

Dear Lord Patel,

A number of recent developments around UK government research funding have left the sector with some serious concerns and questions. CaSE is pleased to see that the Committee is investigating these issues and seeking answers from the Government about how it plans to fund research over the coming year and beyond. I set out more detail below about the recent concerns and issues relating to Horizon Europe, Official Development Assistance (ODA), Medical Charities and the long-term stability of the sector.

Horizon Europe

The UK's participation in the next flagship European Union research funding programme, Horizon Europe, was agreed as part of the UK-EU Trade and Cooperation agreement. This was strongly welcomed by CaSE and the research community.

Despite the agreement on UK association, it was not known how the UK would pay its financial contribution until the eve of the Easter weekend. The UK Government announced that it was to make an additional £250m available to the Department of Business, Energy and Industrial Strategy (BEIS) to enable the first year's payment to be made without cutting existing UKRI programmes or planned uplifts. Although the UK's required contribution to Horizon Europe is £1bn in 2021/22, availability of existing, unallocated research budgets in addition to the £250m means that the full cost of association should be met.

In the 2020 Spending Review, the UK Government announced that BEIS would receive £400m of funding to support 'government priorities' and build 'science capability'. It was confirmed last week that this pot will be used to pay for this year's Horizon Europe bill. CaSE also understands that £350m was previously set aside in the event that the UK would need to create alternatives to EU funding programmes, and this pot will make up the remainder of the UK's contribution, bringing the total to £1bn. This means that core research council budgets and existing UKRI commitments should not be affected.

However, these funding announcements only cover the cost of association in this financial year. The Government will need to set out how it will pay for association in future years at the spending review expected later this year. The UK's financial contribution to Horizon Europe will be based upon the ratio of UK:EU GDP and using this to calculate the percentage of the Horizon Europe cost that the UK is expected to contribute. Currently, UK GDP is equivalent to 18.12% of the EU's GDP and the current budget for Horizon Europe is sitting at €95.5bn, although this is yet to be confirmed. With the addition of a 2% admin fee and using a fair exchange rate, the estimated cost will be just under £15bn over the 7-year lifetime of Horizon Europe, which translates into an average of just over £2bn a year.

The UK's bill is set at £1bn this year due to a [clause within the UK-EU deal](#), setting out how the payments will be scheduled. Using these estimates and implementing this clause, it means the UK's bill for Horizon Europe could reach £3bn p/a in 2026 and 2027. As the UK's public research investment envelope is set to grow to £22bn in 2024/25, CaSE is asking for graduated and tapering

support from HM Treasury to BEIS over the course of the programme, ensuring that continuity of funding for domestic programmes is retained.

ODA funding for research has been disproportionately affected

Cuts to ODA budgets have been handed down to UKRI, severely impacting the UK's research partnerships with many developing countries, most notably through the Global Challenges Research Fund (GCRF). UKRI has been given £125m in ODA funding by the UK Government for the financial year 2021-22 but has £245m in existing funding commitments. The £120m shortfall means UKRI has to cut ongoing research projects in the UK and developing countries. UKRI has said it can only fund projects until the end of July and that almost 900 projects are affected.

Figures surrounding the overall level of ODA cuts show that R&D elements of the portfolio have been disproportionately affected. UKRI received £422m in ODA in 2020-21, so its budget fell 70% year on year. In comparison, BEIS ODA budget fell by 50% - from £1.4 billion to £706 million - and the overall reduction to ODA is estimated at around 30%.

These cuts not only have a hugely damaging impact to short-term outcomes for research projects but cause immeasurable damage to the long-term ability of the UK to undertake and support life-changing research for people across the world. Funding cuts lead to decreasing capacity of institutions to undertake research which affects the ability to carry out research in the future, alongside the risk of losing hundreds if not thousands of talented research staff. Some of the UK's leading research institutions are already having to make decisions that will lead to redundancies for research staff. At a time when the UK is seeking to become a 'science superpower', acts of cutting research projects midway through their cycle are the exact opposite of the actions of a 'superpower'.

Furthermore, at the end of last year [the Foreign Secretary stressed that](#) ODA had an important role to play in boosting international scientific partnerships, "because these are the building blocks of development and they require a long-term strategic commitment". Unfortunately, the government is failing to back up these words.

