Spending Review 2025: Submission from the Campaign for Science and Engineering (CaSE)

The Campaign for Science and Engineering (CaSE) advocates for UK R&D, for the benefit of lives and livelihoods. We are a charity supported by a diverse membership including businesses, universities, professional bodies, research charities and individuals. Our members span the whole breadth of R&D – including discovery research, science, engineering, and innovation across the public, private, and charitable sectors.

In this submission we set out the views and policy recommendations of CaSE on increasing public investment in R&D, supporting regional economic growth, and ensuring the sustainability of the R&D system. These have been developed through extensive consultation with our members who span the whole breadth of the R&D sector across all nations and regions of the UK.

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1. Introduction: invest in R&D to drive economic growth

The commitment by the Government to protect overall public R&D investment, with £20.4 billion allocated in 2025-26, is hugely welcome, and shows clear recognition that investing in R&D is vital to driving economic growth. CaSE evidence shows that people across the 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.[1]

Why is investing in R&D important?

R&D can help the Government meet its objectives across its missions by producing new knowledge and ideas that underpin innovation and technological advancement, as well as generating new types of jobs. A majority of the public think that the Government should invest more into R&D (66%) and use R&D as a tool to achieve its missions (72%).[2]

There is extensive evidence that public investment in R&D provides significant economic returns. Investment in public R&D increases private sector output and productivity, leading to significant rates of return. The latest estimate, commissioned by the Department of Science, Innovation and Technology (DSIT), suggests an average rate of return to public R&D investment of up to 40% after 6 years, with the possibility of even greater returns over a longer time period.[3] Public investment in R&D also crowds in significant levels of private sector investment in R&D. Recent estimates by the National Centre for Universities and Business (NCUB) show 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.[4] Additionally, CaSE's research has

[1] CaSE Public Attitudes to R&D 2022-23, CaSE (2023)
[2] CaSE Public Attitudes to R&D and the Government's missions 2024, CaSE (2025)
[3] Returns to Public Research and Development, DSIT (2024)
[4] Unlocking growth: The impact of public R&D spending on private sector investment in the UK, NCUB (2024)

found that the public naturally link economic growth to R&D investment, and vice versa, and report a clear understanding of how R&D investment can lead to growth.[5]

While we recognise that there are difficult decisions to be made with the public finances, this Spending Review presents an opportunity to invest in R&D for the long term, and maximise the returns on public R&D investment by ensuring that the UK policy environment has measures needed to encourage further business R&D investment. Furthermore, greater certainty and predictability in the policy environment are vital for encouraging R&D investment and maximising its returns.

To realise that goal requires:

- Continued commitment to ambitious, long-term, and sustainable investment in R&D to ensure that the UK is a leader within the G7 on R&D investment
- Driving regional capacity building to further strengthen local and regional innovation ecosystems and support the regional diffusion of innovation
- Helping UK universities achieve long-term financial sustainability
- Supporting a competitive immigration policy that attracts international R&D talent to meet its ambitions for a more R&D intensive economy

These are set out in the following sections.

Commit to ambitious, long-term, and sustainable investment in R&D to ensure that the UK is a leader within the G7 on R&D investment

A stable and predictable plan, supported by sustained investment, is vital to help research and innovation thrive in a way that drives economic growth and prosperity across the UK. Continued investment in R&D will fuel economic growth and boost productivity, enabling researchers and innovators to continue driving the high-skill sectors and cutting-edge technologies that will help shape the UK's future. CaSE's research exploring attitudes to R&D and the objectives of the Government's missions found that 73% of people think R&D has an essential or important role to play in both growing the economy and creating new jobs.[6]

Crucially, certainty around stable public investment will also help to leverage the private investment needed to achieve the Government's ambitions for growth. The most recent ONS business enterprise research and development (BERD) data shows that business R&D investment in real terms (constant prices) has fallen in the last two years and was the same in 2023 as it was in 2018.[7] This is concerning especially when approximately two-thirds of R&D in the UK is carried out by businesses and is crucial to driving growth in the UK economy.[8]

Commit to a long-term plan for R&D

[5] CaSE Public Attitudes to R&D and the General Election 2024, CaSE (2024)
[6] CaSE Public Attitudes to R&D and the Government's missions 2024, CaSE (2025)
[7] UK business expenditure on R&D has fallen for 2 years, CaSE (2024)
[8] Research and development spending, House of Commons Library (2023)

Members have told CaSE that stability of intent and clear signalling of priorities from Government enables effective long-term planning and gives businesses confidence to keep on investing in R&D. Outlining priority areas of focus acts as a signal to globally mobile businesses looking to invest in R&D that there will be stability, without 'picking winners', allowing businesses to invest in those research areas. While some flexibility is needed to allow for periodic updates to policy to ensure it remains fit for purpose, what matters for businesses is predictability through clear signalling of intent and direction of travel. There is also appetite for a long-term approach to decision making among the public, with more than 8 in 10 people agreeing that politicians should embrace long-term thinking and solutions.[9] It is welcome that the Industrial Strategy green paper recognises the importance of building long term predictability to provide businesses with the certainty they need to invest.

