

House of Commons Science and Technology Committee

Brexit, science and innovation

Second Report of Session 2017–19

Report, together with formal minutes relating to the report

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Science and Technology Committee

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Committee reports are published on the Committee's website at www.parliament.uk/science and in print by Order of the House.

Evidence relating to this report is published on the relevant <u>inquiry page</u> of the Committee's website.

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Summary

The Prime Minister has called for a "far-reaching pact" between the UK and the EU on science and innovation. The issues that such an agreement would need to cover—funding, people, regulation, collaboration—have been clear since our predecessor Committee reported on this in November 2016. Six months ago, the Government published its 'future partnership' paper on collaboration on science and innovation, referring to many of these issues, but the document does not contain a great deal of detail. Since then, a range of Ministerial speeches have reaffirmed the importance of ensuring science does not suffer as a result of Brexit. However, clarity over future access to funding, association with regulatory bodies, and immigration policies is required in order to provide certainty.

UK science is entering the Brexit process from a strong starting position. As the Government's Future Partnership paper notes, the UK is home to four of the world's top ten universities, and has more Nobel Laureates than any country outside the United States. The UK is second only to Germany in EU project participation, and assurances have been provided about participation in Horizon 2020, the EU's current flagship research programme. The Government has made science a key pillar of the Industrial Strategy, and has made announcements about EU student places up to 2019. The Government's £4.7bn increase to the UK's research and development budget by 2020/21 represents the biggest increase in public R&D investment since 1979, and the Government has made a commitment to increase R&D spending further as a proportion of GDP to 2.4% by 2027.

Co-operation on science and innovation is widely regarded as a 'win-win' for both the UK and the EU. Securing an early agreement on science and innovation would set a positive tone for other elements of the negotiations, but the Government needs to act swiftly. It cannot be taken for granted that the UK will retain its status as a science superpower. We welcome the Prime Minister's commitment to agreeing a science and innovation 'pact', but we are concerned that if there were to be a protracted delay in agreeing this, it would have unfortunate effects. Given the significance of science and innovation to the UK economy, reaching an agreement on this should now be as important to the Government as addressing the question of security. It must be stripped out from the wider trade negotiations for focused attention, rather than become a knock-on consequence of other negotiations or be traded against other aspects of a post-Brexit deal. We do not accept that 'nothing is agreed until everything is agreed' in this context. We recommend that the Government make drafting and negotiating a science and innovation agreement an urgent priority.

In particular, it is not sufficient for the Government to wait until September for the Migration Advisory Committee to report before Ministers address the 'people' aspects of the UK's future science and innovation relationship with the EU. The Migration Advisory Committee is due to report in September 2018, but this would result in current uncertainties continuing for another six months. This issue must be resolved as quickly as possible. The Government should ask the Migration Advisory Committee to bring

forward its conclusions in relation to the immigration arrangements needed to support science and innovation, and build these into a science and innovation agreement with the EU by October 2018, or earlier if possible.

Since the Referendum, the Government has given assurances to EU students entering UK universities in 2017 and 2018 that they would not see a change in their circumstances. Given that many universities will soon need to start distributing information to potential students about 2019 entrance procedures, it would be helpful if the Government could clarify the status of 2019 applicants as soon as possible

We are concerned that if such a people-centred science and innovation pact is negotiated later it risks being less comprehensive due to other negotiation priorities of the wider post-Brexit trade deal. Furthermore, if a pact is not agreed in late 2018, this will increase risks to retaining and attracting essential talent that our science and innovation sectors need.

The Government has avoided openly committing to negotiating 'associated country' status for the EU research and innovation successor programme to Horizon 2020. This uncertainty risks having a direct and imminent impact since, in some areas, funding bids for the successor programme will start to be developed in the coming weeks, and researchers and businesses need to know what the UK's intentions are.

With just one year remaining until Brexit, and a commonly-accepted aim of reaching a comprehensive Brexit deal by this autumn, the time for setting out broad aspirations has passed. The Government must now work quickly to secure a detailed agreement covering all of the issues important to science and innovation. With sufficient political will these problems can be overcome, but action must be taken now.

1 Introduction

Background

- 1. Our predecessor committee published its report on *Leaving the EU: Implications and opportunities for science and research* in November 2016. The report set out a number of priority issues for the science and research communities which the Government would need to address during the forthcoming Brexit negotiations:
 - Funding—in particular the need either to secure ongoing access to sources such
 as the Horizon 2020 Framework Programme and its successors, or to develop
 appropriate domestic funding mechanisms at a similar level if access is not
 negotiated;
 - People—specifically the attractiveness of the UK to EU researchers (as well as those further afield) as a place to live, work and study, and the need to provide guarantees for those already working here;
 - Collaboration, leadership and influence—for UK researchers to be part of multinational projects, and to continue to influence the EU's research agenda and strategic direction;
 - Regulation—ensuring that those regulations which facilitate research
 collaboration and access to the EU market for life science and other research
 outputs are retained, and those which hinder innovation are revised; and
 - Facilities—concerns about the ability of UK researchers to continue to access EU research facilities in other countries, and the need to protect the future of those that are currently hosted in the UK.²
- 2. In September 2017, the Government published its 'Future Partnership' paper on collaboration on science and innovation, which purports to set out "the UK's objectives for an ambitious science and innovation agreement with the EU".³ However—as Professor Chris Whitty, the Government's Interim Chief Scientific Adviser, told us—this document is "high on aspiration and a bit light on detail".⁴ The Government has also now established a 'High Level Stakeholder Working Group on EU Exit, Universities, Research and Innovation', with an emphasis on "considering all factors related to research and innovation that need to be taken into account as Government policy develops".⁵ Meanwhile, 'Phase 2' of the Brexit negotiations commenced in March 2018, and action must now be taken to address the concerns and opportunities outlined in our predecessor's report, with an adequate level of detail provided on the Government's intentions in this area.

¹ Science and Technology Committee, Seventh Report of Session 2016–17, Leaving the EU: implications and opportunities for science and research, HC 502

Science and Technology Committee, Seventh Report of Session 2016–17, <u>Leaving the EU: implications and opportunities for science and research</u>, HC 502, para 27

³ HM Government, Collaboration on science and innovation: future partnership paper (6 September 2017), para 3

⁴ Oral evidence taken on 17 October 2017, HC (2017–19) 437, Q11

Department for Business, Energy and Industrial Strategy, 'Terms of reference and membership: high level stakeholder working group on EU exit, universities, research and innovation', accessed 9 March 2018

3. UK science is entering the Brexit process from a strong starting position. As the Government's Future Partnership paper notes, the UK is home to four of the world's top ten universities, and has more Nobel Laureates than any country outside the United States.⁶ We were told that the UK is second only to Germany in EU project participation,⁷ and reminded that the Government's £4.7bn increase to the UK's research and development budget by 2020/21 represents the biggest increase in public R&D investment since 1979.⁸ The Government has also made a commitment to increase R&D spending as a proportion of GDP to 2.4% by 2027.⁹

