolidating progress universities have made in implementing the recommendations of the review. Even more important is to tackle the long-standing challenges which make it more difficult for new businesses to start and scale in the UK.

Building on adoption of the spinout review recommendations, research-intensive universities are exploring further improvements to their processes and policies to make them easier to navigate and more attractive to investors. This includes developing deal readiness toolkits to standardise deal terms for spinouts.<sup>42</sup>

Universities are also committed to incentivising institutional cultures needed to integrate commercialisation into an academic career path. This includes recognising alternative academic pathways within promotion criteria and offering entrepreneurship training for staff and students.

• The University of Cambridge's Postdocs to Innovators (p2i) network is an international collaboration of universities and major global companies that supports early career researchers at all stages of the entrepreneurial journey. Since 2017, p2i has successfully engaged over 860 postdocs, with many going on to spinout successful companies, transition into industry or remain at the university working on cutting-edge research.

A lack of investment at the early stage is a key limiting factor preventing an increase in university spinouts available for private investment. To try and address this, the majority of Russell Group members have set up their own proof of concept (POC) funds and many also have funds specifically to provide first investment once companies have been spun out. These funds are built from HEIF, UKRI Impact Acceleration Accounts (IAAs), and equity from successful spinouts but do not meet the level of opportunity. For example, one of our universities estimates that due to limited funds they can take forward only 40% of their viable spinouts.

To address these challenges, we urge government to create a new 'Spark Fund' to bridge the early-stage funding gap that is limiting the number of spinouts available for private investment. The new fund could leverage co-investment, spinning out more high-growth companies in priority industrial sectors. This could be coupled with a mapping exercise to join up existing funding mechanisms (across UKRI, Innovate UK and the British Business Bank - BBB) to offer a clear continuum of funding across a spinout's growth phases.

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<sup>&</sup>lt;sup>41</sup> A 2024 interim evaluation of UKRPIF found the scheme has enabled universities to commercialise 9.7 x more research outputs (e.g. patents) compared to the baseline. <u>Evaluation of the UK Research Partnership Investment Fund:</u> <u>Interim report</u> (2024)

<sup>42</sup> SETsquared IMPACT-IP programme

Many university research projects and spinouts attract interest from overseas capital and sometimes investments are blocked by the government, due to economic and national security risks. Often when this happens, no UK investor steps in, and the research or spinout does not get commercialised or scaled. However, the fact these spinouts or projects attract overseas investment signals significant potential value. The government could establish accelerated funding review pathways through national funders, such as the Defence Science and Technology Laboratory and the BBB, for cases where investment in university R&D has been blocked. This approach would genuinely strengthen the UK's economic resilience.

## Creating an inclusive Industrial Strategy for the whole UK

The UK suffers severe regional disparity: in productivity, living standards and opportunities for local communities. A central objective of the Industrial Strategy should be to unleash the full potential of UK towns, cities and regions, and research-intensive universities have a core role to play in acting as conveners in every region and nation of the UK.

Across the UK, research-intensive universities have developed long-standing relationships within their local political ecosystems. Mayoral Combined Authorities (MCAs) and city deals have created a strong framework for universities to collaborate with their local government and industry partners.

- Queen's University Belfast is helping to deliver a £230m programme of innovation through the Belfast Region City Deal. Three new innovation centres (the Advanced Manufacturing Innovation Centre, Momentum One Zero and iREACH Health) will deliver on industry and regional priorities and drive civic and economic development in Northern Ireland through the creation of 4,000 new jobs.
- Newcastle University and the University of Durham have a long-standing relationship with their local government and the new North East Combined Authority (NECA). Both sit on the NECA's business advisory board, are directly feeding into the local growth plan and are launching a collaborative university commercialisation and spinout fund with the MCA.

There is an emerging risk that places without the new mayoral strategic authority status could be disadvantaged due to lack of formal collaboration mechanisms and additional funding opportunities. Universities in areas with more complex or fragmented local government structures play a key role in supporting regional development.