Life Science Charity partnership fund

The research charity sector has been severely affected by falls in fundraising revenue as a result of the pandemic. Led by the Association of Medical Research Charities (AMRC), the medical research charity sector has proposed a Life Sciences Charity partnership fund¹ to support research-intensive charities to continue to fund pioneering research. CaSE fully supports the calls for support for the sector. Medical research charities often dominate the endeavours in their specific field of work, for example the British Heart Foundation funds over half of the UK's independent heart and circulatory-related research².

The AMRC is proposing a co-investment scheme based on a partnership between government and charities that ensures vital medical research charity investment in R&D remains part of the UK's diverse research base. The fund would be given provision of at least £310m of funding from government in FY21/22 to bridge the projected shortfall in sector spend, with further investments in the FY22/23 and 23/24. This investment would ensure overall sector investment is maintained over

¹ <https://www.amrc.org.uk/Handlers/Download.ashx?IDMF=1cf57b61-5794-46ff-b3a6-0814bc6e9127>

² <https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2020/january/bhf-funding-more-than-half-of-all-uk-heart-and-circulatory-disease-research>

this three-year period. This fund would allow charities to continue to support research in universities and industry, as well as continue to build invaluable research partnerships across academia, business and the charities sector.

The pandemic has highlighted the importance of the UK's strength in life sciences research. Without the UK's world-leading medical research charities, breakthroughs in treatments for diseases such as cancer, circulatory diseases and diabetes may be lost. This point in time represents an extremely important milestone in support for medical research and without adequate support it is likely that significant amounts of medical research can no longer be funded by these organisations.

Long term stability of R&D funding

These issues have highlighted the Government's lack of a long-term plan for increasing research intensity. While the R&D Roadmap, published in July 2020, and a 3-year settlement for UKRI's core research budget in the 2020 spending review are very welcome the Government still doesn't have a long-term implementation plan or strategy for how it will reach its target of £22bn on R&D by 2025 and 2.4% of GDP invested in R&D by 2027. It is critical that the Government sets out a plan and budget at the next spending review. This would help reassure the sector and give confidence to businesses to invest in their own R&D plans, which will be vital to meeting the 2.4% target. Having an over-arching strategy that encompasses the whole of Government would help set the context for any future spending decisions and could help avoid another situation such as that caused by the ODA cuts or the uncertainty over where funding for Horizon Europe would come from.

The Covid-19 pandemic has created significant challenges over the year, with the crisis affecting homes and families, businesses and the economy. There has been particular disruption to R&D-intensive businesses in some sectors - and therefore to UK research and innovation as a whole.

According to the UK Office for National Statistics (ONS), companies account for around 70% of all R&D activity in the country. While some R&D-intensive sectors have weathered the COVID-storm, others such as aerospace, automotive and oil and gas, have been hard hit. The ONS figures show that in 2018, these sectors accounted for around £6 billion of UK R&D, nearly a quarter of total corporate investment³.

While there are uncertainties over the full impact on the wider research effort, CaSE has heard from leading companies that R&D has been scaled back significantly, as they focus on keeping cash in the business. Restoring R&D activity is expected to take years, not months. It seems likely there will be knock-on effects beyond these sectors, for example in the adoption of automation processes in manufacturing in general, or in the pace of cross-sector research programmes, such as in battery technology.

In the midst of this bleak picture come opportunities, as companies re-prioritise and focus on new growth areas. As one example, energy and transport companies are accelerating their 'green revolution'. These could dovetail with government priorities such as Net Zero and 'Building back better', given the right support. Given this, as part of a long-term plan, CaSE has called on the Government to consider the value of a business R&D strategy, to provide a much-needed national, coordinated and concerted approach to incentivise and grow corporate R&D in the UK, and provide a platform to help drive recovery and prosperity, on a national and international level.

³<https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/bulletins/businessenterpriseanddevelopment/2018>

Yours sincerely,

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About CaSE

The Campaign for Science and Engineering (CaSE) is the UK's leading independent advocate for science and engineering. Our mission is to ensure that the UK has the skills, funding and policies to enable science and engineering thrive. We represent over 115 scientific organisations including businesses, universities, professional bodies, and research charities as well as individual scientists and engineers. Collectively our [members](#) employ over 336,000 people in the UK, and our industry and charity members invest over £32bn a year globally in R&D. We are funded entirely by our members and receive no funding from government.