Our inquiry

- 4. In January 2018 we called for written submissions to inform our work, and received over 80 responses. This material was used to inform a summit we held on Brexit, science and innovation at the Institution of Civil Engineers on 22 February, with over fifty representatives from the community. We invited the Minister for Universities, Science, Research and Innovation—Sam Gyimah MP—to address the summit. Having previously recommended that the Department for Exiting the European Union appoint its own Chief Scientific Advisor, we were pleased that the appointee to this new role (Chris Jones) was also able to attend to listen to the discussions. We are grateful to everyone who contributed to our work.
- 5. We held an oral evidence session with the Minister on 6 March to follow up on the issues explored at the summit and raised in written evidence. The Minister previewed a paper his department were due to publish later that day on the European Commission's consultation on the structure and priorities for Framework Programme 9. This was one of several developments in the last few days with a bearing on science and innovation after Brexit. A report published by the Wellcome Trust on the day of our summit suggested that there was scope for a dedicated science and innovation agreement to be drawn up as part of the Brexit negotiations:

Some of the solutions [The Wellcome Trust] propose will need to be included in a formal agreement, which could be a chapter within an EU–UK trade deal or a stand-alone research and innovation agreement. There are precedents for the latter—for example, Israel is associated to Horizon-2020 through a scientific and technological agreement with the EU, but also has an overarching association agreement with the EU.¹¹

The Prime Minister's Mansion House speech on 2 March reinforced the idea of such an agreement being negotiated, with reference to the Government's desire for a "far-reaching science and innovation pact". ¹² On 7 March the European Commission published its draft guidelines for the Brexit negotiations, ¹³ and on 6 March a draft European Parliament motion on the Brexit deal was published in the media. ¹⁴

- 6 HM Government, Collaboration on science and innovation: future partnership paper (6 September 2017), para 4
- 7 Q63 [Amanda Dickins]
- 8 Evidence taken on 17 October 2017, HC 438, Q30 [Jo Johnson]
- 9 HM Government, Collaboration on science and innovation: future partnership paper (6 September 2017), para 5
- 10 See Annex A for attendance list. A transcript from the summit has been published as BSI 85.
- 11 Wellcome Trust, Building a strong future for European Science: Brexit and beyond (February 2018), p7
- 12 Gov.uk, 'PM speech on our future economic partnership with the European Union', 2 March 2018
- 13 Council of the European Union, European Council (Art.50) (23 March 2018)—Draft guidelines (7 March 2018)
- 14 "May 'double cherry-picking' on Brexit, says leaked EU report", The Guardian, 6 March 2018

6. The need for clarity about the future shape of the UK's post-Brexit science and innovation relationship with the EU has been put into a stronger focus in the light of these developments, and we intend to visit Brussels in the coming months to follow up on many of the points raised through our work. Our report focuses on what steps the Government needs to take now to ensure that the UK retains and builds on its leadership position in science and innovation in the context of leaving the EU. In particular, we are publishing our report in order to influence the Government's approach to 'Phase 2' of the Brexit negotiations.

2 Priority areas for a science and innovation agreement

7. Our inquiry revisited many of the Brexit priority areas for science that were explored by our predecessor Committee—funding, people, regulation, and collaboration. There are many points that require Government attention, including the UK's relationship with Euratom, ¹⁵ the scope for implementing the new EU Clinical Trials Regulation, ¹⁶ datasharing, ¹⁷ and standards-setting. In this Report we have selected a number of priority areas to highlight for particular attention in a UK-EU science and innovation agreement.

Participation in Framework Programme 9

- 8. Horizon 2020 (or 'Framework programme 8') is the EU's flagship research funding programme. However, it is a time-limited programme, covering the EU's 2014–2020 budget cycle. The details of the successor programme—'Framework Programme 9' (FP9), covering 2021–2027—is due to be negotiated soon within the EU. As the UK is currently still a member of the EU it is able to feed in to the EU's current consultation on the form that FP9 should take, and the Government published its input to this process on 6 March. ¹⁸ It outlined nine features for the new programme that the Government identify as important to the UK. ¹⁹ These included a focus on 'excellence', and the need for FP9 to "stimulate the creation of markets of the future", through "support focused on innovation and cross-border-industry-driven collaborative research". It also highlighted the significance of UK SMEs being able to participate in FP9 in order to contribute to a focus on 'innovation'. This reflects the CBI's view that the EU's "long-term funding, collaborative opportunities and the ability to influence regulations are all valued by enterprises of all sizes". ²⁰
- 9. We are encouraged to see the Government providing input to the EU's consultation on the shape of Framework Programme 9, including the emphases it places on excellence and innovation. These are important features for the new programme, and the UK should continue to play a full part in shaping FP9 while it remains a member of the EU, not least to demonstrate the contribution that UK research and innovation can continue to make post-Brexit for the mutual benefit of the UK and EU members.
- 10. The Government's Future Partnership paper noted in September 2017 that the terms to be agreed in relation to future participation in FP9 would include "the size of any financial contribution, which the UK would need to weigh against other spending priorities". The Minister told us that there were two tests for the UK's participation in FP9—a focus on 'excellence', and 'value for money'. He told us that "we are not going

¹⁵ Qq98–101. See also, for instance, Business, Energy and Industrial Strategy Committee, Second Report of Session 2017–19, <u>Leaving the EU: implications for the civil nuclear sector</u>, HC 378, and <u>Euratom</u>, Commons Briefing Paper CBP8036.

¹⁶ See paras 27-30

See, for instance, Digital, Culture, Media and Sport Committee, Second Report of Session 2017–19, <u>The potential</u> impact of Brexit and the creative industries, tourism and the digital single market, HC 365, paras 105–120

Department for Business, Energy and Industrial Strategy, <u>UK position paper on the Ninth Framework Programme for Research and Innovation</u> (6 March 2018)

¹⁹ Q6

²⁰ CBI, Collaborate to innovate: Developing UK access to Framework Programme 9 (March 2018)

²¹ HM Government, Collaboration on science and innovation: future partnership paper (6 September 2017)

²² Q7

to participate at any price [...] It has to be a realistic deal that works for the UK".²³ We note that our predecessor Committee secured an assurance in 2017 from Jo Johnson MP, then Science Minister, that any future financial contribution to Framework Programme 9 would not be at the expense of the UK Science Budget (i.e. UK participation will not require money to be diverted away from the UK research councils).²⁴