- The University of Exeter in collaboration with the universities of Plymouth and Falmouth –
  has set up the South West Think Tank to create policy options for local government. The
  university has also run the Devon Housing Commission to address local housing
  challenges and provided support for the cultural and creative economy in Exeter city for the
  past five years by managing the development of the cultural strategy for the City Council.
- The University of Southampton is supporting regional economic growth in partnership with Hampshire County Council, its districts/boroughs and Southampton City Council. Ranging from establishing Southampton as an AI City of Excellence working with organisations across the private, local government and education sectors, to launching Clean Air South, a consortium of academics, regional policymakers and health leaders working together to improve air quality and population health in the Hampshire/Solent region.

Making innovation and skills central to local and regional development policy will be crucial to supporting high-potential clusters around the UK. As part of the plans, government should also consider opportunities to provide infrastructure funding for specialist facilities and scale-up space for hire. This would act to de-risk commercial investment in new facilities across the regions.

To maximise opportunities for innovation-led growth across the regions and nations, the government can play a key coordinating role. This should include:

- Ensuring universities can contribute meaningfully to local growth plans and wider regional economic strategies regardless of the devolved structures in their areas
- Supporting opportunities for universities to convene and lead collaborative placebased innovative projects within, and across, regions. This could aid the development of investable propositions for industry from within the UK and overseas.
- Sharing practice and capacity building across the regions and nations, building on the intention set out in the Devolution White Paper.<sup>43</sup>

The loss of European regional development funding (ERDF) led to the closure of over 100 university innovation, skills and business support programmes. To maximise the impact of place-based funding, it should reflect genuine regional strengths with a clear path to impact and strengthen the long-term international competitiveness of a region's R&I performance.

## 5. Building an NHS fit for the future

#### Turning research into cutting-edge health and social care innovation

Partnerships driven by research-intensive universities with the NHS, business and local authorities are helping create new and innovative treatments and technologies, build strong health and social care ecosystems in all parts of the UK and support the pipeline of skills needed to transform our national health and care services. Together we can boost standards in our health and social care services and build a more resilient economy with health and wellbeing at its core.

Medical expertise and research from research-intensive universities helped deliver breakthroughs like the Oxford-AstraZeneca Covid-19 vaccine, and other novel therapies, diagnostics and MedTech advances that saved thousands of lives during the pandemic. This success was built on decades of investment in discovery-led, globally excellent research, and robust partnerships between our universities, government, industry and the NHS.

The strength of research-intensive universities in life sciences represents a competitive advantage for the UK, with UK university research accounting for nearly 12% of global medical life science academic citations in 2023. Research-intensive universities are helping innovators create businesses to turn this research excellence into new drugs, treatments and medical technologies that are giving NHS clinicians better tools to treat patients, helping people live independent, healthy lives and supporting economic growth.

- University of Bristol spinout Ziylo developed a novel treatment for diabetes and saw one of the largest UK spinout exits after being acquired by Novo Nordisk for £623m.
- King's College London is lead partner in the London Institute for Healthcare Engineering (LIHE), a new initiative dedicated to bringing MedTech innovations to patients and the market. As the first MedTech venture builder in the UK, LIHE will help novel healthcare technologies navigate the complex path to clinical and commercial success by bringing together R&D expertise across academia, the NHS and the MedTech industry.

