Submission to the UK Government Spending Review

Creating a Strong Enabling Environment for Research

Summary

KEY ASKS

- **Increase R&D intensity - including by following through on plans to invest £22bn on R&D in 2026/27 and setting a longer-term ambition to become the most R&D intensive economy in the G7**
- **Work with the sector to ensure that the funding environment for UK universities supports their financial sustainability.**
- **Support the new and ongoing costs of world class infrastructure and international collaboration.**
- **Invest in research and innovation as the engine of continuous improvement throughout the entire NHS.**
- **Champion the UK's global role in science to foster equitable partnerships, drive global health outcomes, and stimulate growth.**

The importance of investing in R&D

The Government's commitment at the Autumn Budget to protect overall public R&D investment, with £20.4 billion allocated in 2025-26, is hugely welcome and rightly recognises that investing in R&D is vital to driving economic growth. The Chancellor's recent speech made clear that she sees the potential for science in delivering growth and was a welcome signal of intent.

As Wellcome set out in its Manifesto for Science and its 2024 Budget Submission, the Government should build its strategy for growth on the foundations of the UK's world-leading R&D sector. By increasing its investment in research and innovation, the Government can drive economic growth in towns, cities and regions across the nation, while also driving progress towards breakthroughs that can transform the future of human health. The National Centre for Universities and Businesses (NCUB) estimates that in the UK each £1 of public R&D stimulates between £0.60 to £1.10 of private R&D investment in the short term, and between £3.09 to £4.02 in the long term.[1] Evidence from the Campaign for Science and Engineering (CaSE) shows that people across the

[1] National Centre for Universities and Businesses (NCUB), *Unlocking growth: The impact of public R&D spending on private sector investment in the UK*, (2024) 6251_NCUB_UnlockingGrowth_Report

UK believe R&D is vital to tackling climate change, the quality of the NHS and the cost of living – and they want to see politicians pay more attention to it.[2] Investing in an NHS powered by research and innovation will develop the technologies that can improve health and care services, speed up treatment, reduce preventable illness, and cut health inequalities. Failing to seize the opportunities that investing in R&D offers risks private investment leaving the UK in search of more ambitious, stable, and generous environments, with long term, deleterious effects on the health and wealth of the nation.

To put the UK on the path to growth, the Government must demonstrate that it recognises the UK's strategic advantage in R&D to lead to a healthier future for everyone.

About the Wellcome Trust

Wellcome is a global research foundation supporting science to solve the urgent health challenges facing everyone. As the largest non-governmental funder of UK research, we have **committed to spending £16 billion in 2022-32 to achieve our mission globally** and our **total active grant funding for UK organisations is currently £3.8 billion**. Our long-standing commitment to science and innovation has enabled new and life-changing discoveries. Our funding includes supporting discovery research into life, health and wellbeing, and taking on developing solutions to three worldwide health challenges: mental health, infectious disease and climate and health.

By maximising the benefits of science for people's health through funding excellent research across science, social science and humanities, we're contributing to a richer research ecosystem that puts innovation and discovery at the heart of the UK's global reputation.

Wellcome supports more researchers in the UK than anywhere else. **We are committed to partnering with the UK Government to realise our shared ambitions for UK research and its powerful impact on the world.**

[2] Campaign for Science and Engineering (CaSE), *CaSE Public Attitudes to R&D 2022-23,* (2023) CaSE Public Attitudes to R&D 2022-23,

1. Increase R&D intensity - including by following through on plans to invest £22bn on R&D in 2026/27 and setting a longer-term ambition to become the most R&D intensive economy in the G7

The UK is one of the best places to do research, ranking first in the world for the quality of academic publications, as measured by the field-weighted citation impact (FWCI).[3] As a result, Wellcome invested £826 million in the UK in 2023-24.[4]

But while public and private R&D spending has increased in recent years, the UK's overall R&D intensity - the proportion of GDP invested from public and private sources - sits in the middle of the pack compared with the rest of the G7 (USA c 3.5%, Japan 3.27%, Germany 3.13% and the UK 2.9–3%).[5]

The UK should build on its world-leading science base by increasing public investment for R&D, fostering larger still private investment, and putting the UK on a path to being the most R&D-intensive major economy in the world. Wellcome firmly believes that this will be a major vehicle for achieving the Government's growth mission.

