

**GOVERNMENT RESPONSE TO THE HOUSE OF LORDS
SCIENCE AND TECHNOLOGY COMMITTEE REPORTS: “A TIME FOR BOLDNESS: EU
MEMBERSHIP AND UK SCIENCE AFTER THE REFERENDUM”, and
“EU MEMBERSHIP AND UK SCIENCE”**

Introduction

The Government thanks the Science and Technology Committee for its report of April 2016 on the relationship between EU membership and UK science¹ and its follow-on report of December 2016 on EU membership and science after the referendum². It particularly welcomes the support expressed for its commitment to underwrite EU research funding. The Government is grateful that the Committee has agreed to the Government providing one consolidated response to both reports.

The UK’s status as a global centre for science and research is fundamental to our wider economic competitiveness. This Government will continue to engage with our international partners and keep our focus on research excellence. We will maintain an environment in the UK that attracts the best minds. We value the contributions made by international staff, both from the European Union and elsewhere. Our Government is committed to building on the UK’s world-leading science base and making the UK the global go-to nation for scientists, innovators and investors in technology.

As the Prime Minister said recently in her Lancaster House speech, and as the Government’s recent White Paper³ has made clear, a global Britain must also be a country that looks to the future. That means being one of the best places in the world for science and innovation. The Prime Minister noted that we would welcome an agreement to continue to collaborate with our European partners on major science, research, and technology initiatives. Retaining and building on our science and research base will remain a top priority.

The Government made a series of announcements on EU research and innovation funding and collaboration to provide assurance and certainty to stakeholders. We have ensured that these have been communicated widely domestically and across the EU. Stakeholders have been reassured that they should continue to bid for competitive EU research funding such as Horizon 2020 while we remain a member of the EU because the Government will work with the European Commission to ensure payment when funds are awarded. The Treasury will underwrite the payment of such awards, even when specific projects continue beyond the UK’s departure from the EU. This has given British participants and their EU partners the assurance and certainty needed to plan ahead for projects that can run over many years.

¹ <http://www.publications.parliament.uk/pa/ld201516/ldselect/ldsctech/127/127.pdf>

² <http://www.publications.parliament.uk/pa/ld201617/ldselect/ldsctech/85/85.pdf>

³ The United Kingdom’s exit from and partnership with the European Union - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/589191/The_United_Kingdoms_exit_from_and_partnership_with_the_EU_Web.pdf

The guarantees that the Treasury has provided sent a clear message to UK businesses and universities that whilst we remain a member of the EU they should continue bidding for competitive EU funding. The UK is a net contributor to the European Union: all EU funding that the UK currently receives is outweighed by the contribution made by UK taxpayers.

We have also committed to go further to support a healthy science and technology ecosystem in this country than ever before. This Government has recently committed to substantial real terms increases in government investment in R&D, rising to an extra £2 billion a year by 2020/21⁴, to help put Britain at the cutting edge of science and technology.

We have provided further assurance⁵ by confirming that existing EU students and those starting courses in 2016/17 and 2017/18 will continue to be eligible for student loans and home fee status for the duration of their courses.

We recently extended that assurance to postgraduate support through Research Council studentships, which will remain open on the current basis to EU students starting courses in the 2017/18 academic year⁶. The funding support will cover the duration of their course, even if the course concludes after the UK has left the EU.

We have also established a High Level Stakeholder Working Group on EU Exit, Universities, Research and Innovation. The Group is chaired by Jo Johnson, the Minister for Universities, Science Research and Innovation and DExEU Minister Robin Walker attends meetings. It includes a number of senior representatives of UK universities, science, research and innovation communities and will discuss opportunities and issues arising from the UK's exit from the European Union.

In January we launched our Green Paper "Building our Industrial Strategy"⁷ setting out our approach to developing a modern industrial strategy. The strategy aims to improve living standards and the economy by increasing productivity and driving growth across the whole of the UK. We are putting the UK's strengths in science, research and innovation at the heart of our industrial strategy. Research and innovation lead to new products, services and better ways of doing business that are key to economic growth and UK competitiveness. The UK is already a world-leader in science and research, but we must make sure that we do more to commercialise the ideas and discoveries made in Britain. British companies must be at the forefront of innovation, developing new products and services that address the challenges of the future.

Making the UK the best place for science and innovation is one of the 12 key objectives in the recent Government White Paper a vision for a Global Britain. This reflects the high priority placed on our research base within the Government's strategy for Britain's departure from the European Union.