University expertise in social science disciplines is also crucial in supporting the delivery of effective social care: from demonstrating the need for a joined-up approach to the social care

<sup>&</sup>lt;sup>43</sup> We welcome the recognition in the devolution white paper of the need to "better support strategic leadership, peer-topeer support and sharing best practice on innovation". This should include capacity building for local government to understand and deliver funding and support for innovation-led growth.

system, with cuts to areas like housing and transport leading to more people becoming dependent on care, to new thinking on how to address the financial burden of the rising costs of social care. 44

As highlighted by Lord Darzi in his report on the state of the NHS, research and innovation can make the NHS more sustainable. 45 We should aspire to be the country of choice for clinical trials. open up digital health records, and build on pioneering work in genetics, Al-driven diagnostics, and advanced robotics to transform patient services with earlier diagnosis and better treatments. We also need to support NHS teams to embed research as a core part of their business and harness opportunities to pull innovative ideas into use through new approaches to public procurement. This could help secure new FDI from overseas businesses and funding bodies to attract and anchor key research partners in the UK. Setting an ambition for our NHS to become the world's leading health and life sciences research platform - working with universities to make research a core part of its function - would support investment through life science clusters and drive a productive and healthy nation.

#### Building a resilient NHS and social care workforce

Working with partners across the UK, Russell Group universities are helping build the NHS workforce to protect the health of individuals, families and communities. Bringing together research and training expertise, our universities can support the NHS to capitalise on technological innovation and deliver better outcomes for patients and better value for taxpayers' money.

Universities are vital partners in supporting local and national NHS recruitment, retention, and research capacity. Russell Group universities train three out of four doctors and dentists, more than 17,000 nurses and midwives per year<sup>46</sup>, and employ more than 4,200 (FTE) clinical academics.<sup>47</sup> They are also central to efforts that will be needed to transform health and social care, using insights from health, economic and social data to create integrated solutions to major challenges such as mental health, obesity and the ageing population.

Our medical schools are delivering innovative programmes informed by cutting-edge research and in state-of-the-art facilities. To address regional variation in the NHS workforce, some Russell Group universities are partnering with others to establish medical schools in under-doctored areas.

The Lincoln Medical School, a partnership between the University of Nottingham and the University of Lincoln, is addressing shortages of doctors by encouraging graduates to complete their junior doctor training locally and apply for jobs in the region. Lincolnshire's hospitals serve one of England's largest and most dispersed rural populations and the medical school will benefit generations to come.

Universities will continue to work collectively and find solutions, including partnerships, to expanding training capacity. Alongside this, a more strategic approach from government is required to ensure training expansion is properly planned and accounts for costs, clinical placement capacity and regional demand for healthcare professionals. This should include tripartite partnerships between integrated care boards, universities and hospital trusts to foster regional coordination and collaborative working. Long-term certainty on funding to support training would enable universities to consider options for expanding provision and help meet government ambitions for the NHS workforce. At the SR government should set funding milestones necessary for expanding training capacity through the 10-year Health Plan.

<sup>&</sup>lt;sup>44</sup> 'Beyond the ballot: social science insights on eight key policy challenges', Academy of Social Sciences (2024)

<sup>&</sup>lt;sup>45</sup> Independent Investigation of the National Health Service in England (September 2024)

<sup>&</sup>lt;sup>46</sup> Qualifiers 2022-23, HESA Student data, (August 2024)

<sup>&</sup>lt;sup>47</sup> This figure is for FTE staff. Data from Clinical Academic survey, Medical Schools Council (2024)

To ensure the Plan can be implemented effectively, we recommend creating a new Ministerial Taskforce on NHS workforce planning. This could be chaired by a minister with joint accountability across DfE and DHSC to ensure coordination between the departments. Information from NHSE's newly formed Clinical Expansion and Reform Stakeholder Advisory Group could feed into this taskforce to ensure all stakeholders, including training providers, are informing progress and identifying barriers and solutions to workforce growth. This taskforce could report to the Mission Board responsible for overseeing Labour's ambition to build an NHS fit for the future.

In addition, there is a shortage in clinical academics who play a vital role in leading the UK's health research and training the future healthcare workforce. Government – alongside regulatory bodies, research funders, and the NHS – should look to better promote portfolio careers between practice, academia and research to existing NHS staff and healthcare students. More could also be done by universities to increase the value and attractiveness of the educator role and set out clear career pathways that incentivise retention of talent.

