Campaign for Science and Engineering (CaSE) response to the Science, Innovation and Technology Select Committee inquiry into: Financing and Scaling UK Science and Technology: Innovation, Investment, Industry

Summary

- While R&D investment commitments from the UK Government are welcome and a good step in providing businesses with the certainty they need to invest, there has historically been instability and lack of predictability in the policy environment that supports innovation.
- Although the innovation environment has several promising and well-received policy measures, there are examples where insufficient resources and expertise are hindering implementation.
- The financial sustainability of the R&D system is vital to the future success of research and innovation in the UK. This includes financial sustainability, as well as the people and skills that underpin it. To deliver their role in the R&D ecosystem effectively, universities must be supported to achieve a sustainable financial model across both their teaching and research activities. Furthermore, to ensure the UK remains an attractive destination for internationally mobile talent it is vital to have an internationally competitive visa system for skilled R&D workers.

About CaSE

The Campaign for Science and Engineering (CaSE) works to put science and engineering at the heart of the UK's future. By offering responsive and non-partisan solutions, we aim to help research and innovation thrive in a way that improves people's lives and livelihoods. We are an independent membership body representing over 100 scientific organisations including businesses, universities, learned societies, and research charities as well as individual scientists and engineers.

Scaling UK science and technology

Translating excellent basic science and technology into global companies has long been recognised as a problem for the UK. Many policy initiatives have tried to address this. What are the key barriers that the Government must address to fix this? What specific policies need to change? Why have previous attempts not succeeded?

Lack of stability and predictability within the policy landscape

A stable and predictable policy environment is vital to enable effective long-term planning and investment by businesses in R&D. Predictability through clear signalling of intent and direction of travel from government is crucial for all R&D-intensive

companies and particularly important for deep-tech companies, whose timeframes for commercialisation can be especially long.

While R&D investment commitments from the UK Government are welcome and a good step in providing businesses with the certainty they need to invest, CaSE's report Backing Business R&D found that there has historically been instability and lack of predictability in several specific areas of policy.[1] These include financial support, regulation and public procurement. Although some promising and well-received policy measures have been announced in these areas, there are examples where insufficient resources and expertise are hindering implementation.

Lack of support for R&D intensive start-ups and scale-ups

Improve financial support for scale-up businesses

The ability to access the right type of finance at each stage of development is critical to support translation and commercialisation of innovations and enable R&D focussed businesses to scale and grow. The scale-up funding gap has been raised consistently in recent years, including in CaSE's report Backing Business R&D that provides a series of recommendations on how to tackle it. It is welcome that the UK Government has committed to making it easier for start-ups and scale-ups to access external sources of financial support – it should now focus on delivering and implementing existing recommendations

Medium sized R&D-led businesses, which form a large part of business-driven R&D activity in the UK, often lack the necessary support. Providing continuity of funding is vital in supporting the commercialisation journey beyond the 'valley of death'. Series B funding was reported to be a significant challenge in the UK – while there are many funding pots, these are often not large enough. There are also sector-specific challenges, for example for deep-tech companies there are often no 'price setters' who know how to value a deep-tech company post-Series A funding. The lack of financial support at these stages of development means that the UK often fails to keep many medium sized businesses.

A related challenge is the investment thresholds for UK Government venture capital schemes. There are three schemes, Enterprise Investment Scheme (EIS), Seed Enterprise Investment Scheme (SEIS), and Venture Capital Trust (VCT), that are designed to encourage investment in higher-risk, early-stage innovative businesses. The amounts that VCTs can invest using the schemes are based on thresholds that can limit the amounts available within Series B rounds of funding for businesses. Although the schemes provide a good incentive, in practice there is a need to update the thresholds regularly to ensure they remain relevant to the current investment landscape. **The UK**

[1] Backing Business R&D: Incentivising continued investment in UK innovation, CaSE (2024).

