

Written evidence submitted by the Campaign for Science and Engineering (FRE0094)

What are the key priorities of your members and your sector in general regarding science and research in the negotiations between the UK and the EU? Has the Covid-19 pandemic changed any of these priorities? What might be the consequences of a deal which does not meet these priorities?

The priority of CaSE, and the wider sector, remains an agreement between the EU and the UK that allows for full UK participation in Horizon Europe (“association”), when it begins in January 2021.

The search for Covid-19 treatments and vaccines has further highlighted how important international research collaborations are and how critical an association agreement is to maintaining and building these collaborations. Our ability to respond to outbreaks of new diseases like Covid-19 has been greatly improved by close scientific and clinical partnerships across Europe. For example, clinical trials are reliant on EU-UK collaboration, while close research partnerships continue to accelerate life-changing medical research.

To what extent did the UK Government consult your sector before publishing its negotiating aims and draft texts? How well does what the Government has proposed meet its needs? What further provisions would you have advised the Government to seek?

The Government published an R&D roadmap on 1 July 2020¹. In the roadmap the Government states “it is our ambition to fully associate to [Horizon Europe and Euratom R&T programmes] if we can agree a fair and balanced deal, but we will make a final decision once it is clear whether such terms can be reached.”

This is a very welcome statement that goes further than that stated in the Government's published negotiating aims that “the UK will consider a relationship in line with non-EU Member State participation with the following programmes: Horizon Europe, Euratom Research and Training, and Copernicus”².

However, the Government has not published a draft text for an agreement on the programmes³. This makes it difficult to judge how closely aligned the UK and EU positions are and ascertain the Government's exact position on this issue. Although the Government has since explained its rationale for not publishing a draft text⁴, its absence at the time of publication of the other draft texts meant that the Government's position was liable to misinterpretation by the research sector. It is vital that the Government communicates its

¹ <https://www.gov.uk/government/publications/uk-research-and-development-roadmap/uk-research-and-development-roadmap>

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/868874/The_Future_Relationship_with_the_EU.pdf

³ <https://www.gov.uk/government/publications/our-approach-to-the-future-relationship-with-the-eu>

⁴ <https://committees.parliament.uk/oralevidence/439/pdf/>

intentions clearly to the sector, as far as is possible, while the negotiations are ongoing. The statement in the R&D roadmap is helpful in this regard but any further communication would be welcome as collaborations begin to form over the next few months ahead of the Horizon Europe programme starting next year.

How do the UK and the EU's positions in the negotiations compare with regard to science and research? On which areas are the UK and EU's aims farthest apart? Where do their positions align? What is your assessment of the level of technical detail the negotiators have grappled with on this topic to date? Do you believe science and research has received sufficient focus thus far?

Both the EU and UK have expressed a strong desire for cooperation on research and science including UK participation in the Horizon Europe and Euratom R&T programmes. While UK participation is one of the negotiating workstreams there has been little detail forthcoming from either side about the progress of negotiations. Therefore, it is difficult to ascertain how well the negotiations are progressing or what level of detail has been considered.

Which EU agencies and programmes relevant to science and innovation are open to third country participation? What is the legal basis for this co-operation? Could you set out the role of the Court of Justice of the EU for any agencies you have highlighted? What is the level of involvement in decision-making for third countries in these EU agencies and programmes? Which of these agencies and programmes do you understand are being discussed in the negotiations between the UK and the EU? Which of these do you wish the UK to prioritise?

Some parts of Horizon 2020 are open to third country participation – it is not entirely clear yet if this will be the same for Horizon Europe and the UK's potential involvement in third country activities will depend on the negotiations. Some schemes have thus far only been open to full EU member states or fully associated countries and these are some of the most prestigious, such as Marie Curie-Sklodowska Actions, European Research Council (ERC) grants and the EIC Accelerator.