Set out ideas for 10-year budgets

10-year budgets for key R&D activities are a welcome first step to give confidence to businesses and globally mobile talent that the UK is serious about investing in future growth and productivity, and to leverage significant private investment in R&D. They are also a great opportunity for the Government to be ambitious about ensuring the UK is a leader within the G7 on R&D investment.[10] For longer-term R&D budgets to deliver the best outcomes, their design and implementation will be crucial. This includes the criteria for who gets long term funding, how it is monitored and managed, learning lessons from existing examples and striking the right balance between long-term and responsive funding.

CaSE convened a roundtable in September 2024 to discuss how long-term funding for R&D could work in practice.[11]

The roundtable was attended by senior subject specialists across the R&D and innovation sector, including funders, universities, businesses, research institutes, and senior civil servants from Treasury and DSIT. The outcome of the discussion was set of considerations that need to be looked at in the design and implementation of 10-year budgets. These include the parameters for long term funding, the criteria for who receives long term funding, as well as mapping and learning lessons from existing examples.

Parameters for implementing long term funding

- **Consider the remit and level at which investment is set:** There is an outstanding question about whether the level of investment concerns the R&D or UKRI budget as a whole or whether it should focus on specific levels, such as people, projects or organisations.
- **Strike the right balance between stability versus flexibility:** While too much policy dynamism has had a harmful effect on institutions' ability to function well and provide good value for money, there needs to be enough flexibility within budgets and programmes to be able to change focus and direction in response to developments in

[9] CaSE Public Attitudes to R&D and the General Election 2024, CaSE (2024)
[10] Cross sector call for the UK to be a leading country in the G7 on R&D investment, CaSE (2024)
[11] Long-term R&D funding, CaSE (2024)

the R&D and innovation landscape. As an example, 10 years ago the Government would not be funding AI as a priority compared to now. In addition, political and ministerial priorities have an influence on setting the direction for R&D spending, and so the budget must be directable to new political priorities.

- **Introduce an exit point and strategy:** A longer-term R&D programme requires a clear exit point and strategy. There should be a requirement to stop things that are not working or not generating benefits.
- **Be mindful of reducing bureaucracy:** It is important to avoid adding significant additional requirements as part of longer-term budgets. This could be by considering existing routes or mechanisms to draw on.

Criteria for who receives long term funding

- **Consider the added value and benefit:** When deciding where to direct long term R&D funding, consideration should be given to the additional value and demonstrable benefit from a long-term funding settlement, as well as which areas or sectors stand to benefit the most. For example, this could be considering conditionality of return and the ability to leverage private R&D investment.
- **Consider the realistic timeframe on returns**: The length of the R&D cycle is different in different sectors. For example, the digital sector is typically more rapid and agile in contrast to the aerospace, nuclear or pharmaceutical sectors that have longer term R&D cycles. The example was given of the Aerospace Technology Institute (ATI), which needed to align and invest alongside private aerospace companies that invest in 10-15 year programmes. There was the recognition that this may not be possible or appropriate for all sectors.
- **Ensure transparency and clear communication around parameters:** There needs to be a rational and transparent process when deciding which establishments / institutions / activities warrant long term investment over others. There will need to be greater transparency and accountability around departmental R&D budgets and how they are spent. This includes appropriate monitoring and scrutiny around what counts as R&D. Communication will be crucial so as not to be seen as 'deprioritising' sectors that do not get long term investment plans, and risk segmenting the R&D sector further. It will be important to consider what other measures such sectors would be best suited to benefit from or whether long term budgets will need to be allocated differently.
- **Geographical distribution of long-term R&D funding**: There are trade-offs in distributing funding that will need to be considered. For example, between distributing funding across the UK versus targeting areas that may be best placed to benefit from such funding (for example, that already feature significant investment from industry).

The existing landscape of R&D institutions and programmes

- **Learn from existing examples:** Good examples of longer-term timelines exist in the R&D and innovation landscape. These can provide lessons on what has worked well or

less well. Examples include: the Aerospace Technology Institute and the non-hypothecated side of the dual support system in Higher Education. Evidence suggests that it has broadly worked well for the ATI, but one challenge has been a lack of flexibility in moving things around within years.