Government should ensure the investment thresholds for the EIS and SEIS schemes are appropriate and regularly updated. This includes regularly reviewing and updating the thresholds to ensure they remain relevant to the current investment landscape.

Support access to infrastructure across the UK

There are challenges around access to the R&D infrastructure that supports businesses to scale and grow. Of particular concern is the shortage of specialised space for early-stage businesses that require larger spaces as they scale-up. Access to available scale up facilities can also be prohibitively expensive for businesses.

In addition, there are regional differences in the access to infrastructure to support commercialisation. 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. **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.**

There are also challenges relating to wider enabling infrastructure (e.g. housing, transport, and utility supply) that create barriers to accessing and fully utilising R&D infrastructure across the UK. These constraints can make it difficult for businesses to attract the right talent and grow their workforce.

Lack of agility and capacity in the regulatory system

A forward-looking regulatory environment sends a powerful signal to businesses and investors about the attractiveness of the UK environment. We have also heard from CaSE members and businesses that regulation is necessary to ensure consumer confidence in businesses. There must, therefore, be a balance between not stifling first mover advantage while having sufficient regulatory oversight.

In several sectors, the UK regulatory system is already innovative and creative. Regulatory sandboxes are an example of this, with the Financial Conduct Authority and Information Commissioner's Office in particular offering successful sandboxes. The new Regulatory Innovation Office is a positive step in supporting regulators, providing regulatory certainty and reducing delays around new and emerging

technologies, although there already concerns that it is not adequately resourced or given the backing it needs to be successful[2].

However, in certain sectors, regulation is failing to keep pace with new and emerging developments in technology. For example, in the construction sector greener cement alternative materials do not conform with existing regulation and so cannot be adopted. In addition, the intersection of technologies, for example artificial intelligence (AI) with life sciences, makes it particularly difficult to meet the requirements of the regulatory system. Regulators themselves often do not know how a new technology would fit within existing regulatory requirements, since a new and emerging technology is ahead of what a regulator has seen before.

Another area that requires urgent attention is how regulators are resourced to carry out their functions. Challenges around regulatory capacity have been further compounded by the UK leaving the European Union, which has led to additional workflow for regulators across multiple sectors. Lack of regulatory capacity can lead to costly delays for businesses, which is a particular issue for small and medium sized businesses (SMEs). It could also have an impact on business confidence in the UK regulatory environment.

Insufficient public procurement processes

Adopting innovation through public procurement provides wide ranging benefits to the public sector, enabling the delivery of improved products, processes, and services. Our evidence shows that the Government tends to signal its interest quite late compared to other countries' governments. **Clear signalling of Government intent to act as early adopter through public procurement will enable businesses to develop strong route to market strategies, increasing the confidence of sectors to invest in targeted R&D.**

In addition, procurement strategies continue to be insufficient to support a thriving R&D business environment. A culture of risk aversion and the focus of procurement policy on achieving the lowest cost or narrowly defined value for money can hinder access to innovative solutions. These constraints within procurement processes can present a barrier for R&D intensive businesses that do not operate in established markets and may deter businesses from applying in the first place, therefore risking public procurement being closed off to new ideas and approaches. To address this, we recommend **introducing a procurement process for early-stage, research-intensive businesses with an alternative system of checks that reflect their unique situation as pioneers operating in unestablished markets.**

[2] Fixing the Regulatory State

Strategic priorities for UK science and technology in a changing world

How should the UK's science and technology strategy respond to ongoing major changes in the economic, geopolitical, and technological landscape? What challenges and opportunities now face the UK's science and technology sector? What policy actions would you prioritise?

Address the sustainability of the R&D system

The financial sustainability of the R&D system is vital to the future success of research and innovation in the UK. Universities are under significant financial pressure, with substantial gaps in their current R&D funds, stemming from short falls in both public and charitable funding provisions. To deliver their role in the R&D ecosystem effectively, universities must be supported to achieve a sustainable financial model across both their teaching and research activities.