# 6. Strong foundations – championing UK prosperity whilst safeguarding national security

#### Maximising universities' global activities to drive UK economic growth

With an increased focus from government on ensuring economic growth sits at the heart of foreign policy, drawing on university internationalisation will be crucial to boosting UK FDI. Leveraging the full potential of universities' global activities (through education exports, R&D partnerships and access to global talent) will expand new markets and drive growth in priority industrial sectors.

Universities deliver enormous advantages for the UK from collaboration across borders, attracting talent and FDI,<sup>48</sup> and fostering the types of economic activity international investors value most.<sup>49</sup> This helps build dynamic regional innovation clusters in high-growth sectors such as digital technology and cybersecurity, providing a crucial source of competitive advantage for the UK.

 The Cyber Innovation hub led by Cardiff University, combines industry, academic and government cybersecurity partners. The hub has attracted investment from Airbus and CGI, among others, and aims to increase the number of cybersecurity companies anchored in Wales by 50% by 2030.

To maximise universities' role in helping attract FDI, our universities are keen to work with government to map their global reach and networks. This would enable government to integrate universities' contributions into the wider UK offer to international investors (including within the GREAT campaign). We would also welcome consideration of how the Office for Investment (OfI), Science and Innovation Network, UKRI and DBT work together internationally to ensure efforts to drive UK prosperity through overseas investment are joined up. For example, the OfI should work with UKRI to ensure existing matched-funding schemes can better leverage business and philanthropic investment into universities.

The current review of the International Education Strategy provides an opportunity to consider how the UK might better maximise impact from the full range of universities' global activity. A wider global strategy for universities could encompass research and innovation partnerships and opportunities for philanthropic and business investment, as well as international students

<sup>&</sup>lt;sup>48</sup> The independent Harrington Review of Foreign Direct Investment recognised universities as a key UK R&D strength. Harrington Review of Foreign Direct Investment, DBT and HM Treasury (2023)

<sup>&</sup>lt;sup>49</sup> When asked in the EY Attractiveness Survey, investors' top three recommendations for the UK to maintain its competitive position were supporting high-tech industries and innovation (such as cleantech and healthcare), supporting SMEs (of which university spinouts and start-ups are often among the most innovative) and increased R&D funding. <a href="UK"><u>UK</u></a> attractiveness survey 2024, EY (2024)

and transnational education arrangements. Leveraging the full potential of universities' global prestige and partnerships would enhance the UK's ability to pursue deeper relationships with existing partners and explore new opportunities for export-led growth. It could drive opportunities for further FDI including from philanthropic sources, and boost universities' contribution to soft power and their role in trade deals. There will be an important role for the UK's wider soft power assets, such as the British Council, in helping to deliver this.

Higher education is already a major export activity in its own right: the DfE estimates that higher education generates nearly £22bn in export income, more than medicinal and pharma exports and nearly five times clothing export revenue.<sup>50</sup> International students bring cultural and social as well as economic benefits to all the UK nations and regions, and international demand for higher education should be regarded as a genuine UK success story:

- Nearly 40% of world leaders since 2017 have been educated at a UK university, conferring soft power benefits for generations to come.<sup>51</sup>
- A single cohort of international students generates £37.4bn net economic impact for the UK, with the benefits spread across the UK's towns and cities (with an average net economic contribution of £58m per parliamentary constituency).<sup>52</sup>
- Skilled international graduates will be an integral part of the future workforce, bolstering the UK's R&D capability and staffing innovative British businesses that will be central to realising the ambitions of government's new Industrial Strategy.<sup>53</sup>
- Overseas tuition fees enable universities to grow places for domestic undergraduates: despite growing funding deficits, overseas fees have enabled our universities to increase UK undergraduate numbers by 15% since 2013/14.<sup>54</sup>

Russell Group universities have rigorous processes in place to ensure overseas recruitment is sustainable and not subject to abuse. For example, the University of Bristol has been working with Bristol City Council to implement plans for new purpose-built student accommodation to increase supply in parts of the city where student housing investment will help regeneration. This will provide more quality and affordable housing and relieve pressure on other parts of the housing market. All Russell Group universities who use agents are signed up to the Agent Quality Framework and have cut ties with agents found to engage in bad practices. Better data sharing between UKVI and universities would help identify agent abuse and drive progress in tackling it effectively.