- **Map the existing landscape of R&D institutions in the UK:** It is currently difficult to map institutions including around the definition of what counts as an R&D institution. There is a need to take stock of what the UK has before we can define who gets what and how much.

Strengthen the foundations of the UK research base

Members have told CaSE it is important not to lose sight of the vital role of broad, non-targeted discovery research in supporting the missions and the UK's future. A narrow approach to investment leaves discovery research underpowered and unable to deliver the dynamic environment in which mission-driven R&D thrives. For example, without a strong research base sustained over many years the UK would not have been able to develop a COVID vaccine in such a short space of time. Broad focused discovery research delivers not just for today's missions but also on future, sometimes unforeseen, challenges. A majority (77%) of the public think the Government should focus more on R&D for Britain's future.[12] This national capability not only builds skills for the future but is also a crucial component in attracting inward investment to the UK. Investment in non-targeted discovery research may also contribute across multiple missions in a way that a mission-focused, applied approach to investment might not.

Quality-related (QR) research funding[13] is a flexible, longer-term funding source that allows universities to undertake non-targeted R&D, engage in long-term strategic projects, attract external investment, and provide career stability for the research community. However, QR funding is increasingly under pressure as institutions are having to increase investment to meet the full economic cost of research.[14] The proportion of research costs covered by external funders has decreased over time, with UK Research Councils now funding only 68.9% of full economic cost. 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.[15]

Recommendations

- The Government should commit to a long-term plan for R&D, ensuring alignment with other policy priorities, including the Industrial Strategy and the Science and Technology Framework, to create a coherent long-term framework.

[12] CaSE Public Attitudes to R&D and the Government's missions 2024, CaSE (2025)
[13] QR funding consists of block grant funding allocated annually to universities by Research England. QR funding is a highly competitive funding source which allows universities to engage in long-term strategic planning for research and is used to support a wide range of activities. Research Excellence Grant (REG) funding from the Scottish Funding Council is the equivalent to QR in Scotland.
[14] The impact of QR funding, Russell Group (2024)
[15] The impact of QR funding, Russell Group (2024)

- Work with the R&D sector to develop plans for 10-year budgets as part of a wider strategic framework for R&D. Designing flexibility into 10-year budgets will be crucial to ensure they are a success, including the ability to change direction as well as to conduct shorter term projects within a longer-term timeframe.
- Continue to expand the budget allocated to discovery research, including uplifts to QR funding, as a vital counterpart to growing mission-driven funding streams. This includes action to address the decline in the value of QR funding and ensure that it is uplifted in line with new R&D commitments.

Drive regional capacity building to further strengthen local and regional innovation ecosystems and support the regional diffusion of innovation

Being able to support and increase R&D capacity and capability across the UK will be an important determinant of increased regional economic growth. It is positive to see the Government commit to extending the Innovation Accelerators programme, which our evidence shows has been successful in providing regions with the funding and the freedom to enact effective policies at a local level. It will be important to avoid excessive oversight from central government and instead support regions and local leaders in their capacity to drive things forward. It is also welcome to see the Industrial Strategy green paper and the Devolution white paper recognise the role of R&D in driving local and regional innovation ecosystems. CaSE research has shown this is also important to the public: a majority said it was important their region carries out a lot of R&D, and 66% said they would support a new research lab being built in their local area. This support is driven by the local jobs R&D could generate and inwards investment in the area.[16]

Provide continuity of R&D funding

Creating a clear continuum of funding is needed to sustain regional capacity building for R&D. A lack of long-term funding means that capacity, skills, collaborations and culture shifts that have been built up over the course of a project or programme are not sustained when funding runs out. Long term regional funding can allow local authorities to incentivise international businesses to establish sites in their region and, ultimately, conduct growth-stimulating production activity there, benefitting the regional and UK economy.

Provide and support access to infrastructure

Not all regions benefit from the presence of existing R&D and innovation infrastructure able to support all stages of the pathway to commercialisation or the civic leadership structures to drive forward on the innovation agenda. While many places have strong universities, they can lack a translational research institute that can fill a gap in the translation pathway. Furthermore, access to the right infrastructure at the right time, such as scale up facilities that support commercialisation, can be costly for smaller businesses.

Foster inter-regional collaboration

[16] CaSE Public Attitudes to R&D 2022-23, CaSE (2023)

To strengthen the impact of R&D requires fostering an environment that is collaborative rather than competitive between regions. This includes supporting collections of places with related R&D strengths to work together and explore collaborative opportunities to attract investment for a region. Inviting multiple regions to bid for the same pot can invite competition where regions may naturally complement each other. By engaging with different regions or clusters early and establishing how they might use their regional strengths to work together, within a fixed funding allowance, would avoid the need for regions to retrofit collaboration into competitively acquired project funding. Place-based collaborative networks between different types of organisations can also support longer-term planning in a region and support collaborative opportunities in R&D.