For the UK to become the most R&D intensive nation in the G7, the Government should:

- **Set a long-term target to make the UK the most research-intensive nation in the G7:** The first step to achieving this target would be to recommit to the previous Government's plans to raise total R&D spend to £22bn in 2026/27. Anything less than this would represent a slow-down and send the wrong message to investors. Over the course of this Spending Review, the Government should seek to move up from fourth to third in the ranking of G7 nations by R&D intensity and aim to increase R&D spending to 3.25% of GDP by the end of 2029/30.
- **Protect funding for discovery research:** the Government committed £20.4bn for R&D in 2025-26 which is positive news for the sector. The Government and UKRI must now ensure that as R&D spending grows, the proportion invested in discovery research is maintained. Discovery research is the bedrock of innovation, feeding the pipeline of progress for groundbreaking discoveries. The science minister Lord Vallance hailed discovery research as "the goose that lays the golden egg."[6] The

[3] Department for Business Energy and Industrial Strategy (BEIS), *International comparison of the UK research base,* (2022), International comparison of the UK research base, 2022: accompanying note
[4] Wellcome Trust, *Wellcome Annual Report,* (2025) ,https://wellcome.org/reports/wellcome-annual-report
[5] OECD, *Gross Domestic Spending on R&D*, Gross domestic spending on R&D | OECD
[6] UK Research and Innovation (UKRI), *Discovery science projects pave the way for future innovations*, (2024) Discovery science projects pave the way for future innovations – UKRI

game-changing capabilities, intellectual property and, potentially, new research disciplines and industries that emerge from discovery research will help to improve the health and wealth of the nation.

- **Commit to 10-year funding cycles for R&D**: We welcome the Government's commitment to introducing 10-year funding cycles for key R&D activities. Current 3–5-year funding cycles hinder collaborative, strategic relationships and thinking. Start-stop, cliff-edge funding has cyclical downward impacts on the ability to plan, retain talent and secure investment. 10-year funding would reduce bureaucracy and enable such collaborative, strategic thinking. CaSE have included a helpful set of parameters for selecting recipients and implementing long-term funding cycles in their spending review bid, which Wellcome was a part of developing and strongly supports. These include:
  - Considering the remit and level at which investment is set.
  - Ensuring enough flexibility to change direction in responses to developments but enough stability to pursue long term priorities.
  - Including an exit point to ensure projects not generating benefits are stopped.
  - Avoiding adding significant bureaucracy.
  - Considering the additional value from a long-term funding settlement, as well as which areas or sectors stand to benefit the most.
  - Considering the realistic timeframe for returns as the length of the R&D cycle is different in different sectors.
  - Developing a rational and transparent process for deciding which establishments / institutions / activities warrant long term investment over others.
  - Considering the trade-offs between distributing funding across the UK or targeting areas that already see significant investment.
  - Learning from existing examples and mapping the existing landscape of R&D institutions across the UK, including how an R&D institution is defined.

- The Government should also work with UKRI to ensure that it has the flexibility it needs to manage its own spending pragmatically over the SR period, particularly to accommodate longer-term commitments that would otherwise reduce UKRI's ability to adapt to changing demands in other spending from year to year.

2. Work with the sector to ensure that the funding environment for UK universities supports their financial sustainability.

To mitigate high inflation, stagnation in domestic tuition fees, and falling levels of full economic cost (FEC) recovery, UK Higher Education Institutions (HEIs) have become increasingly reliant on funding from increasingly volatile income streams, such as international student fees. According to the Office for Students, up to 72% of providers are facing an income deficit in 2025-26.[7] HEIs are a vital catalyst and sustainer of regional growth, providing jobs and research that support the Government's mission of economic growth across the entire nation. The Government must work with HEIs to create a more sustainable funding environment.