Does an agreement need to be reached on the EU's Multi-annual Financial Framework before any detailed discussions can take place about how much the UK would need to contribute to EU programmes or agencies? How is a third country's contribution to an EU agency or programme in the field of science and innovation calculated? Are any third countries currently receiving more in funding than they contribute? Are there any non-financial benefits for third countries that would appear to justify their status as net payers into the EU's science and research programmes?

How much the UK would need to contribute to participate in the programmes is subject to the negotiations. However, there are substantial 'intangible' benefits to participating in the programmes that could justify being net-contributors. Other countries, such as Norway, are net-contributors to the programme and believe this is financially justified. A report commissioned by the Norwegian Ministry of Education and Research found that participation in EU programmes "increased the quality of Norwegian [research and innovation] and Norwegian participants' competitiveness" as well as bringing significant

benefits that cannot be monetised, including international competition, collaboration, research capacity building and coordination to a greater extent than that from national research programmes⁵.

‘Intangible’ benefits are not directly measurable but are wide ranging and help to grow research in the UK. A letter from our chair, Professor Graeme Reid, to a previous Science Minister summarised the outcomes of a workshop co-hosted by CaSE and the Wellcome Trust on the intangible benefits of European Collaboration in September 2018⁶. The benefits identified included:

- Competition for EU funding raising standards and accelerates research progress.
- EU funding increases the diversity of the UK research base by complementing domestic spending.
- Participation in EU programmes provides access to advanced facilities and access to large data sets unavailable in the UK alone.
- Participation in EU programmes helps attract talented researchers to the UK. The pool of top quality researchers in the EU is clearly larger than that in the UK alone.
- Many research-intensive businesses operate across several EU member states and are attracted to EU research programmes with similar geographic coverage. Business participation in these collaborative programmes may improve access to markets elsewhere in the EU.
- Participants in EU programmes have opportunities to influence the future shape of EU research and innovation and sometimes have opportunities to influence technical standards that shape future regulation.

Collaboration between researchers in the EU and the UK also leads to more impactful research. A report called ‘The Impact of Collaboration’ has shown that in medical research, on average, papers with UK and EU co-authors receive more citations than papers with UK-only authors or EU-only authors⁷. Research by the Royal Society has also shown that research that is EU funded and/or has UK and EU authors leads to higher impact and these papers constitute a greater percentage of the most highly cited papers⁸.

Are there any lessons for the UK with regards to the EU-Switzerland relationship, and how this has affected Swiss participation in Horizon 2020?

In 2014, Switzerland voted in favour of tighter controls on immigration from the EU in a referendum. This was seen as incompatible with the EU’s principle of Freedom of Movement, and Switzerland were suspended from full participation in Horizon 2020 and Erasmus+. Therefore, Switzerland was only a partial participant in Horizon 2020 until they

⁵ https://khrono.no/files/2020/03/21/rapporten_deltakelse_euprogram.pdf

⁶ <http://www.sciencecampaign.org.uk/news-media/press-releases/case-letter-science-minister-intangible-benefits.html>

⁷ https://www.cancerresearchuk.org/sites/default/files/uk_and_eu_research_full_report_v6.pdf (see Figure 1, page 12)

⁸ <https://royalsociety.org/~media/policy/projects/eu-uk-funding/phase-2/EU-role-in-international-research-collaboration-and-researcher-mobility.pdf> (see table 4, page 21).

were granted full association as of 1 January 2017⁹ following the Swiss ratification of the protocol to extend EU-Swiss freedom of movement to Croatia.

It remains unclear how the UK's proposed immigration system, due to become active in January 2021, will affect the UK's ability to associate fully with Horizon Europe.

To what extent is science and research co-operation isolated from the wider political context of the negotiations? To what extent are any discussions on science and research related to other areas of the negotiations, such as regulatory standards or labour mobility, or the unilateral data adequacy assessments? What implications could these other provisions of a future UK/EU agreement have on your members and your sector in general?