- 11. The House of Lords Science and Technology Committee has noted previously that while the UK is a net contributor to the EU overall, it is a net receiver of EU funding for research. However, whether this will still be possible after Brexit may still be subject to negotiation: a European Parliament motion on the Brexit deal published online in March included a clause stating that the European Parliament could consider UK participation in the EU Research and Innovation Framework Programme "as a third country", "without permitting net transfer from the EU budget to the UK". This suggests that the EU might not be content for the UK to be an overall beneficiary from FP9 after Brexit. This would not be unusual; the Wellcome Trust's report quotes the Norwegian Research Council saying that "[this] is without any doubt our country's most important international partnership within research and innovation".
- 12. The European Scrutiny Committee noted earlier this month that discussion of future participation in FP9 will take place "in parallel to discussions on many other politically sensitive aspects of the post-Brexit EU-UK relationship", and that participation in FP9 "should therefore not be taken as a given". It called for the Government to confirm that it would "seek for the UK to become 'associated' (or the equivalent term under the future legal framework after 2020) with the next Framework Programme, or, if not, which other 'options for participating' the Government is exploring". Calls for the UK to achieve associated status in relation to FP9 have also been made recently by the CBI, ²⁹ the Wellcome Trust, ³⁰ and several others in written evidence to us. ³¹
- 13. The recently published European Commission draft negotiating guidelines restate that "nothing is agreed until everything is agreed".³² The draft guidelines also refer to the UK participating in research and innovation, subject to "the relevant conditions for the participation of *third countries* to be established in the corresponding programmes in the next Multiannual Financial Framework" (emphasis added).³³

²³ Transcript of the Science and Technology Committee Summit on 22 February 2018 (BSI 85) p52

²⁴ Oral evidence taken on 17 October 2017, HC (2017–19) 438, Q34

²⁵ House of Lords, EU membership and UK science, Second Report of the Science and Technology Committee, Session 2015–16, HL Paper 127, para 105

Motion for a resolution to wind up the debate on the framework of the future EU-UK relationship (5 March 2018), para 35

²⁷ Wellcome Trust, Building a strong future for European Science: Brexit and beyond (February 2018), p8

European Scrutiny Committee, EU Research Funding: Interim evaluation of Horizon 2020 (39425), 5271/18, COM(18) 2, para 10.12

²⁹ CBI, Collaborate to innovate: Developing UK access to Framework Programme 9 (March 2018), p1

³⁰ Wellcome Trust, Building a strong future for European Science: Brexit and beyond (February 2018), p1

See, for instance, Universities UK (BSI 19), University of Bristol (BSI 50) para 3.3ii, ELIXIR and ELIXIR UK (BSI 52), National Physical Laboratory (BSI 57), Samsung UK and Ireland (BSI 64) para 2.8, Johnson Matthey (BSI 79).

³² European Council, Article 50 (23 March 2018) Draft guidelines (7 March 2018), para 1

³³ European Council, Article 50 (23 March 2018) Draft guidelines (7 March 2018), para 8

- 14. The Minister emphasised that the Government's input to the FP9 consultation was "not a commitment to associate with FP9", but was "a positive vision of what would make the UK excited about FP9". Amanda Dickins, a Deputy Director in the Department of Business, Energy and Industrial Strategy, added that "At this point, it would be unwise to commit oneself to a programme that is yet to be finalised". 35
- 15. We are concerned that the Government's default position does not appear to be that the UK will participate in Framework Programme 9. While the details of the Programme have not yet been agreed, the Government should state clearly that it intends to participate unless there is a material unfavourable difference between the new Programme and its predecessor, and that the UK is ready to pay a fair 'entry fee' to secure this. If the price is too high, or the focus on excellence is diluted, a change in approach might be warranted, but the Government's explicitly stated assumption must be to participate fully. Specifically, the Government should state clearly in its response to this Report that it intends to secure Associated Country status for Framework Programme 9.

People

16. The Government's future partnership paper states that:

The UK and the EU must ensure that their research communities can continue to access the high-level skills that support innovation in science and technology. The Government has made clear that, although freedom of movement will cease to apply in the UK, the UK will continue to welcome the brightest and best, and as such, migration between the UK and the EU will continue after the UK leaves the EU. This Government wants the UK to remain a hub for international talent and its departure from the EU must be seen in this context.³⁶

17. The importance of 'people' to UK science was further underlined by several participants at our summit. Niall Dickson, representing the Brexit Health Alliance, emphasised that there was a need to ensure that scientists continue to see the UK as an attractive place to work:

We have always gone on the principle of immigration of "How do we keep people out of this country?" We need to turn that, in a sense, on its head here. Trying to develop a system that is based on access on one or other characteristics only—be it the skill level, the pay or the region that these people come from—we have to develop a much more flexible system that is based on the needs of this country, and the needs of this country in terms of science and technology have not been sufficiently recognised.

Similarly, Sir Venki Ramakrishnan, the President of the Royal Society, outlined why mobility was important for international competitiveness:

You may ask, "Why is mobility important at all? Why simply couldn't we grow our own talent and why do we need immigrants?" The reason is that

³⁴ Q6

³⁵ Q

³⁶ HM Government, Collaboration on science and innovation: future partnership paper (6 September 2017)

when you have mobility you have a much more rapid exchange of ideas and expertise. That allows you to remain at the cutting edge of, essentially, any science or technology. You cannot in isolation hope to be the leader for ever. You may be the leader temporarily, but then other people will have different ideas. If you do not know them, you are not in good communication and you do not have shared expertise; you have a problem. That is the reason why we must encourage mobility.

Regardless of how much talent we grow here, we will always need talent from abroad, because if you want to be the best in the world you have to recruit from the best. Sports teams know this. It is the same with science.³⁷

Immigration policy and visas

- 18. Naturally, the UK's approach to the question of 'people' is embodied in its post-Brexit immigration plans, and the details of various schemes. Our attention was drawn to several examples of where current policy is not serving science well.
- 19. In November 2017 the Government announced an additional 1,000 Tier 1 (Exceptional Talent) visas.³⁸ While this was a helpful measure for ensuring "the brightest and best" can work in the UK, many of the written submissions we received argued that it is not only the 'exceptional' researchers who the UK must work to retain, but the technicians, laboratory assistants and others who occupy lower profile but no less essential roles in the UK's science and innovation sectors. ³⁹ Such people would fall under 'Tier 2' (general) of the visa system, rather than benefit from the additional Tier 1 allocation. However, the Home Affairs Committee's report 'Home Office delivery of Brexit: immigration' noted that in January 2018 the cap on Tier 2 visas was reached for the second successive month, causing minimum salary requirements for a visa to jump from £30,000 to over £50,000 a year. ⁴⁰ This would be above the salary of most, if not all, the technicians working in the UK. Forty science and innovation organisations wrote to the Prime Minister earlier this month to highlight the harm being caused by the cap. They pointed out that two-thirds of roles in the 'shortage occupation' list were in science, technology and medicine, and called for such posts to be exempt from the restrictions. ⁴¹
- 20. There is also an issue about uncertainty surrounding the likely status of some EU researchers if they have not been able to demonstrate a sufficient employment record, perhaps if they have not always been employed because they have been students. The Government has said that EU nationals will be able to apply for 'settled status' if they have been resident in the UK for five years. The Home Affairs Committee noted in February 2018, however, a lack of clarity for those EU citizens who have completed five years of continuous residence in the UK but who are temporarily living outside the country. A particular issue is that to apply for permanent residency requires evidence of