⁴https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/571559/autumn_statement_2016_web.pdf

⁵ <https://www.gov.uk/government/news/funding-support-for-eu-students>

⁶ <https://www.gov.uk/government/news/eu-nationals-remain-eligible-for-postgraduate-support-from-uks-research-councils>

⁷ <https://www.gov.uk/government/consultations/building-our-industrial-strategy>

The first part of this response addresses the more recent recommendations of the December report, using cross references to the related conclusions of the April report to minimise repetition. The second part of the response covers those conclusions of the April report that were not addressed in the first part.

The Government's response to the recommendations of "A TIME FOR BOLDNESS: EU MEMBERSHIP AND UK SCIENCE AFTER THE REFERENDUM" (December 2016)

Committee Recommendation

The Government's commitment to underwrite Horizon 2020 funding with new money is significant and welcome. The Government should try to enable scientists in the UK to retain access to Horizon 2020 and other EU funding post-Brexit. In the light of the UK's science credentials and given that a number of countries outside the EU already have access to this funding, we would expect the EU and the UK Government to agree terms under which this access remains open. (Paragraph 25)

Government response

The Government is pleased to note the Committee's support for its commitment to underwrite EU research funding⁸, the first of a series of announcements to provide assurance and certainty to stakeholders.

As the Prime Minister has said⁹, we will welcome agreement to continue to collaborate with our European partners on major science, research and technology initiatives. There may be specific European programmes that we might still want to participate in, we will consider this as part of the negotiation. It is, however, too early to speculate on the UK's future relationship with specific EU research programmes, including Horizon 2020 and successor programmes.

Committee Recommendation

Reassurances on funding are welcome but if they were to expire, and are not replaced, this would undermine some of the benefit of the major increase announced in the 2016 Autumn Statement. We assume the Government does not intend for this to happen, so we recommend that, in addition to the 2016 Autumn Statement announcement, the science and research budget should be re-based at an early opportunity to compensate fully for any reduction of funding from the EU, in effect adopting the Government's 13 August reassurances into the funding baseline for the science and research budget in future. (Paragraph 30)

Government response

This Government's sustained and consistent investment underscores our commitment to protect our strength in science and ensure the UK remains a leading destination for research and innovation. We were pleased to announce at Autumn Statement a substantial investment in research and innovation, committing to spend an extra £2

⁸ <https://www.gov.uk/government/news/chancellor-philip-hammond-guarantees-eu-funding-beyond-date-uk-leaves-the-eu>

⁹ <https://www.gov.uk/government/speeches/the-governments-negotiating-objectives-for-exiting-the-eu-pm-speech>

billion a year by 2020/21, the biggest increase in decades.¹⁰ This came in addition to previous decisions to protect science funding with a total investment of £26 billion over the period 2016/17 to 2020/2021.

Committee Recommendation

We recommend that the Government should publish in anonymised, aggregate form any evidence received of discrimination against UK researchers in EU funding or collaboration, along with its own assessment of whether the concerns put forward have been addressed by subsequent reassurances or other policy interventions. (Paragraph 39)

Government response

The Government opened the research inbox (research@beis.gov.uk) in July 2016. It was set up to give the research community an easy way to alert us to immediate issues. We were particularly keen to identify potential instances of prejudice against UK researchers accessing, or thinking about bidding for, EU programmes.

The majority of emails came in the immediate aftermath of the referendum and prior to the HM Treasury underwrite announcement on 13 August. The most common issues were concerns about the willingness of European partners to work with UK researchers in future and about being asked to step down as coordinator of an EU research proposal or being asked to leave consortia preparing proposals. We sought more information to verify these reports. Unfortunately, in most cases supporting evidence was very limited. There were also a small number of instances of UK researchers telling us that they had chosen not to bid for EU funds under the misapprehension that they might be disadvantaged in the assessment process.

The research inbox, research@beis.gov.uk, remains open. We will continue to monitor it for issues raised by the research community, treat the information provided in strict confidence and act where appropriate.

We are monitoring data on Horizon 2020 proposal submissions and evaluations for any evidence of reduced UK participation that could be attributed to discrimination. Early indications are that UK performance in Horizon 2020 continues to be strong. Results of the October 2016 cut-off date for the “Fast Track to Innovation” call¹¹ shows that the UK continues to be the country with the greatest number of participations. The UK also won more of the most recent proof-of-concept grant awards than any other country.¹²

Committee Recommendation

¹⁰https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/571559/autumn_statement_2016_web.pdf

¹¹ <https://ec.europa.eu/easme/en/news/commission-speeds-access-market-17-innovative-projects-335-million>

¹² https://erc.europa.eu/sites/default/files/press_release/files/erc_pr_poc_2016_third_results.pdf

The Government and the wider science community should search in the short and medium terms for any early indications of change in the attractiveness of the UK to talented scientists. (Paragraph 51)

Government response

The Government is committed to building on the UK's world-leading science base and making the UK the global go-to nation for scientists, innovators and technological investors. We collect data on a range of measures that provide information on the scientific standing and attractiveness of the UK, including the citation impact of UK publications¹³, UK university rankings and the levels of overseas investment in research and development¹⁴, and overseas students and staff¹⁵.