Science and research co-operation is embedded within the overall negotiations. This means, despite the statements from both sides that they wish to secure an agreement on this area, that if the wider negotiations fail it is likely that an agreement on association will also not be reached. The failure of wider negotiations is probably a bigger risk to reaching an agreement on research co-operation than failing to agree on terms specifically for research.

Other areas of the negotiations that will have an impact on the research sector include mobility of researchers, which is critical to maintaining cross-Europe collaborations, and regulatory standards in areas like chemicals regulation, clinical trials, recognition of professional qualifications and transfer of data.

Could you sketch out a possible compromise between the UK and the EU on science and research and how it might be achieved?

CaSE, along with over 100 other UK and European organisations and individuals, has signed a statement from the Wellcome Trust setting out how a compromise in the negotiations could be reached¹⁰. The statement includes solutions to the following sticking points:

- Demonstrating UK commitment to the programme
- Ensuring financial contributions from the UK that are fair for both sides
- Overseeing the correct use of programme funds, including the UK accepting EU oversight
- Reciprocal agreements for the mobility of researchers
- Clarifying that research can be exploited outside the EU.

Based on the parameters set out by the UK and EU draft legal texts, could reaching an agreement with the EU restrict the UK's ability to pursue co-operation agreements covering science and research with third countries? If so, how? How might any future joint UK-US- EU multi-lateral collaboration work, or do differing regulatory and data standards prevent such collaboration? Is the UK pursuing co-operation arrangements with countries

⁹ <https://ec.europa.eu/research/index.cfm?pg=newsalert&year=2016&na=na-221216>

¹⁰ <https://www.sciencecampaign.org.uk/news-media/case-comment/securing-research-in-the-eu-uk-future-relationship.html>

that already have agreements with the EU on participation in science and research agencies and programmes? If so, what does these arrangements look like?

Not best placed to answer.

What would happen if agreement was not reached between the UK and the EU on science and research? What would be the international legal baseline they would fall back on? What would be the consequences of this for your members and your sector in general?

If no agreement was reached it would be very problematic for the sector. While the Government has said it will step in to provide alternatives¹¹, these are likely to take some time to put in place and build the success and prestige of the EU programmes. During this time collaborations are likely to be lost and the most talented scientists could move abroad to seek access to this type of funding.

Furthermore, a situation has developed where some fields of research are more dependent on EU funding than others, both for competitive research funding but also for facilities and networks. 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. 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. This means that the absence of an association agreement is likely to have uneven impacts on the research sector, damaging the diversity of funding available and the breadth of the sector, two of its unique strengths.

Is it clear what your members and employers in your sector must do to prepare for the end of the transition period? How much progress have been made on preparations so far? Do SMEs face any additional challenges?

One particular challenge that organisations have to overcome are changes to the UK's immigration policy from January 2021. Although this is not reliant on direct UK-EU negotiations, many SMEs will be forced to negotiate the UK's immigration system for the first time to employ staff from outside of the UK. Given the latest immigration policy plans were last updated in July 2020¹³, this gives businesses very little time to adjust to the changes that will occur. Those with large HR teams, or those who already employ workers from outside of the EEA on Tier 2 work visas will be better equipped to accommodate changes but will still face significant changes to recruitment practices.

What has been the recent experience of your sector with regard to access to projects with EU partners, applications to EU funding streams, retention of EU staff and students and other such EU science and research matters that should continue to be applicable during the transition period?

¹¹ <https://www.gov.uk/government/publications/uk-research-and-development-roadmap/uk-research-and-development-roadmap>

¹² [The role of EU funding in UK Research](#), Royal Society, 2017

¹³ <https://www.gov.uk/government/publications/uk-points-based-immigration-system-further-details-statement>

The Royal Society published a report in 2019¹⁴, showing that Brexit was already having a negative impact on UK science, including a reduction in the UK's share of EU grants and fewer scientists choosing to come to the UK.

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.