- **Develop a strategy, alongside universities and research funders, to ensure that 80% FEC of research funded by research councils are met:** Research in universities is funded, in part, by external funders such as government and charities, and partly by universities drawing on income from other sources. Historically, UKRI has aimed to cover 80% of the full economic cost of research, but Transparent Approach Costing (TRAC) data suggests this is currently at 69%.[8] Ensuring that 80% of the FEC of research is met will ensure that HEIs are not forced to cut back on R&D to balance the books.
- **Review the balance of the dual support system and increase Quality Related (QR) funding to reverse recent real-terms decline:** QR funding is a competitively allocated funding source that allows universities to engage in long term strategic planning for research and respond quickly to emerging opportunities. There has been a 16% drop in real-terms QR funding from 2010/11-2024/25 compared with an increase in Research Council grant funding over the same period, with more severe declines in the value of QR-equivalent funding being seen in the devolved administrations.[9] This reduces the ability of universities to maintain agility, innovation, and long-term planning and is contributing to financial precarity as a result.
- **Commit to improving the Charity Research Support Fund (CRSF), a component of QR funding, to ensure that 80% FEC of charity research are met.**

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[7] Office for Students, *Financial sustainability of higher education providers in England: November 2024 update,* (2024) https://www.officeforstudents.org.uk/media/s32lw2vq/financial-sustainability-of-higher-education-providers-in-england-november-2024-update.pdf

[8] Office for Students, *Annual Trac 2021-22: Sector Summary and Analysis by TRAC Peer Group*, (2023) Annual TRAC 2021-22: Sector summary and analysis by TRAC peer group (officeforstudents.org.uk), p19

[9] Russell Group, *The impact of Quality-related research (QR) funding,* (2024): qr_briefing_2024_final.pdf

£16 billion was invested in UK medical research by AMRC charities over the last 10 years.[10] The CRSF, set up two decades ago by the previous Labour Government to support charity funded research, has been allowed to stagnate since then and has not kept pace with increases in charitable spending on research. The declining CRSF threatens the sustainability and viability of charity-university research. Wellcome supports the Association of Medical Research Charities' (AMRC) ask that Government ensures the CRSF keeps pace with increasing charitable funding. Without the Government's long-term commitment to the CRSF, charity funding for life saving research will not go as far, will be less productive, and will continue to contribute to the financial precarity of universities. **Wellcome is keen to work with the Government to find innovative solutions to this problem, recognizing that our role as a significant funder provides potential to drive change.**

3. Support the new and ongoing costs of world class infrastructure

For the UK to be an attractive place for scientific investment and talent, excellent supporting infrastructure (both physical, digital and other) must exist. Wellcome has a strong record of partnering with the Government to invest in the infrastructure that leads to the big breakthroughs that expand knowledge and create opportunities for economic growth. Several of our major investments are in partnership with Government – including the Francis Crick Institute and Diamond Light Source. Wellcome's investment in UK infrastructure in 2024 included £36 million in the European Bioinformatics Institute, £16 million towards the UK Biobank's core award, and £130 million in the Wellcome-Sanger Institute[11] – which was the biggest contributor to the Human Genome Project - the first sequencing of the human genome. [12] Wellcome encourages the Government to continue in this spirit of collaboration by:

- **Committing to continue supporting the ongoing costs of critical research infrastructure,** such as partnerships between Wellcome, the Government, and others, including: Diamond Light Source, the Francis Crick Institute, population health research platforms (eg UK Biobank, Our Future Health) and research data platforms (eg EMBL-EBI), which enable fundamental research that leads to innovation, productivity and growth.