³⁷ Transcript of the Science and Technology Committee Summit on 22 February 2018 (BSI 85) p24

³⁸ Gov.uk, 'Government doubles exceptional talent visa', 15 November 2017

³⁹ See, for instance, Royal Society (BSI 73) para 5

⁴⁰ Home Affairs Committee, Third Report of Session 2017–19, Home Office delivery of Brexit: immigration, HC 421, para 49

⁴¹ Campaign for Science and Engineering, 'CaSE calls on Prime Minister to revise current visa restrictions', 8 March 2018

'comprehensive sickness insurance' (CSI) for people who have not been in employment.⁴² The Science Minister explained that although EU directives require students to have CSI to qualify for permanent residence, the Government would "not require students living here to prove that they have held such insurance when they apply for settled status".⁴³ The Home Office, the Minister told us, is developing a 'Settlement Scheme' to be launched "in the autumn".⁴⁴

- 21. We heard that scientists were being disadvantaged by visa rules which did not recognise the legitimate need for researchers to spend time in other countries for field visits as part of their work. Naomi Weir, from the Campaign for Science and Engineering, explained that "rules currently preventing researchers wishing to obtain indefinite leave to remain from spending more than 180 days [outside the UK] in any 12-month period in the course of their work fail to recognise the nature of work in our sector. [...] This situation could easily be resolved by amending indefinite leave to remain rules to permit research activity overseas as part of their rules".
- 22. The Science Minister told us that he envisaged that the science and innovation 'pact' that the Prime Minister referred to in her recent Mansion House speech would address issues of immigration policy. He was "very aware" that "it is not just about the framework programmes, but about people. In fact, getting the right people—the brightest and best minds—here is as critical as participating in programmes if we are to succeed in science and innovation". However, he told us that that the Migration Advisory Committee (MAC) was "looking at the evidence on international students, academics coming here", and that BEIS had asked the MAC to report on how the UK's immigration system should be aligned with the Government's Industrial Strategy. He confirmed that that the MAC was due to report on these points by September 2018.
- 23. For the UK to achieve the Government's stated goal of continuing to welcome the brightest and the best, it is imperative that the migration system for scientists, researchers and scientific technicians recognises the need for mobility, including the benefits for scientists moving between research organisations and taking part in collaborative visits A EU-UK science and innovation 'pact' must encompass issues relating to 'people'. A pact that does not address this fully would be pointless. The Migration Advisory Committee is due to report in September 2018, but the current uncertainty cannot be allowed to continue for another six months. We recommend that the Government ask the Migration Advisory Committee to bring forward its conclusions in relation to the immigration arrangements needed to support science and innovation, and build these into a science and innovation agreement with the EU by October 2018 or earlier if possible. We are concerned that if a people-centred science and innovation pact is negotiated later it risks being less comprehensive due to other

⁴² Home Affairs Committee, Third Report of Session 2017–19, Home Office delivery of Brexit: immigration, HC 421,

⁴³ Department for Business, Energy and Industrial Strategy (BSI 86)

⁴⁴ Department for Business, Energy and Industrial Strategy (BSI 86)

⁴⁵ Transcript of the Science and Technology Committee Summit on 22 February 2018 (BSI 85) p13

⁴⁶ Q27

⁴⁷ Q28

⁴⁸ Q36

⁴⁹ Q38

negotiation priorities of the wider post-Brexit trade deal. Furthermore, if a pact is not agreed in late 2018 this will increase risks to retaining and attracting the essential talent that our science and innovation sectors need.

Regulation

- 24. UCL noted that the Government's Future Partnership Paper "gives little detail on regulation", and urged the Government to "consider the opportunities for the UK to become a global leader in scientific regulation, particularly in areas such as animal research, biomedical sciences, clinical trials, data protection, and research ethics, using regulation to advance public dialogue and engagement on complex issues around science and regulation, and to drive scientific progress". 50
- 25. The Prime Minister's Florence speech in September set out what has since been referred to as the 'three baskets' metaphor for assessing where UK regulation should diverge from the EU and where it should be aligned:

In any trading relationship, both sides have to agree on a set of rules which govern how each side behaves. So we will need to discuss with our European partners new ways of managing our interdependence and our differences, in the context of our shared values.

There will be areas of policy and regulation which are outside the scope of our trade and economic relations where this should be straightforward.

There will be areas which do affect our economic relations where we and our European friends may have different goals; or where we share the same goals but want to achieve them through different means.

And there will be areas where we want to achieve the same goals in the same ways, because it makes sense for our economies.⁵¹

26. Given the breadth of regulations that are relevant to the science and innovation community it was no surprise to us that there were a range of views expressed in evidence on the merits of alignment or divergence in different cases. For instance, the CBI emphasised that "shared regulatory frameworks are the grease that keeps good trading relationships moving",⁵² and the Wellcome Sanger Institute argued that "divorcing the UK from EU legislation risks poorer EU legislation and leaves the UK outside the system, or forced to accommodate weak regulation".⁵³ The Institute suggested that:

It is important to recognise there is a difference between gold-plating regulation and diverging from it. Many of the suggestions around divergence come coupled with complaints about the cumbersome nature of EU regulation, with the implication of deregulating. Deregulation and divergence should be viewed with great caution.⁵⁴

⁵⁰ UCL (BSI 60) para 12

⁵¹ Gov.uk, 'PM's Florence speech: a new era of cooperation and partnership between the UK and the EU', 22 September 2017

⁵² CBI (BSI 42)

⁵³ Wellcome Sanger Institute (BSI 5) para 9

⁵⁴ Wellcome Sanger Institute (BSI 5) para 10

On the other hand, the Agricultural Biotechnology Council had concerns about the 'close regulatory alignment' sought in the Government's position paper in the context of agricultural biotech, since the EU regulatory regime "has not been based on science and has proved to be a barrier to innovation". ⁵⁵

27. Reflecting these differences, the Royal Society told us that there was a need for careful case-by-case assessment of regulations in the context of science:

In the long-term, it is critical that we identify areas of regulation where continued alignment with EU rules is most important for the UK to collaborate and trade, while also recognising the opportunities to develop new regulatory approaches. In the short term, mechanisms should be put in place to ensure that the impact of any Regulations made as the UK departs from the EU are thoroughly scrutinised, supported by a transparent and thorough assessment of the possible effects on research.⁵⁶

- 28. A particular example of where clarity over future regulation in the UK highlighted during our inquiry relates to clinical trials. Our predecessor Committee's report on EU regulation of the life sciences noted that a new Clinical Trials Regulation⁵⁷ had been developed by the EU, to replace an existing Clinical Trials Directive dating from 2001. The existing Directive had been highly criticised by the community, as it had led to "increased burden on academic researchers and a drop in clinical trials conducted in the UK and the EU".⁵⁸ The new Regulation, however, has attracted much more support from the community, and the UK has contributed to its development.⁵⁹ We were told that it was important that the UK aligned with the Regulation once its provisions apply, and worked to secure access to the relevant EU infrastructure that would allow participation in clinical trials to continue, such as the central portal and database being created as part of the new Regulation.⁶⁰
- 29. In September 2017 we asked DExEU to clarify the UK's position in relation to the new Clinical Trials Regulation, since the new Regulation is not expected to be in force until after Brexit. Robin Walker MP explained then that this means that future alignment will be "subject to negotiations":

The general approach taken in the Repeal Bill (formally known as the European Union (Withdrawal) Bill) is that EU law which applies directly in the UK legal system immediately before exit will be converted into domestic law after exit. [...]

