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Lord Jay of Ewelme EU Home Affairs Sub-Committee Chair House of Lords London SW1A OPW

Dear Chair,

Thank you for examining the issues surrounding the UK's current and future participation in European research programmes in your inquiry, *Brexit: EU student exchanges and funding for university research.*

The ability for the UK to freely collaborate with the EU and European partners has been greatly beneficial. Between 2007 and 2013, 18% of all money the UK received from the EU was for research & development¹. In 2012, 60% of the UK's internationally co-authored papers were published with European partners². The Prime Minister has stated her desire for the UK to fully associate with future EU research programmes post-Brexit³, given an appropriate financial contribution and level of influence. The Campaign for Science and Engineering (CaSE) believes that the UK should seek full participation to EU research programmes as part of an ambitious science and innovation agreement between the UK and EU. This means that the UK will retain access to EU funding and also reap the many intangible benefits of participation in these programmes, such as attracting and retaining talent, enhancing international collaborations with the EU and beyond in academia and industry⁴ and improving the quality and scope of research in areas such as medical research and other global challenges⁵. Below we consider the two programmes the Committee has raised in this inquiry in turn.

Horizon Europe

There are reciprocal benefits to the UK's participation in EU research programmes in terms of contribution and return, research excellence and the scale of participation. The UK has historically been a net contributor to the EU but is a net recipient in terms of EU research funding⁶. To date, the UK has secured over €5.1bn of Horizon 2020 funding since the inception of the programme in 2014, the second largest recipient of funding⁷. The provisional budget for Horizon Europe is due to be €100bn, roughly €30bn higher that the Horizon 2020 budget⁸. If the UK maintained the proportion of funding it has received in Horizon 2020⁹ in the next programme, the UK could expect to receive a total of €14.3bn in funding from Horizon Europe over seven years¹⁰.

¹ The role of EU membership in UK science and engineering research, CaSE and the EPC, 2015

² The role of the EU in international research collaboration and researcher mobility, The Royal Society, 2016

³ Prime Minster Speech, 21 March 2018

⁴ CaSE letter to Science Minister on intangible benefits of participation in EU research [Accessed 14/11/18]

⁵ The impact of collaboration, Cancer Research UK and Technopolis, 2017

⁶ UK research and the European Union; The role of the EU in funding UK research, Royal Society, 2015

⁷ Horizon 2020 projects and participations statistical database, European Commission [Accessed 14/11/18]

⁸ EU budget: Commission proposes most ambitious Research and Innovation programme yet, [Accessed 14/11/18]

⁹ Horizon 2020 projects and participations statistical database, European Commission [Accessed 14/11/18]

¹⁰ The UK has received 14.3% of Horizon 2020 funding to date.

Negotiations are ongoing as to the model of UK participation in Horizon Europe and it may be the case that the UK's financial returns are limited as a condition of participation¹¹. The UK is a major contributor to Horizon 2020 in expertise, budget contribution and scale. If the UK did not participate in Horizon Europe, there would have an impact on the expertise and funds available to the rest of the programmes' participants.

An ambitious science and innovation agreement between the UK the EU should include full participation in Horizon Europe. Horizon 2020 currently acts to encourage cooperative work between different institutions across the EEA and other participating countries, and serves to diversify the research funding streams available to UK researchers. Some disciplines such as Archaeology, Chemistry and IT are very reliant on EU funding, while EU grants account for at least 20% of research funding for 15 academic disciplines¹². Equally large grants for blue skies research funding in the UK are limited and the European Research Council has been an important source of such funding.

It could be possible to establish UK programmes that seek to replicate the functions of some EU funding programmes. Care should be taken to assess the differential effects of such a strategy on disciplines, institution types and geographical areas of the UK; and to fully assess the intangible benefits of EU programmes that would need to be replicated.

The UK Government and relevant stakeholders must continue to work hard in the coming months to influence the development of the Horizon Europe programme while the UK is represented in Brussels. The UK should be pragmatic about the cost of associating with Horizon Europe, and the EU should be pragmatic about the terms of association.

Erasmus+

The Erasmus+ programme provides an invaluable opportunity for students and staff to learn, teach or work across Europe. In 2015/16, 15,756 UK-based students spent time in Europe, in addition to 2,625 staff members¹³. The UK also receives a great number of students and staff from abroad, 31,362 students and 4,406 staff members in 2015/16¹⁴. The scheme also brings economic benefit to the UK, with domestic institutions receiving almost €230m for higher education exchanges between 2014 and early 2018 from Erasmus grants¹⁵. There is evidence to suggest that student mobility enhances outcomes, students who go abroad are 9% more likely to gain a 1st or 2:1 degree and 24% less likely to be unemployed¹⁶. Erasmus+ means this opportunity is not restricted to the most privileged.

The European Commission have adopted proposals for the next Erasmus programme for 2021-2027, doubling the budget of the current scheme to €30bn¹⁷. Article 16 of the proposal makes provisions for association for 'third countries' , which would allow the UK to take part in the scheme should it meet

¹¹ CaSE letter to Science Minister on intangible benefits of participation in EU research [Accessed 14/11/18]

¹² The role of EU funding in UK Research, Royal Society, 2017

¹³ Erasmus+ statistics, [Accessed 14/11/18]

¹⁴ Erasmus+ 2016 in numbers; United Kingdom factsheet, [Accessed 14/11/18]

¹⁵ Innovations to enhance the effectiveness and impact of Erasmus+ successor programme, Universities UK, 2018

¹⁶ Gone International: mobility works, Universities UK International, 2017

¹⁷ EU budget: Commission proposes to double funding for Erasmus programme, [Accessed 14/11/18]

¹⁸ Regulation of the European Parliament and of the Council establishing 'Erasmus', [Accessed 14/11/18]

appropriate criteria. With an expanding programme, the UK Government should take action to strike a deal with the EU to remain a part of the Erasmus+ scheme.

I hope the committee find this evidence helpful in their consideration of this inquiry. I would be pleased to expand on any of the points raised if invited to do so.

Yours sincerely

Dr Sarah Main

Executive Director, CaSE

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About CaSE

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 100 scientific organisations including businesses, universities, professional bodies, and research charities as well as individual scientists and engineers. Collectively our members employ over 380,000 people in the UK, and our industry and charity members invest around £43bn a year globally in R&D. We are funded entirely by our members and receive no funding from government.