August 2020

¹⁴ <https://royalsociety.org/-/media/news/2019/brexit-uk-science-impact.pdf?la=en-GB&hash=BE140E62C37560A6A7523B7134949F11>



Committee on the Future Relationship with the European Union

House of Commons, London, SW1A 0AA

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23 July 2020

Dr Sarah Main
Executive Director
Campaign for Science and Engineering

Dear Dr Main,

The House of Commons Committee on the Future Relationship with the European Union is inquiring into the progress of the negotiations between the UK and the EU. Under normal circumstances, the Committee holds regular oral evidence sessions in Westminster. However, measures to prevent the spread of the coronavirus make this difficult.

The Committee is keen to gather as much evidence as possible to inform its deliberations so I am writing to you to ask whether you would be willing to help us with our work by making a written submission. We welcome general responses to our [call for evidence](#), which was published on 4 March. We also hope that you would be willing to answer some of the more specific questions set out below on issues that fall within your area of expertise. Submissions need not address every bullet point and can include other matters that you think are relevant to the negotiations and should be drawn to the attention of the Committee.

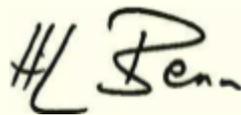
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- To what extent did the UK Government consult your sector before publishing its negotiating aims and draft texts? How well does what the Government has proposed meet its needs? What further provisions would you have advised the Government to seek?
- How do the UK and the EU's positions in the negotiations compare with regard to science and research? On which areas are the UK and EU's aims farthest apart? Where do their positions align? What is your assessment of the level of technical detail the negotiators have grappled with on this topic to date? Do you believe science and research has received sufficient focus thus far?
- Which EU agencies and programmes relevant to science and innovation are open to third country participation? What is the legal basis for this co-operation? Could you set out the role of the Court of Justice of the EU for any agencies you have highlighted? What is the level of involvement in decision-making for third countries in these EU agencies and programmes? Which of these agencies and programmes do you understand are being discussed in the negotiations between the UK and the EU? Which of these do you wish the UK to prioritise?
- Does an agreement need to be reached on the EU's Multi-annual Financial Framework before any detailed discussions can take place about how much the UK would need to contribute to EU programmes or agencies? How is a third country's contribution to an EU agency or programme in the field of science and innovation calculated? Are any third countries currently receiving more in funding than they contribute? Are there any non-

financial benefits for third countries that would appear to justify their status as net payers into the EU's science and research programmes?

- Are there any lessons for the UK with regards to the EU-Switzerland relationship, and how this has affected Swiss participation in Horizon 2020?
- To what extent is science and research co-operation isolated from the wider political context of the negotiations? To what extent are any discussions on science and research related to other areas of the negotiations, such as regulatory standards or labour mobility, or the unilateral data adequacy assessments? What implications could these other provisions of a future UK/EU agreement have on your members and your sector in general?
- Could you sketch out a possible compromise between the UK and the EU on science and research and how it might be achieved?
- Based on the parameters set out by the UK and EU draft legal texts, could reaching an agreement with the EU restrict the UK's ability to pursue co-operation agreements covering science and research with third countries? If so, how? How might any future joint UK-US-EU multi-lateral collaboration work, or do differing regulatory and data standards prevent such collaboration? Is the UK pursuing co-operation arrangements with countries that already have agreements with the EU on participation in science and research agencies and programmes? If so, what does these arrangements look like?
- What would happen if agreement was not reached between the UK and the EU on science and research? What would be the international legal baseline they would fall back on? What would be the consequences of this for your members and your sector in general?
- Is it clear what your members and employers in your sector must do to prepare for the end of the transition period? How much progress have been made on preparations so far? Do SMEs face any additional challenges?
- What has been the recent experience of your sector with regard to access to projects with EU partners, applications to EU funding streams, retention of EU staff and students and other such EU science and research matters that should continue to be applicable during the transition period?

The Committee staff will be happy to discuss the inquiry, any issues raised, or the process for submitting written evidence. You can contact them at freucom@parliament.uk.

Yours,

A handwritten signature in black ink, appearing to read 'H/ Benn'.

Hilary Benn
Chair of the Committee