Under the Bill, direct EU legislation is only converted and incorporated into domestic law "so far as operative immediately before exit day". [...] We are aware that the implementation of the EU Clinical Trials Regulation has been postponed [...] the new Regulation may take effect after we leave the

⁵⁵ Agricultural Biotechnology Council (BSI 15)

⁵⁶ Royal Society (BSI 73) para 29

⁵⁷ Council Regulation (EC) No.536/2014

⁵⁸ Science and Technology Committee, First Report of Session 2016–17, <u>EU regulation of the life sciences</u>, HC 158, para 23

⁵⁹ House of Lords, EU membership and UK science, Second Report of the Science and Technology Committee, Session 2015–16, HL Paper 127, para 24

Association of Medical Research Charities (<u>BIS 32</u>). See also <u>Regulating clinical trials</u>, POSTnote 561, Parliamentary Office of Science and Technology, 2 October 2017

EU and therefore will not be covered by the Repeal Bill and so our future alignment with the new EU Clinical Trials Regulation will be subject to negotiations.

However, as the Secretaries of State for Health and for Business, Energy and Industrial Strategy jointly set out in an open letter in the Financial Times on 5 July, the UK is fully committed to continuing the close working relationship we enjoy with our European partners across the field of medicines regulation that will include any future EU regime on clinical trials.⁶¹

- 30. The Academy of Medical Sciences told us that "Harmonisation to this regulation should be prioritised by the UK Government and urgent clarity is required on how the UK will implement the regulation during the transition period". However, the Science Minister's response was simply that "the current regulatory approval legislation [i.e. reflecting the existing Clinical Trials *Directive*, which will be transposed into UK law] will stay in place until such time as any changes are needed so there will be no interruption in UK clinical trials approval". This may well be the case in the period immediately after Brexit and before the Regulation applies in the EU, but his statement does not provide any further clarity on what position the UK will take after that point, or reflect the need to negotiate access to the infrastructure necessary to continue to participate in clinical trials from then on.
- 31. The Science Minister's response to us on clinical trials regulation is unsatisfactory. His position that "the current regulatory approval legislation will stay in place until such time as any changes are needed" ignores the fact that work is needed now to ensure that the UK can participate in and lead clinical trials in the future. We recommend that the Government revisit this statement in its response to our report.

Regulatory bodies

32. The Prime Minister's Mansion House speech in March suggested that the Government was exploring associate membership of regulatory bodies such as the European Medicines Agency:

We will also want to explore with the EU, the terms on which the UK could remain part of EU agencies such as those that are critical for the chemicals, medicines and aerospace industries: the European Medicines Agency, the European Chemicals Agency, and the European Aviation Safety Agency.

We would, of course, accept that this would mean abiding by the rules of those agencies and making an appropriate financial contribution. I want to explain what I believe the benefits of this approach could be, both for us and the EU.

First, associate membership of these agencies is the only way to meet our objective of ensuring that these products only need to undergo one series of approvals, in one country.

⁶¹ Correspondence from Robin Walker MP dated 21 September 2017

⁶² Academy of Medical Sciences (BSI 43)

⁶³ Department for Business, Energy and Industrial Strategy (BSI 86)

Second, these agencies have a critical role in setting and enforcing relevant rules. And if we were able to negotiate associate membership we would be able to ensure that we could continue to provide our technical expertise.

Third, associate membership could permit UK firms to resolve certain challenges related to the agencies through UK courts rather than the ECJ.⁶⁴

On the European Medicines Agency, the Prime Minister said that membership would mean:

investment in new innovative medicines continuing in the UK, and it would mean these medicines getting to patients faster as firms prioritise larger markets when they start the lengthy process of seeking authorisations. But it would also be good for the EU because the UK regulator assesses more new medicines than any other member state. And the EU would continue to access the expertise of the UK's world-leading universities.⁶⁵

33. It remains to be seen whether the ambition of 'association' will be realised through the negotiations. In the draft negotiating guidelines published by the Council of the European Union on 7 March, the Council stated that "the Union will preserve its autonomy as regards its decision-making, which excludes participation of the United Kingdom *as a third-country* to EU Institutions, agencies or bodies" (emphasis added). 66 This suggests that there may still be some doubt that a formal 'Associate Member' status will be possible in this context, with the assumption that the UK will be a 'Third Country' instead.

⁶⁴ Gov.uk, 'PM speech on our future economic partnership with the European Union', 2 March 2018

⁶⁵ Gov.uk, 'PM speech on our future economic partnership with the European Union', 2 March 2018

⁶⁶ Council of the European Union, European Council (Art.50) (23 March 2018)—Draft guidelines (7 March 2018)

3 The urgent need for action

34. A recurring theme arising from our summit and the written evidence we received was the need for urgency in tackling many of the issues raised in this report (and others not set out in detail here). In practice, there was a significant overlap in the themes identified by our predecessor Committee and those highlighted to us in written evidence and at our summit, but with an added emphasis on the need for timely action. For instance, Andrew Mackenzie, representing the Physiological Society warned us that:

A lot of the time the rhetoric from some of the politicians is around, "This is a problem that we will deal with when the final solution is arrived at post-Brexit and it will all be fine". The reality is that the uncertainty is causing problems right now today, and our members tell us that people are not taking up job offers now.⁶⁷

Naomi Weir, representing the Campaign for Science and Engineering, made a similar plea for timely action on immigration and visa policies:

On timings, this is urgent. Messaging and domestic [immigration/visa] policies must be and can be unilaterally changed. These must happen soon because the messages are being watched by an international audience and we cannot afford to continue in the way we have been so far.⁶⁸

35. Professor Michael Arthur, representing the Russell Group EU Working Group, provided a striking insight into the effects of uncertainty over future immigration policy that UCL had begun to see, providing further evidence of the need for urgency:

We advertise a series of excellence fellowships, mainly in biomedical sciences. Each year we usually have over 100 applicants. On average, we would expect 30% or so of those applicants to be from other European institutions. This year we dropped from 30% to zero applications, something that quite shocked me.⁶⁹

Similarly, the Association for Innovation, Research and Technology Organisations (AIRTO) told us that there were already measurable effects on recruitment of EU citizens:

AIRTO members are seeing their permanent EU employees resigning and returning to their home country or to other EU countries. This is occurring at a slightly higher level than observed prior to the referendum vote in 2016, but it is compounded by a significant drop in applications from non-UK EU nationals for permanent employment vacancies, which as a consequence are becoming harder to fill.⁷⁰

36. On the issue of urgency in relation to funding, the University of Bristol told us that "uncertainty around FP9 participation continues, and therefore a push for an agreement which includes provision for full access to FP9 as an Associated Country should be prioritised in the next phases of the negotiations".⁷¹

⁶⁷ Transcript of the Science and Technology Committee Summit on 22 February 2018 (BSI 85) p27

⁶⁸ Transcript of the Science and Technology Committee Summit on 22 February 2018 (BSI 85) p14

⁶⁹ Transcript of the Science and Technology Committee Summit on 22 February 2018 (BSI 85) p26

⁷⁰ AIRTO (BSI 45) p2

⁷¹ University of Bristol (BSI 50) para 3.3

37. Professor Alistair Buchan, representing the University of Oxford at our summit, believed that science should have the same profile as the issue of the Northern Ireland border in terms of its significance to the Brexit discussions:

We need a strategy and one with intent. We need to make sure that we become an Irish/Northern Ireland border problem. We need to explain that the infrastructure, the networking, going backwards and forwards across Europe, is exactly the same as how Ireland has worked since the Good Friday accord. We need the research collaboration in Europe to be crystallised as a need for Government to address in the same way that the border is addressed, with a tight deadline.⁷²

- 38. There is a wide range of organisations that the Government will need to interact with in order to secure such a comprehensive science and innovation agreement, and the scale of the task should not be underestimated. The main agencies and regulatory bodies are summarised in Annex B.
- 39. Given the risk of an extended period of uncertainty, we asked the Science Minister whether the Government was acting with sufficient urgency to negotiate such a 'pact'. He told us that:

Having spoken to my counterparts in the EU—a lot of EU Science Ministers—we all take the view that science is one area that is a win-win for us and them. If it were left to me alone, as the Science Minister, this would be one area on which we could come to an agreement very early in the process, but it is part of a much bigger negotiation [...] notwithstanding that, there is a sense of urgency on the part of the Government.⁷³

Nevertheless, he added that:

The timescale will be driven by cross-Government decisions, rather than what I specifically want [...] It is not how quickly we can land a deal and also not just a unilateral decision. The Commission also has to want to do a deal in the terms that we want.⁷⁴

40. Producing an early agreement on science and innovation would set a positive tone for the rest of the Brexit negotiations, and should be a clear 'win-win' for both the UK and the EU. We welcome the Prime Minister's commitment to agreeing "a far-reaching science and innovation pact", but we are concerned that delays in agreeing this will undermine the UK's current position as a science superpower. Given the significance of science and innovation to the UK economy, reaching an agreement on this should now be as important to the Government as the question of security. It must be stripped out from the wider trade negotiations for focused attention, rather than become a knock-on consequence of other negotiations or traded against other aspects of a post-Brexit deal. We do not accept that 'nothing is agreed until everything is agreed' in this context. We recommend that the Government make drafting and negotiating a science and innovation agreement an urgent priority. Our report sets out the key issues that such an agreement should cover.

⁷² Transcript of the Science and Technology Committee Summit on 22 February 2018 (BSI 85) p71

⁷³ Qq4-5

⁷⁴ Q19

Conclusions and recommendations

- 1. We are encouraged to see the Government providing input to the EU's consultation on the shape of Framework Programme 9, including the emphases it places on excellence and innovation. These are important features for the new programme, and the UK should continue to play a full part in shaping FP9 while it remains a member of the EU, not least to demonstrate the contribution that UK research and innovation can continue to make post-Brexit for the mutual benefit of the UK and EU members. (Paragraph 9)
- 2. We are concerned that the Government's default position does not appear to be that the UK will participate in Framework Programme 9. While the details of the Programme have not yet been agreed, the Government should state clearly that it intends to participate unless there is a material unfavourable difference between the new Programme and its predecessor, and that the UK is ready to pay a fair 'entry fee' to secure this. If the price is too high, or the focus on excellence is diluted, a change in approach might be warranted, but the Government's explicitly stated assumption must be to participate fully. Specifically, the Government should state clearly in its response to this Report that it intends to secure Associated Country status for Framework Programme 9. (Paragraph 15)
- 3. For the UK to achieve the Government's stated goal of continuing to welcome the brightest and the best, it is imperative that the migration system for scientists, researchers and scientific technicians recognises the need for mobility, including the benefits for scientists moving between research organisations and taking part in collaborative visits A EU-UK science and innovation 'pact' must encompass issues relating to 'people'. A pact that does not address this fully would be pointless. The Migration Advisory Committee is due to report in September 2018, but the current uncertainty cannot be allowed to continue for another six months. We recommend that the Government ask the Migration Advisory Committee to bring forward its conclusions in relation to the immigration arrangements needed to support science and innovation, and build these into a science and innovation agreement with the EU by October 2018 or earlier if possible. We are concerned that if a people-centred science and innovation pact is negotiated later it risks being less comprehensive due to other negotiation priorities of the wider post-Brexit trade deal. Furthermore, if a pact is not agreed in late 2018 this will increase risks to retaining and attracting the essential talent that our science and innovation sectors need. (Paragraph 23)
- 4. The Science Minister's response to us on clinical trials regulation is unsatisfactory. His position that "the current regulatory approval legislation will stay in place until such time as any changes are needed" ignores the fact that work is needed now to ensure that the UK can participate in and lead clinical trials in the future. We recommend that the Government revisit this statement in its response to our report. (Paragraph 31)
- 5. Producing an early agreement on science and innovation would set a positive tone for the rest of the Brexit negotiations, and should be a clear 'win-win' for both the UK and the EU. We welcome the Prime Minister's commitment to agreeing "a farreaching science and innovation pact", but we are concerned that delays in agreeing this will undermine the UK's current position as a science superpower. *Given the*

significance of science and innovation to the UK economy, reaching an agreement on this should now be as important to the Government as the question of security. It must be stripped out from the wider trade negotiations for focused attention, rather than become a knock-on consequence of other negotiations or traded against other aspects of a post-Brexit deal. We do not accept that 'nothing is agreed until everything is agreed' in this context. We recommend that the Government make drafting and negotiating a science and innovation agreement an urgent priority. Our report sets out the key issues that such an agreement should cover. (Paragraph 40)