We welcome government's recent positive messaging in support of international students. However, changes to immigration rules introduced by the previous government, alongside other global factors, have driven international student numbers down significantly. In addition, increasing UK visa costs for international talent may also discourage skilled researchers from coming to the UK. In a Russell Group survey, around two thirds of members cited visa costs as a primary barrier to attracting talent.<sup>55</sup> There remains huge potential to grow our share of the international student market and the UK should be ambitious in building on its previous success. It is vital that the government continues to offer a welcoming environment for international students and staff with stable, affordable and internationally competitive visa routes. The current Graduate Route offer is vital to the UK's position as a destination of choice for international students

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<sup>&</sup>lt;sup>50</sup> Figures refer to 2021, which is the latest available data for HE exports: <u>UK revenue from education related exports and transnational education activity</u>, Department for Education (2024)

<sup>&</sup>lt;sup>51</sup> Higher Education Policy Institute (HEPI), Soft Power Index (2024)

<sup>&</sup>lt;sup>52</sup> The benefits and costs of international higher education students to the UK economy, London Economics (2023)

<sup>&</sup>lt;sup>53</sup> Outlined in a letter from UK business leaders to the (then) Prime Minister (2024)

<sup>&</sup>lt;sup>54</sup> Based on Russell Group analysis of trends in new entrants on first degrees from 2013/14 to 2022/23, HESA student data (2024).

<sup>&</sup>lt;sup>55</sup> Research Culture Survey, Russell Group (2022)

**and must be retained as a priority.** This will help to ensure the UK remains a leading destination for international talent, benefiting domestic students, UK R&D and businesses.

## Strengthening partnerships in Europe and beyond

R&D and university partnerships will be central to a refreshed UK-EU trade and investment relationship. Access to EU research and innovation programmes brings huge advantages for the UK: boosting jobs and opportunity, building UK research capacity and capabilities and keeping us at the forefront of key technological advances such as AI and clean energy.

Historically, the UK has been highly successful in EU science programmes: securing €7.8bn (11.5%) of funding in the previous framework programme, Horizon 2020 – second only to Germany.<sup>56</sup> Examples of UK-led research under this programme include AIDS vaccines, aerospace, graphene, cancer care, social policy, environmental and economic modelling.

Horizon's benefits include access to European Research Council (ERC) grants, whose prestige helps UK universities attract the most talented researchers. It offers ready-made routes for universities, research institutes and businesses to work together on shared challenges and supports innovative technologies and start-ups. It provides scope to work with partners both within and beyond Europe: Canada, New Zealand and South Korea have signed up, for example.

Following the hiatus after Brexit, UK universities are making strong progress in individual applications to Horizon Europe and are rebuilding collaborative links between UK and EU researchers and innovators. This follows a steep decline in Pillar II applications as a result of the uncertainty about the UK's status as a partner:

- Researchers at UK institutions won 29 ERC Proof of Concept Grants in Work Programme 2024, more than any other country in Horizon Europe (except the Netherlands which also won 29 grants).<sup>57</sup>
- UK institutions are hosting 18 projects (32%) which won ERC Synergy Grants, more than any other country except Germany.<sup>58</sup>
- Researchers at UK institutions won 50 ERC Starting Grants worth around €75m, the thirdlargest number and 56% more than last year.<sup>59</sup>

These grants are supporting the development of genuinely transformative technologies in high-growth industrial strategy sectors such as cleantech, life sciences, AI and quantum.

