

2 June 2021

Submission to HM Treasury and HM Revenue & Customs consultation on R&D Tax Reliefs

Key points:

- R&D tax reliefs must form part of a suite of fiscal incentives to increase private investment in R&D and make the UK an attractive investment environment. The Government must do all it can to ensure that R&D tax reliefs drive as much additionality as possible.
- Measures to reduce bureaucracy, improve accessibility and increase visibility of available opportunities within the R&D tax reliefs schemes must all be considered in order to incentivise more business-driven R&D which is essential for achieving the Government's ambition of investing at least 2.4% of GDP in R&D by 2027 and for the UK's social and economic recovery following the COVID-19 pandemic. The value to a business of accessing R&D tax reliefs must both be easily visible and straightforward to realise in practice, recognising that many of the businesses that such reliefs seek to incentivise may have limited expertise and resources to navigate this landscape.
- Many businesses are globally mobile. The UK's R&D tax reliefs system must be internationally competitive and any changes to the system must be cognisant of the international landscape and the opportunities on offer to globally mobile businesses choosing where to locate and invest. Broadening the scope of qualifying expenditures, alongside targeted reliefs to encourage more R&D in specific regions and aligning with national priorities can be used to encourage more private investment.

Introduction:

1. The Royal Society is the National Academy of Science for the UK. It is a Fellowship of many of the world's most distinguished scientists working across a broad range of disciplines in academia and industry. The Society draws on the expertise of its Fellows and Foreign Members to provide independent and authoritative scientific advice to UK, European and international decision makers.
2. The Society's Science, Industry and Translation Committee seeks to connect academia, industry and government, drawing on the experience and expertise of our extensive network of researchers, innovators and entrepreneurs across the UK. We regularly convene leading scientists and industrialists and support Industry Fellows and Entrepreneurs in Residence working across the UK.
3. The Society welcomes the opportunity to respond to the HM Treasury and HM Revenue and Customs' consultation on R&D Tax Reliefs. While the Society does not undertake R&D activities itself, we have substantial knowledge of the UK's research and innovation ecosystem. This submission draws on this expertise to respond to specific questions in this consultation. To support our response, we have drawn from the expertise of the Society's Science, Industry and Translation Committee and Entrepreneurs in Residence, as well as speaking to others in the sector.

Question 2: Is there a case for consolidating the two schemes into one? What do you value about the design of the current schemes that might be lost if they were unified?

4. The two schemes offer different benefits, depending on the size of the company. SMEs operate with a much higher risk of market failure and therefore the SME tax relief scheme has additional benefits for companies which fall in this category. The scheme provides vital support and encouragement to SMEs by increasing their cash flow allowing them to take advantage of emerging opportunities. This must not be lost if the schemes were consolidated.

5. Any decision over consolidating the two schemes should also consider the user-experience. The value to a business of accessing R&D tax reliefs must both be easily visible and straightforward to realise in practice if it is going to act as an effective incentive.

Question 3: What do you think explains the difference in additionality between the two schemes? How could the schemes be improved to incentivise the R&D your business does or might consider doing? Can you give evidence to support your suggestions?

6. To maximise the benefits of the two schemes, the opportunities that they offer must be clear to businesses, and the schemes must be simple, accessible, and easy to use. Efforts should be made to reduce any bureaucratic burden associated with the claiming process to ensure that there are no barriers to businesses taking advantage of the schemes, particularly those that are small and do not have the resources or those that are new to R&D.

Question 9: Is there evidence to suggest areas of activity other than those currently covered by the R&D definition drive positive externalities which should be recognised by the tax system?

7. The UK's strength in science, research and innovation is a valuable economic and cultural asset. The estimated rates of return from investment in R&D typically range from 20-30%, with some estimates as high as 85%¹. While government support is critical, the UK will only maximise the benefits of increased public investment in R&D if it mobilises domestic and overseas business investment, which currently accounts for around two thirds of the UK's total R&D spend².
8. The UK Government has an ambition to become a science superpower and for overall investment in R&D to total at least 2.4% of gross domestic product (GDP) by 2027. It has made welcome commitments to increase public spending on R&D to help deliver this. However, the UK lags behind its global competitors when it comes to business investment in R&D³, which must also increase to hit the 2.4% target. Fiscal incentives such as R&D tax reliefs are one of the many levers Government has to help encourage businesses to invest in R&D and make the UK an attractive investment environment. The Government must ensure that the R&D tax reliefs schemes drive as much additionality as possible.
9. Evidence shows that while tax reliefs may not be the main consideration when businesses decide where to locate their R&D activities, they can play a major role when businesses need to decide between a small number of possible locations⁴. While it is valuable to review the effectiveness of R&D tax reliefs, it is important to consider that if the UK chose not to have an R&D tax reliefs scheme in place, attractive alternatives would be needed in order to maintain international competitiveness. The OECD currently ranks the UK's R&D tax relief scheme for SMEs as the 11th most generous of 44 countries. The UK's R&D tax relief scheme for large companies is currently ranked as only the 23rd most generous. Overall, taking into account both direct and indirect public funding for business R&D, the UK is the third most generous amongst OECD nations⁵. It would be valuable to reflect on the effectiveness of this suite of fiscal incentives as a whole to inform their future evolution.
10. It is valuable that all staff costs associated with the direction, design and financing of R&D activities are eligible for tax relief even if some of the work is carried out overseas, creating incentives to recruit and retain more highly skilled researchers and innovators in the UK. Our