Annex A: List of summit participants, 22 February 2018

ZZ TEDITIALY ZO	
Representative	Organisation
Dr Gillies O'Bryan-Tear	Academy of Medical Royal Colleges
Professor Anne Dell	Academy of Medical Sciences and Trustee, Biochemical Society
Professor Richard Brook	AIRTO (Association for Innovation, Research and Technology Organisations)
Professor Johan Schot	Association for Studies in Innovation Science and Technology
Eleanor Charsley	Association of British Healthcare Industries
Dr Cat Ball	Association of Medical Research Charities
Elliot Dunster	Association of the British Pharmaceutical Industry
Laura Collister	Bio Industry Association
Niall Dickson	Brexit Health Alliance
Professor Dame Helen Wallace	British Academy
Dr Anna Zecharia	British Pharmacological Society
Jo Revill	British Society for Immunology
Naomi Weir	Campaign for Science and Engineering
Chris Jones	Chief Scientific Adviser, Department for Exiting the EU
Rob Davies	CLOSER, the UK Longitudinal Studies Consortium
Felicity Burch	Confederation of British Industry
Chris McDonald	Federation of Small Businesses
Professor Gerry McKenna	Heads of University Centres of Biomedical Sciences
Kevin Baughan	Innovate UK
Professor Mark Tooley	Institute of Physics and Engineering in Medicine
Professor Geoffrey Maitland	Institution of Chemical Engineers and the Royal Academy of Engineers
Professor Lord Robert Mair	Institution of Civil Engineers
Christopher J Darby	John Innes Centre
Professor Paul Kellam	Microbiology Society
Dr Greg Walker	MillionPlus, The Association for Modern Universities
Sam Gyimah MP	Minister for Universities, Science, Research and Innovation
Caroline Pritchard	National Measurement Laboratory
Professor Russell Wynn	National Oceanography Centre
Jen Rae	Nesta
Sue Ferns	Prospect
Dr David Rhodes	Public Health England
Mr Mike Bright	Research Councils UK
Dr Claire Thompson	Royal Pharmaceutical Society
Mark Downs	Royal Society of Biology
Dr Stephen Benn	Royal Society of Biology
Jo Reynolds	Royal Society of Chemistry
Professor David Cole-Hamilton	Royal Society of Edinburgh

Representative	Organisation
lain Wilton	Royal Statistical Society
Professor Michael Arthur	Russell Group EU Advisory Group
Sharon Todd	SCI
Dr Estrella Luna Diez	Spanish Researchers in the United Kingdom (SRUK/CERU)
Dariel Burdass	The Physiological Society
Dr Robert Massey	The Royal Astronomical Society
Sir Venki Ramakrishnan	The Royal Society
Dr Marina Pais	The Sainsbury Laboratory, Norwich Research Park
Professor Ian Chapman	UK Atomic Energy Authority
Professor Ian Haines	UK Deans of Science
Professor Julia Buckingham	Universities UK
Professor Graeme Reid	University College London
Professor Alastair Buchan	University of Oxford
Ed Whiting	Wellcome Trust

Annex B: Main EU agencies related to science and technology

Table 1: Main EU agencies related to science and technology

Agency	Role	Arrangements for third countries	Jurisdiction or complaints mechanism
European Medicines Agency (EMA)	Provides market authorisation for medicines and medical devices	No provisions for third party participation, but representatives of international organisations can participate	CJEU
European Chemicals Agency (ECHA)	Provides market authorisation for chemicals and products containing chemicals	Third countries can be invited to participate	Board of Appeal and CJEU
European Intellectual Property Office (EUIPO)	Manages the EU trademark and registered Community design; also works with IP offices of the EU Member States and international partners to standardise registration for trademarks and designs globally	Third countries can be observers and co- operate, but cannot become members	European Anti- Fraud Office (OLAF); Board of Appeal and CJEU jurisdiction
Euratom Supply Agency (ESA)	Concludes supply contracts for nuclear materials for civil nuclear energy, and monitors medical radioisotope markets	No provision for third country participation	CJEU
European Research Council Executive Agency (ERCEA)	Implements European Research Council strategy and awards some Horizon 2020 grants	Representatives "should collectively reflect the full breadth of the research community across Europe", but no clear ban on non- Member states	n/a

Agency	Role	Arrangements for third countries	Jurisdiction or complaints mechanism
Research Executive Agency	Manages and awards some Horizon 2020 grants	No provision for third country membership	Under a Memorandum of Understanding between the Research Executive Agency and various Commission DGs: Commission, OLAF, CJEU
European Institute of Innovation and Technology (EIT)	Brings together higher education institutions, research labs and businesses to develop new products and start new companies	Third countries can participate, subject to agreement with EU in relevant areas	OLAF; Court of Auditors; CJEU
Innovation and Networks Executive Agency	Provides expertise and programme management to infrastructure, research and innovation projects in the fields of transport, energy and telecommunications	No provision for 3rd country membership	n/a
European Environment Agency (EEA)	Provides independent information on the environment to policymakers and the public	No provision for 3rd party involvement	CJEU
Office of the Body of European Regulators for Electronic Communications (BEREC)	Develops guidelines and advises national regulatory authorities and the European Commission on telecommunications regulations	Observer status granted for EEA states and candidate accession states	CJEU
Agency for the Cooperation of Energy Regulators (ACER)	Complements and coordinates work of national energy regulators at EU level, and works towards the completion of the Internal Energy Market	Third countries can participate, subject to agreement with EU in relevant areas	Board of Appeal and CJEU
European Global Navigation Satellite Systems Agency (GSA)	Oversees Galileo satellite services provision	Third countries can participate	CJEU

Agency	Role	Arrangements for third countries	Jurisdiction or complaints mechanism
European Centre for Disease Prevention and Control (ECDC)	Gathers, analyses and disseminates data on over 50 communicable diseases and conditions	Third countries can participate, subject to equivalent regulations	CJEU
European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)	Collects, analyses and disseminates evidence-based information on drugs and drug addiction	emcDDA co- operates with candidate and potential candidate countries to the EU	CJEU
Innovative Medicines Initiative (IMI)	Brings together universities, the pharmaceutical industry, SMEs, patient organisations and regulators to accelerate development of, and access to, new treatments	Countries associated to Horizon 2020 represented on States Representatives Group	CJEU
European Union Satellite Centre (EU SatCen)	Provides geospatial intelligence products and services, primarily through the analysis of data from Earth observation satellites	Third countries can co-operate	CJEU
European Union Agency for Network and Information Security (ENISA)	EU cybersecurity agency setting standards, providing analysis and advice, and co-ordinating preparation exercises	Third countries can participate, subject to equivalent regulations	CJEU
European Food Safety Authority (EFSA)	Produces scientific advice on food safety, nutrition, and animal and plant health, to form the basis for EU policies and legislation	Third countries can participate, subject to equivalent regulations	CJEU
Community Plant Variety Office	Provides intellectual property rights for breeders of new plant varieties, and provides policy guidance and assistance in the exercise of these rights	Observer states can be invited	Board of Appeal and CJEU
European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)	Provides Europe's contribution to ITER, an international research effort for nuclear fusion	Third countries can participate, subject to co-operation agreement with Euratom	Commission, Court of Auditors and OLAF; arbitration tribunal; CJEU

Agency	Role	Arrangements for third countries	Jurisdiction or complaints mechanism
Fuel Cells and Hydrogen Joint Undertaking (FCH JU)	Public-private partnership between European Commission and industry to accelerate introduction of fuel cell and hydrogen technologies	Partnership is between European Commission and research and industry bodies	CJEU
Clean Sky Joint Undertaking	Public-private partnership between European Commission and industry to reduce environmental impact of aviation	Membership open only to legal entities established in the EU or countries associated to Horizon 2020	CJEU

Sources: Agency websites; European Union Agency for Fundamental Rights, <u>EU agencies working for you</u> (2015); <u>EU agencies and post-Brexit options</u>, Briefing Paper 7597, House of Commons Library, 2017. CJEU = Court of Justice of the European Union, OLAF = European Anti-Fraud Office

Formal minutes

Monday 19 March 2018

Members present:

Norman Lamb, in the Chair

Vicky Ford Damien Moore
Darren Jones Neil O'Brien

Carol Monaghan Martin Whitfield

Draft Report (*Brexit, science and innovation*), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 40 read and agreed to.