CASE STUDY - Diamond Light Source: Wellcome funds around 14%, or c.£12 million in 2024, of Diamond Light Source – the UK's national synchrotron. Diamond Light

[10] Association of Medical Research Charities, Bolstering Charity-University Research Partnerships, July 2024
[11] Wellcome Trust, *Wellcome Annual Report,* (2025) ,https://wellcome.org/reports/wellcome-annual-report
[12] Wellcome Sanger Institute, *The Finished Human Genome – Welcome to the Genomic Age,* (2003), The Finished Human Genome – Wellcome To The Genomic Age

Source works like a giant microscope, accelerating electrons to near light speeds, to produce a light 10 billion times brighter than the sun, that scientists can use to study anything from fossils, to jet engines, to viruses, and vaccines. Over recent years, flat-cash budgets, coupled with inflationary rises, have caused growing budgetary pressure on Diamond, currently exacerbated by the lack of clarity over future settlements. This uncertainty will lead to operational constraints, reducing researchers access, and delaying critical infrastructure updates. A National Audit Office (NAO) report found that more than 14,000 scientists have used the facility since it began operations, researchers have published over 10,000 articles in peer-reviewed journals, and patents citing Diamond are collectively valued at over £10 billion.[13] Failing to secure adequate funding for Diamond's day-to-day operations and for its essential capital projects will erode the UK's competitive edge in vital areas like structural biology and drug discovery.

- **Leveraging significant Wellcome investment (£3.7bn) in the growing Wellcome Genome Campus at Hinxton by following through on the Chancellor's recent pledge to invest in transport, homes, water and other vital infrastructure in the Oxford-Cambridge area.** This could help to create a world leading hub for the translation and application of genomics and biodata to clinical and industrial challenges, and the commercialisation and development of new technologies. It is welcome that the government has recognised the potential impact that the Cambridgeshire life-sciences sector can have in driving economic growth, and its support for the Oxford-Cambridge Corridor will help to provide the infrastructure required to ensure this potential is fulfilled.

4. Invest in research and innovation as the engine of continuous improvement throughout the entire NHS

More than ever before, research must be at the heart of the NHS to ensure it can constantly improve and adapt. The Government's plans for the future of the NHS set out three fundamental shifts, from hospital to community, from analogue to digital, and from sickness to prevention, but there is a missing fourth shift, from research to reality – as set out in the recent report from Wellcome, Nesta Group and RAND Europe.[14] This means fully capitalising on the strategic advantage the UK has in the breadth of its health data to realise the potential economic and health benefits, reducing the decline in clinical researchers to bridge the gap between research and clinical practice, and boosting both commercial and non-commercial clinical trials to build public trust in innovations. Prioritising research in our healthcare system will help build an NHS which

[13] National Audit Office (NAO), *Lessons Learned: Delivering value from government investment in major projects,* (2024).
[14] Wellcome Trust, Nesta, BIT, RAND Europe, *From research to reality: A vision for a research and innovation-powered NHS*, (2025), From research to reality | Reports | Wellcome

elevates economic prosperity, health outcomes and meaningfully improves people's lives. To achieve this, the Government should:

- **Provide the critical investment needed to establish a new national health data service, as recommended by the Sudlow Review, with a ring-fenced budget and clear leadership and accountability:** The UK has unparalleled health-related data with huge potential to transform population health. The NHS alone has excellent data; however, it consists of many organisations (over 1,200 NHS organisations alone) with multiple constituent parts that are not designed to work together.[15] The Government should use ideas from sector experts, such as those identified in the National Data library white paper competition to develop a trustworthy, secure solution. A national data service's main purpose would be to oversee a service to support streamlined, secure research and analysis of health data by approved analysts – specifically linkage of NHS health data to health-relevant data from other settings.[16] This resource is crucial if we are to leverage the potential of the NHS to drive growth of the economy and the health of the nation.
- **Create a more research-active healthcare workforce through incentivising professionals to embed research in their day-to-day roles, and reducing the decline in clinical researchers by developing a clear career framework and incentivising careers in clinical research.** Lord Darzi's review of the NHS states that clinical academics, "are an essential resource in bridging the gap between research and clinical practice so that research focuses on the areas of greatest need and patients in the clinic benefit from breakthroughs faster."[17] The Government should act on the recommendations of the Medical Research Council (MRC) report, *Clinical researchers in the United Kingdom: Reversing the decline to improve population health and promote economic growth*. This could include embedding a common national training framework, creating improved financial incentives for dual NHS-University funded/based posts, ensuring flexibility in NHS/University relative salary contributions ,which could evolve (or be proactively managed) as a career evolves (European Academic Medical Center model), and jointly funding positions where part of the salary is met by Universities, the NHS and industry.