¹ RAND Europe commissioned by The Royal Society. 2018 Evidence synthesis on measuring the distribution of benefits of research and innovation. See <https://royalsociety.org/-/media/policy/Publications/2018/fresh-case/evidence-synthesis-on-the-distribution-of-benefits-of-research-and-innovation.pdf> (accessed 24 May 2021).

² The Royal Society. 2020 Investing in UK R&D explainer. See <https://royalsociety.org/-/media/policy/projects/investing-in-uk-r-and-d/2020/Investing-in-UK-RD.pdf> (accessed 24 May 2021).

³ The Royal Society. 2020 Investing in UK R&D explainer (Figure 2). See <https://royalsociety.org/-/media/policy/projects/investing-in-uk-r-and-d/2020/Investing-in-UK-RD.pdf> (accessed 24 May 2021).

⁴ ABPI and WPI Strategy. 2021 Making the UK a science superpower: How enhanced R&D tax credits can support growth, jobs and levelling up. See <https://wpi-strategy.com/site/wp-content/uploads/2021/02/RD-tax-credits-WPI-Feb-2021.pdf> (accessed 24 May 2021).

⁵ OECD. 2021 Measuring Tax Support for R&D and Innovation. See <https://www.oecd.org/sti/rd-tax-stats.htm> (accessed 27 May 2021).

recent analysis of the research and technical workforce in the UK⁶ suggests that the UK will not have the workforce in place to deliver the government's ambitions without additional action, underlining the importance of incentives to recruit, train and retain talented researchers and innovators in the UK.

Question 10: Do you think R&D tax reliefs could better incentivise R&D with specific social value, for example developing green technology? Could R&D tax reliefs be used to disincentivise R&D in certain fields?

11. R&D tax reliefs could be used to incentivise R&D with specific social value by being aligned to the UK's national priorities such as the Government's target to reach net zero by 2050 or national crisis preparedness. The UK has committed to achieving net zero emissions to end its contribution to global warming. Action is required now to ensure that this goal is met. The UK's strength in R&D places it in a strong position to develop enabling technologies to deliver green growth and tax reliefs could be used as part of a suite of tools to deliver this.

Question 11: What is your experience of conducting R&D in different regions across the UK? How do R&D tax reliefs benefit these activities, and how could the offer be improved to better support these activities?

12. Currently over half of R&D investment is concentrated in just three regions: the East of England, London, and the South East. This concentration reflects a broader disparity in regional economic performance. Investment in R&D is one means to achieve productivity growth⁷. Investment by foreign-owned business makes up approximately 53% of UK private R&D expenditure in the UK⁸. However, this foreign investment is also largely concentrated in London⁹.
13. Regionally specific R&D tax reliefs could be used to encourage more R&D and foreign direct investment in lagging regions and help drive jobs and growth across the nation to facilitate the Government in delivering its levelling up pledge.
14. R&D tax reliefs must be part of a suite of fiscal incentives to increase private investment in R&D in different regions across the UK. These might include exploring additional investment incentives for businesses located in special enterprise zones etc.

Question 12: Are there any other areas of qualifying expenditure that should be included within the reliefs?

15. As stated in our letter to the HMT and HMRC consultation on the scope of qualifying expenditures for R&D tax credits¹⁰, we welcome the broadening of the scope of activities that qualify for tax reliefs. Reflecting current research practices will send a strong signal to potential investors that the UK is a world-class location for cutting-edge research. It will also support the scale-up of existing R&D activity.
16. Many impactful innovations are made at the cusp of one discipline as it interacts with another. Targeted expansion of the scope of R&D tax credits may provide an opportunity to incentivise

⁶ The Royal Society. 2021 The Research and Technical Workforce in the UK. See <https://royalsociety.org/topics-policy/publications/2021/research-and-technical-workforce-uk/> (accessed 24 May 2021).