Annexes agreed to.

Summary agreed to.

Resolved, That the Report be the Second Report of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Tuesday 20 March at 9.00 am

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the <u>inquiry publications</u> page of the Committee's website.

Tuesday 6 March 2018

Sam Gyimah MP, Minister for Universities, Science, Research and Innovation, and **Amanda Dickins**, Deputy Director, EU Exit: Science and Innovation, Department for Business, Energy and Industrial Strategy

Q1-102

Published written evidence

The following written evidence was received and can be viewed on the <u>inquiry publications</u> page of the Committee's website.

BIS numbers are generated by the evidence processing system and so may not be complete.

- 1 ABPI & BIA (BSI0075)
- 2 Academy of Medical Royal Colleges (BSI0035)
- 3 Academy of Medical Sciences (BSI0043)
- 4 Academy of Social Sciences (BSI0048)
- 5 ADS Group (BSI0006)
- 6 Agricultural Biotechnology Council (BSI0015)
- 7 AIRTO, Association of Innovation, Research & Technology Organisations (BSI0045)
- 8 Alzheimer's Research UK (BSI0038)
- 9 AsSIST-UK (BSI0017)
- 10 Association of British Healthcare Industries (BSI0058)
- 11 Association of Medical Research Charities (BSI0032)
- 12 Brexit Health Alliance (BSI0030)
- 13 British Academy (BSI0069)
- 14 British Geological Survey (BSI0027)
- 15 British Heart Foundation (BSI0013)
- 16 British Pharmacological Society (BSI0007)
- 17 British Society for Immunology (BSI0059)
- 18 Campaign for Science and Engineering (BSI0076)
- 19 Cancer Research UK (BSI0023)
- 20 CBI (BSI0042)
- 21 Centre for Process Innovation (CPI) (BSI0065)
- 22 Department for Business, Energy and Industrial Strategy (BSI0086)
- 23 Dr Celia Medupin, University of Manchester and Dr Erinma Ochu, University of Salford (<u>BS10063</u>)
- 24 Duchenne UK (BSI0033)

- 25 ELIXIR and ELIXIR UK (BSI0052)
- 26 EMBL-European Bioinformatics Institute (BSI0061)
- 27 Federation of Small Businesses (BSI0081)
- 28 Fresh Produce Consortium (BSI0051)
- 29 GARNet (BSI0066)
- 30 Genetic Alliance UK (BSI0049)
- 31 Imperial College London (BSI0068)
- 32 Institute of Food Science & Technology (BSI0078)
- 33 Institute of Physics (BSI0082)
- 34 Institute of Physics and Engineering in Medicine (BSI0021)
- 35 Institution of Environmental Sciences (BSI0044)
- 36 James Hutton Institute (BSI0084)
- 37 John Innes Centre (BSI0020)
- 38 Johnson Matthey PLC (BSI0079)
- 39 Lancaster University (BSI0074)
- 40 LGC (National Measurement Laboratory) (BSI0003)
- 41 Lilly UK (BSI0041)
- 42 Martin Yuille, The University of Manchester (BSI0029)
- 43 Microbiology Society (BSI0039)
- 44 Microbiology Society (BSI0087)
- 45 Miss Tessa Burrington (BSI0026)
- 46 MSD (BSI0055)
- 47 National Heritage Science Forum (BSI0072)
- 48 National Physical Laboratory (BSI0057)
- 49 Nesta (BSI0067)
- 50 Newcastle University (BSI0034)
- 51 NIAB (BSI0014)
- 52 Odgers Berndtson (BSI0011)
- 53 Professor John Hardy, UCL (BSI0002)
- 54 Prospect (BSI0018)
- 55 Roche Products Limited (BSI0024)
- 56 Royal Academy of Engineering (BSI0056)
- 57 Royal Astronomical Society (BSI0053)
- 58 Royal Pharmaceutical Society (BSI0010)
- 59 Royal Society of Biology (BSI0080)
- 60 Royal Society of Chemistry (BSI0062)
- 61 Russell Group (BSI0077)
- 62 Samsung UK and Ireland (BSI0064)

- 63 SCI (BSI0083)
- 64 Scottish Universities Life Sciences Alliance (BSI0008)
- 65 Sir Paul Nurse (BSI0009)
- 66 Society for Applied Microbiology (BSI0037)
- 67 Spanish Researchers in the UK (SRUK) (BSI0028)
- 68 Syngenta (BSI0012)
- 69 The Geological Society (BSI0036)
- 70 The National Oceanography Centre (BSI0025)
- 71 The Physiological Society (BSI0016)
- 72 The Royal Society (BSI0073)
- 73 The Royal Society of Edinburgh (BSI0031)
- 74 The University of Edinburgh (BSI0004)
- 75 Transcript of the Science and Technology Committee Summit on 22 February 2018 (BSI0085)
- 76 UCL (BS10060)
- 77 UK Deans of Science (BSI0040)
- 78 UKAEA (BSI0070)
- 79 Universities Scotland (BSI0054)
- 80 Universities UK (BSI0019)
- 81 University of Bristol (BSI0050)
- 82 University of Exeter (BSI0071)
- 83 University of Manchester (BSI0046)
- 84 University of Oxford (BSI0047)
- 85 Wellcome Sanger Institute (BSI0005)

List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the <u>publications page</u> of the Committee's website. The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

Session 2017–19

First Report	Pre-appointment hearing: chair of UK Research & Innovation and executive chair of the Medical Research Council	HC 747
First Special Report	Science communication and engagement: Government Response to the Committee's Eleventh Report of Session 2016–17	HC 319
Second Special Report	Managing intellectual property and technology transfer: Government Response to the Committee's Tenth Report of Session 2016–17	HC 318
Third Special Report	Industrial Strategy: science and STEM skills: Government Response to the Committee's Thirteenth Report of Session 2016–17	HC 335
Fourth Special Report	Science in emergencies: chemical, biological, radiological or nuclear incidents: Government Response to the Committee's Twelfth Report of Session 2016–17	HC 561