[16] Professor Cathie Sudlow OBE, *Uniting the UK's Health Data: A Huge Opportunity for Society,* (2024) Executive-Summary-Uniting-the-UKs-Health-Data-1.pdf
[17] Lord Ara Darzi, *Independent investigation of the NHS in England,* (2024) Independent investigation of the NHS in England - GOV.UK

5. Champion the UK's global role in science to foster equitable partnerships, drive global health outcomes, and stimulate growth.

The UK's R&D sector is world-leading and has a widely respected international reputation. The UK ranks first in Europe for tech unicorns[18] and is home to four of the world's top ten universities.[19] When others are turning inwards, this Government has an opportunity to reshape its global role by putting science and R&D at the centre of its foreign policy and soft power strategy. Strengthening the UK's status as a world leader in scientific research will not only stimulate growth and bolster the UK's global influence, but it will also play a pivotal role in building and sustaining equitable global partnerships.

The UK's reputation as an attractive research partner provides a unique opportunity to leverage international research collaboration as a powerful diplomatic tool. This approach is crucial for fostering equitable partnerships, particularly in engaging Lower Middle Income Countries (LMIC) as partners in scientific endeavours. There is an opportunity to use established strengths in research and nascent/emerging strengths, in technologies like AI and life sciences, to enhance diplomatic relationships around the world. This can be achieved both by funding R&D abroad, encouraging international collaboration and pragmatic engagement, and by trialling innovative regulatory approaches that are both effective and proportionate, giving the UK strategic advantage in the development and implementation of new technologies.

Wellcome encourages the Government to put science at the heart of its foreign policy, fostering modern development partnerships, driving equitable global health outcomes, and supporting inclusive development. We recommend the Government do this by:

- **Returning ODA spending to 0.7% of GNI and prioritising R&D spending within this:** R&D currently only accounts for a small percentage of ODA spending, despite it being amongst the most transformative investments that the Government can make. By returning to spending 0.7% of GNI on ODA and prioritising R&D within that spend, the Government can help to drive equitable health outcomes by building capacity in low and middle income countries, generating wealth and jobs, tackling urgent global health challenges, and creating a healthier future for everyone – using the UK's strategic advantage in research to foster diplomatic relations and advance research globally.

[18] GREAT, *Grow your tech business in the UK,* Grow Your Tech Business in the UK
[19] Times Higher Education, *World University Rankings 2024*, (2024) World University Rankings 2024 | Times Higher Education (THE)

- **Earmark funding for the UK's association to EU Framework Programme 10 in 2027.** The EU is an innovation powerhouse – spending over €380 billion on R&D in 2023.[20] The Government should commit to assessing the benefits of association as the Programme is designed in the coming years and allocate funding from 2027 in anticipation of joining.

- **Reduce upfront costs associated with researchers coming to the UK, starting by reversing the increases to immigration costs (including upfront costs).** The House of Lords Science and Technology Committee referred to the UK's current visa policy as an "act of national self-harm."[21] Wellcome allows researchers funding their salaries from their grants to expense the costs of visas and the Immigration Health Surcharge (IHS) to ensure we can attract applications from a diverse range of talent.[22] A recent article from Cancer UK shows increases in the costs of the Skilled Worker Visa (22%), a 5 year Global Talent Visa (58%) and the IHS (66%).[23] Analysis by the Royal Society has shown that from 2021 to 2024, total upfront immigration costs in the UK increased by up to 58% depending on visa type.[24] Total upfront costs are higher in the UK than all other countries in the analysis. When excluding the UK from the international average, UK upfront costs are up to 17 times higher. The changes have further reduced the attractiveness of the UK as a destination for international applicants bearing the burden of these costs.