⁷ HM Treasury. 2015 Fixing the foundations: Creating a more prosperous nation. See https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/443898/Productivity_Plan_web.pdf (accessed 24 May 2021).

⁸ ONS. 2019 Business Enterprise Research and Development, Dataset 23 EXPENDITURE ON R&D PERFORMED IN UK BUSINESSES, UK OR OVERSEAS OWNERSHIP. See <https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/datasets/ukbusinessenterpriseresearchanddevelopment> (accessed 24 May 2021).

⁹ Onward, Will Holloway. 2021 Firm Foundations: Levelling up inward investment. See <https://www.ukonward.com/wp-content/uploads/2021/05/Onward-Firm-Foundations-Levelling-up-inward-investment-1.pdf> (accessed 24 May 2021).

¹⁰ The Royal society. 2020 Consultation response: letter from Dame Sue Ion DBE FRS, Chair, Science, Industry and Translation Committee to The Rt Hon Steve Barclay MP, Chief Secretary to the Treasury in regard to the HMT and HMRC consultation on the scope of qualifying expenditures for R&D Tax Credits. See <https://royalsociety.org/media/policy/Publications/2020/20-10-13-letter-from-dame-sue-ion-to-chief-secretary-to-the-treasury.pdf> (accessed 24 May 2021).

greater innovation in and between new sectors. One area that should be considered is the inclusion of the arts, humanities and social sciences (AHSS). The OECD Frascati Manual definition of R&D recognises AHSS R&D activities; however, these activities are not generally recognised as a form of R&D in UK government fiscal policy¹¹. As a result, UK tax policy does not recognise the role that AHSS R&D plays in delivering innovation, productivity and growth, and the role that tax relief can play in incentivising R&D which has its origins in these disciplines.

17. In their recent policy briefing, the Creative Industries Policy & Evidence Centre highlighted the interconnectivity of STEM and AHSS R&D¹². It often co-exists in businesses, and they suggested that it is not useful to separate the two types of R&D activities. For example, the use of behavioural science, language and linguistics research is vital in AI, data science and cybersecurity R&D. Broadening the scope of R&D tax reliefs to support R&D in the AHSS sector could help drive innovation in this sector, which may itself stimulate more valuable interdisciplinary working.
18. Another area of qualifying expenditure that should be considered is capital expenditure. Economic analysis carried out by ABPI shows that including capital expenditure in R&D tax reliefs could raise private sector R&D across industry by £1.2 billion per year and GDP by £4 billion over ten years¹³.
19. Research commissioned by ABPI has also demonstrated that including capital in tax relief qualifying expenditures can support levelling up¹⁴. For example, the manufacturing sector make up the majority of R&D spend, and manufacturing R&D is more capital intensive than other sectors. Manufacturing firms tend to be located in lagging regions, so by broadening the scope of qualifying expenditures, an additional 12,200 R&D jobs could be created.
20. Additionally, the current system ensures that where staff are engaged wholly or partly in supporting R&D activities, their employment costs can also be claimed as “qualifying indirect activities”. This can include security staff for R&D facilities. Given that modern R&D business assets are increasingly digital in nature, it would be valuable to explore expanding the definition to include staff costs related to maintaining cybersecurity as qualifying indirect activities in a similar way.

For further information, please contact public.affairs@royalsociety.org

¹¹ E.g. Creative Industries Policy & Evidence Centre Led by Nesta. 2021 Business R&D in the arts, humanities and social sciences. See <https://www.pec.ac.uk/policy-briefings/business-r-d-in-the-arts-humanities-and-social-sciences> (accessed 24 May 2021).

¹² Creative Industries Policy & Evidence Centre Led by Nesta. 2021 Business R&D in the arts, humanities and social sciences. See <https://www.pec.ac.uk/policy-briefings/business-r-d-in-the-arts-humanities-and-social-sciences> (accessed 24 May 2021).

¹³ ABPI and WPI Strategy. 2021 Making the UK a science superpower: How enhanced R&D tax credits can support growth, jobs and levelling up. See <https://wpi-strategy.com/site/wp-content/uploads/2021/02/RD-tax-credits-WPI-Feb-2021.pdf> (accessed 24 May 2021).

¹⁴ ABPI and WPI Strategy. 2021 Making the UK a science superpower: How enhanced R&D tax credits can support growth, jobs and levelling up. See <https://wpi-strategy.com/site/wp-content/uploads/2021/02/RD-tax-credits-WPI-Feb-2021.pdf> (accessed 24 May 2021).