In CaSE's briefing Universities: A crucial component of UK R&D, 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.[3]

Universities often act as a focal point and anchor for regional research institutions and clustering of expertise. In establishing a network of research organisations, universities help bring in funding to collaborative endeavours that individual businesses would otherwise be unable to access. Universities also have a vital role as a neutral arbitrator in supporting local businesses to collaborate rather than compete. If the retrenchment of universities is uneven across the regions of the UK, then this could leave some regions without this important focal point for economic activity.

It would be very harmful to the UK economy, future capability and the Government's wider aims on growth to allow universities to cut back in a way that is not coordinated or strategic across the country. If university R&D is allowed to atrophy in the short-term, then we will not be able to build a university and research system that is financially sustainable in the long-term, damaging the sector's ability to produce world-leading outputs and contribute to economic growth. Once expertise is lost from the UK it would be very hard to rebuild.

The UK Government must provide short-term support for universities to encourage a more coordinated and strategic approach to prevent the loss of world-leading R&D knowledge and expertise. This would allow the time and space to work together as an R&D sector, with the UK Government, to design an R&D system that is financially sustainable for the long-term.

[3] Universities: A crucial component of UK R&D, CaSE (2024).

Support a flexible and competitive visa and immigration system that attracts global talent

While a skilled domestic workforce is important for achieving the UK's science and technology ambitions, international talent provides unique benefits for the UK. International mobility brings new knowledge to the UK, boosting our capacity for innovation. It can also fill skill gaps in the UK in the short-term unlike domestic upskilling.

Changes made to the visa system for researchers, skilled workers and international students by the previous Government have reduced the attractiveness of the UK as a destination for international talent. UK visa costs for skilled workers, dedicated researchers and international students are now significantly higher than other leading science nations with upfront costs being 438% to 1,583% higher in the UK.[4] CaSE research shows that the public see international students and researchers as beneficial to the UK and UK universities, and that immigration reforms that would restrict UK R&D are viewed negatively.[5]

To ensure the UK remains an attractive destination for internationally mobile talent it is vital to have an internationally competitive visa system for skilled R&D workers. We recommend: **reducing the upfront cost of UK visas (including the Immigration Health Surcharge) in line with international competitors; supporting businesses to navigate the visa system; and de-risking visa sponsorship for organisations, such as introducing a process to secure refunds for potential losses**.

Strengthen R&D's connection to the UK public

Support for R&D cannot be taken for granted, especially in the current economic climate. It is vital that the R&D sector makes a clear and compelling case for R&D being a national priority and demonstrates to decision makers and the public that it is relevant to the UK's political and societal priorities. CaSE's research into public attitudes towards R&D has shown that while a large majority (70%) feel it is important for the Government to invest in R&D, people struggle to see R&D's benefits, risking it being labelled a 'luxury'. Over a third of people see very few or no ways that investment in R&D improves their lives. [6]

In particular, R&D's poor connection with younger groups is a major risk, with under 44s displaying more scepticism towards R&D than older people. For instance, 72% of 35-44s either agreed that "R&D doesn't benefit people like me" or were neutral or unsure, compared with 43% of over 65s (May 2022).

[4] Summary of visa costs analysis, Royal Society, (2024).
[5] Public Attitudes to R&D and International Talent, CaSE (2025)
[6] CaSE Public Attitudes to R&D 2022-23, CaSE (2023)

Our research has found that place and purpose are effective ways to connect with the public. More than two-thirds (67%) would like to see more R&D carried out in their local area, citing benefits to local economy and jobs (October 2023). A majority think that the Government should use R&D as a tool to achieve its missions, and that new research is essential or important to tackle major challenges like the quality of the NHS, climate change or growing the economy (Sept 2024). [7]

CaSE recommends that R&D advocates strengthen their connection with the public by using messaging that emphasises place and purpose, and that demonstrates that R&D is solving real problems, helping the next generation and benefitting local areas.

[7] CaSE Public Attitudes to R&D and the Government's Missions 2024, CaSE (2025)