- **Continue to fund and champion critical global health initiatives such as Gavi, the Global Fund to Fight AIDs, TB and Malaria, and the Global Financing Facility, as well as research-based initiatives such as CARB-X and CEPI**, while also supporting the shifts needed to ensure progress towards a more effective, efficient and equitable global health ecosystem, as set out in the Lusaka Agenda.[25] In line with wider commitments to aid and development effectiveness, this should include making necessary changes in the UK's own behavior, risk assessment, funding conditions, and accountability requirements to create an enabling environment for alignment behind country-led trajectories toward universal health coverage, underpinned by resilient health systems and domestically financed health services and public health functions. For example, this should include:

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[20] Department for Science Innovation and Technology, *UK redoubles Horizon push as Kyle forges deeper R&I links with EU,* (2025), UK redoubles Horizon push as Kyle forges deeper R&I links with EU - GOV.UK

[21] House of Lords Science and Technology Committee, *Stem Visa policy jeopardises economic growth and amounts to 'act of national self-harm' says Lords Committee*, (2025) Stem Visa policy jeopardises economic growth and amounts to 'act of national self-harm' says Lords Committee - UK Parliament

[22] Wellcome Trust: Costs for Grant Holders - Grant Funding | Wellcome

[23] Cancer Research UK, *The UK immigration system is holding us back in the fight to beat cancer*, (2024) https://news.cancerresearchuk.org/2024/07/25/uk-immigration-system-visa-fees-international-cancer-researchers/

[24] The Royal Society, *Summary of visa costs analysis,* (2024) https://royalsociety.org/news-resources/publications/2024/summary-visa-costs-analysis-2024/

[25] Future of Global Health Initiatives, *The Lusaka Agenda: Conclusions of the Future of Global Health Initiatives Process* The Lusaka Agenda: Conclusions of the Future of Global Health Initiatives Process – FGHI

- Using the UK's voice with the boards of Global Health Initiatives (GHI) to push for accelerated collaboration between organizations, and to hold GHIs accountable for progress against health system strengthening indicators as well as broad health impact metrics.
- Ensuring the UK's own bilateral development efforts make a stronger contribution to primary health care by effectively strengthening systems for health, and play a catalytic role towards sustainable, domestically-financed health services and public health functions.
- Avoiding the creation of new GHIs, with an emphasis instead on strengthening and enabling flexibilities within existing structures and systems to address both today's and tomorrow's needs.
- Working with others to develop and deliver a common vision for the future of development assistance for health, in which it is coherent, catalytic, country-driven and complementary to domestic investments.

- **Strategic technologies:** The UK has advantages in several emerging technologies internationally – to maintain this the Government should focus on:
  - **Engineering Biology: The Government's industrial strategy should set out a clear plan for developing Engineering Biology and related technologies in the life sciences sector**. It should recommit to, and build on, the £2 billion funding target over the next decade and implement the plans outlined in the Science and Technology Framework and National Vision for Engineering Biology. The Government should set out more details of how it intends to allocate this funding and prioritise foundational research within this, which provides the bedrock of understanding that the long-term growth benefits of translation and commercialisation are built on. The Government has an opportunity to create a stable, low-barrier environment for investment and research in emerging technology by supporting deliberative public engagement. It is critical that public engagement covers not only the short and medium-term translational but also long-term fundamental research, to avoid the risk of political backlash and a disproportionate regulatory response.
  - **AI: Create an environment for AI and science to thrive in the UK**. Wellcome supports the Prime Minister's ambition for the UK to be "one of the great AI superpowers".[26] By 2028, analysts expect the global market for AI to exceed $1 trillion in size. This Government should support critical national infrastructure, including the high-performance computing resources for the life sciences community and build on the early promise of the UK AI Safety Institute to develop

[26] Prime Minister's Office, 10 Downing Street, *PM speech on AI Opportunities Action Plan: 13 January 2025, (2025),* PM speech on AI Opportunities Action Plan: 13 January 2025 - GOV.UK

clear, risk-proportionate regulatory structures for AI-focused companies to thrive in the healthcare sector and beyond.