• Dr Yunjie Yang at the University of Edinburgh won a €1.5m ERC Starting Grant this year. His SELECT project aims to revolutionise soft robotics, developing advanced electronic skins mimicking living organisms' sensory abilities. This would allow soft robots made from flexible materials to perceive themselves and their environment with adaptability and precision. This could transform their use in delicate surgical procedures, personalised care for patients, deep-sea exploration, disaster response and more. Dr Yang is now working with Edinburgh Innovations to commercialise this technology.

In order to maximise the value of the programme for the UK, Russell Group universities are raising awareness of Horizon opportunities with their academics, delivering targeted programmes to

<sup>&</sup>lt;sup>56</sup> EU Funding and Tenders Portal, European Commission (2024)

<sup>&</sup>lt;sup>57</sup> 2000<sup>th</sup> ERC Proof of Concept Grant awarded, European Research Council (2024); <u>134 researchers supported to turn</u> their science into practice, European Research Council (2025)

<sup>&</sup>lt;sup>58</sup> ERC Synergy Grants for 57 teams tackling major scientific challenges', European Research Council (2024)

<sup>&</sup>lt;sup>59</sup> '<u>European Research Council awards €780m in grants to emerging science talent in Europe</u>', European Research Council (2024)

upskill potential applicants, helping applicants find partners to collaborate with and offering advice. An early declaration of intent to associate to Framework Programme 10 (FP10 – the successor programme to Horizon Europe) will help secure and enhance relationships with EU partners. This should include retaining fiscal headroom to associate to FP10 from 2028. Full participation, with as few areas excluded as possible, would also complement UK-EU efforts to co-ordinate across military, economic, climate, health, cyber, and energy security.

#### Taking shared responsibility for national security

We recognise the increasing importance of protecting university research and innovation from hostile actors and securing the UK's economic advantage in key technology areas. Research security is a shared national responsibility, and our universities work closely with government departments and the security services to identify and tackle hostile activity. Boosting capability to address threats to our research base will be crucial in protecting national security.

International collaboration and the recruitment of talented international researchers maximises the local and global impact of our universities' research. Our partnerships have helped Russell Group universities build dynamic regional R&D clusters, advance technologies supporting sustainable development goals, underpin next-generation manufacturing, and secure more than £1bn every year in research grants and contracts from international organisations. <sup>60</sup> All of which is helping to drive growth and wealth creation across the UK.

The strength of our universities' research in strategically important fields makes the UK a target for hostile international actors who seek to access and misappropriate university research for their own gain. Threats range from cyber-attacks aimed at stealing valuable IP to organisations obscuring links with overseas militaries when proposing joint research collaborations. Research security aims to protect universities from these threats. Effective measures also enable continued, secure international collaboration, helping safeguard the benefits these partnerships bring to UK research and economic growth.

Our universities have responded to emerging threats by bolstering internal defences with enhanced due diligence, targeted training programmes for key staff and robust policies aligned with government and sector guidance. As an example of wider institutional policy changes our universities have made, one has so far reviewed over 3,000 overseas collaborations for potential risks since the university's central research security team introduced a new mandatory "project notification form" for researchers to complete before entering into international partnerships. Relevant cases are escalated to senior leadership for further scrutiny and due diligence, enabling and supporting safe research.

Universities recognise more can be done to build on recent progress to help institutions respond quickly to emerging threats. A dedicated research security fund (RSF) would enable universities to build additional capacity and capability to protect national security and secure valuable overseas partnerships. A new RSF would enable universities to scale existing activity by using government co-investment to enhance due diligence capabilities, drive culture change within the academic community, and advance robust cyber, physical, and data security solutions. An equivalent fund is operating successfully in Canada, and a UK RSF would need to provide £135m over five years to secure similar benefits.

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<sup>60</sup> HESA finance data, 2022/23 (2024)