Recommendations

- Funding agencies should work with local government and Mayoral Strategic Authorities to provide continuous stewardship of regional R&D programmes and innovation initiatives. This would increase bid efficiency and streamline future funding rounds, even if it is still applied for in tranches.
- The Government and funding agencies should design large scale inter-regional collaboration into national strategic planning and funding calls, rather than encouraging competition between regions.
- The Government should consider how access to infrastructure could be subsidised or develop ways of bringing in joint funding with industry to reduce the upfront cost for smaller businesses.

Support UK universities to achieve long-term financial sustainability

The UK's universities are a national asset and play a pivotal role in the R&D and innovation landscape through their teaching, research and knowledge exchange activities. They bring a range of diverse benefits to the UK's R&D landscape and to society more broadly.[17] They also have a central role in bringing together industry and other stakeholders to create local partnerships that drive cutting-edge R&D in world class facilities.

The financial sustainability of the R&D system is vital to the future success of research and innovation in the UK. One issue that has come under renewed focus is the significant financial pressures facing UK universities.[18] They have substantial gaps in their current R&D funds, stemming from short falls in the UK's current research funding model, including both public and charitable funding provisions. Furthermore, a diminishing international student population is exacerbating existing shortfalls in university research budgets.[19] These pressures have led to universities reducing staff and course offerings, and some are at risk of closure.[20] To deliver their

[17] Universities: A crucial component of UK R&D, CaSE (2024)
[18] Increased pressure on higher education finances, OfS (2024)

[19] Increased pressure on higher education finances, OfS (2024)

[20] Increased pressure on higher education finances, OfS (2024)

role in the R&D ecosystem effectively, universities must be supported to achieve a sustainable financial model across both their teaching and research activities.

CaSE members have told us that businesses and service providers that rely on the supply of R&D and innovations universities provide will simply go and find it elsewhere rather than stay in the region, or even in the country, and lose it.

Recommendations

- Take short term action to support universities while longer-term reform is carried out.
- Conduct a holistic review of the funding mechanisms for university-led R&D (and universities more broadly) to increase 'end-to-end' coverage of the costs of research activity.

Ensure a more competitive immigration policy that attracts international R&D talent

Attracting global talent is essential to support a thriving, collaborative UK R&D sector that in turn drives economic growth. R&D-intensive businesses and institutions need a skilled workforce to support their sustained growth and innovation.[21]

The previous Government estimated that 150,000 additional researchers will be needed by 2030.[22] While it is important to increase domestic talent through upskilling the existing workforce and increasing the number of people training in science, technology, engineering and mathematics (STEM), the emergence of these newly trained workers will take time. In the short term, international talent is needed to fill skill gaps.[23] Moreover, R&D is a global endeavour – migration brings enormous benefits to the UK R&D sector, increasing international collaboration and knowledge exchange. CaSE's research showed that a majority of the public would prefer universities in the UK to recruit the best global talent, even if it means more immigration to the UK.

When asked about the advantages of UK universities employing international researchers, the most selected answer was that it brings a diversity of ideas and culture to the UK (37%). Other commonly chosen answers related to improved opportunities to collaborate internationally, international relations, strengthening the quality of R&D and bringing in top talent, as well as benefits to the economy. [24]

Last year, the UK immigration and visa system saw changes that have increased upfront costs and restricted eligibility criteria for overseas workers and their dependents. 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.[25] Total upfront costs are higher in the UK than all

[21] The Skills Opportunity: Building a more innovative UK, CaSE (2023)
[22] R&D People and Culture Strategy, BEIS (2021)
[23] The Skills Opportunity: Building a more innovative UK, CaSE (2023)
[24] CaSE Public Attitudes to R&D and the General Election 2024 (Attitudes to UK Universities and International Students and Researchers), CaSE (2024)
[25] Summary of visa costs analysis, The Royal Society (2024)

other countries in the analysis. When excluding the UK from the international average, UK upfront costs are up to 17 times higher. Evidence gathered by CaSE indicates that visa costs were already prohibitively expensive for researchers.[26] The changes have further reduced the attractiveness of the UK as a destination for international applicants bearing the burden of these costs.

Recommendation

- Take immediate action to reduce upfront visa and immigration costs. Any changes to visa routes need to make it simpler for individuals and businesses to navigate and should consider how to attract talent across all of R&D.

[26] The Skills Opportunity: Building a more innovative UK, CaSE (2023)