Committee Recommendation

We reiterate the recommendations we made in our 2014 report, International STEM students that:

- ***the Government should distinguish in the immigration statistics and the net migration target between students—holding Tier 4 visas—and other immigrants; and***
- ***the Government should treat student numbers separately for immigration policy making purposes. (Paragraph 58)***

Government response

The Government is absolutely clear that genuine students are welcome to the UK. There is no cap on the number of international students, nor any plan to introduce one. We continue to have a highly competitive offer for international students who would like to study at our world-class institutions, including those who wish to study STEM courses. Non-EU new entrant students studying STEM at UK universities increased 1.5% (to over 57,165) between 2013/14 and 2014/15¹⁶.

The independent Office for National Statistics (ONS) publishes data showing immigration by category. Like other migrants, students who stay for longer than twelve months have an impact on communities, infrastructure and services while they are here. It is important that Local Authorities have a clear picture on who will be using resources in their area, so they can plan their resources accordingly. This is why the ONS includes students in its calculation of net migration statistics, in line with best practice around the world.

¹³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/310544/bis-performance-indicators-uk-share-highly-cited-academic-articles-april-2014.pdf

¹⁴ <https://www.ons.gov.uk/businessindustryandtrade/business/businessinnovation#publications>

¹⁵ <https://www.hesa.ac.uk/>

¹⁶ HESA Student Record 2013/14 and 2014/15

The above response also addresses the recommendations made in paragraph 172 of the April 2016 report.

Committee Recommendation

Whilst recognising that immigration is a highly politically charged issue, we would remind the Government that the public's views on immigration are more nuanced than newspaper headlines might suggest. We urge the Government in the strongest possible terms to take action. (Paragraph 59)

Government response

The Government recognises that attracting international talent in science and research is vital to maintaining and improving the UK's world-class research base. As the Prime Minister set out in her speech on the UK's objectives for EU exit¹⁷: "We will continue to attract the brightest and the best to work or study in Britain – indeed openness to international talent must remain one of this country's most distinctive assets".

Our research community is enriched by the best minds from Europe and around the world. Securing the status of, and providing certainty to, EU nationals already in the UK and to UK nationals in the EU is one of this Government's early priorities for the forthcoming negotiations.

The above response also addresses the recommendations made in paragraph 171 of the April 2016 report.

Committee Recommendation

In the short term the Government should send repeated signals to the global science community that the UK remains a welcoming place for talented scientists. (Paragraph 60)

Government response

The Government is actively seeking to engage with international stakeholders. Our global Science and Innovation Network (SIN) has attachés in Embassies across the globe and SIN teams are developing country level plans to communicate key messages, including the UK's continued openness to international talent. We are also liaising with international offices of partner organisations such as Research Councils UK (RCUK) and Innovate UK, as well as stakeholder bodies such as the National Academies who are able to reach out to researchers via their international networks.

¹⁷ <https://www.gov.uk/government/speeches/the-governments-negotiating-objectives-for-exiting-the-eu-pm-speech>

Committee Recommendation

We recommend that the Government, through its global science and innovation network, or the British Council, should perform annual surveys around the world assessing the UK's reputation in the global scientific community as a welcoming place to pursue a scientific career. The results of these surveys should be published. (Paragraph 61)

Government response

As set out in response to paragraph 51, the Government collects data on a range of measures that provide information on the scientific standing and attractiveness of the UK¹⁸. The evidence demonstrates that the UK is an attractive destination for research careers. In the academic year 2015/16, there were 48,900 overseas (non-UK domiciled) postgraduate research enrolments and 58,300 overseas (non-UK national) academic staff employed at UK higher education institutions¹⁹.

Committee Recommendation

The EU referendum result and mixed messages from the Government may well undermine the shared ambitions of the Government and the research community to welcome talented scientists to the UK. We therefore recommend that the Government should take decisive steps to promote the UK as a first class location for research careers and an attractive partner for international collaboration. Some components of this global initiative are already in place and need only be enhanced in scale and emphasis. Actions the Government might take which we have identified in the course of our private deliberations include

- ***maintaining the Chevening scholarships that attract talented, highly motivated people to pursue post-graduate studies in the UK;***
- ***creating additional scholarships for the most talented early career researchers at PhD and postdoctoral levels—regardless of whether they come from the UK or other countries—to nurture the next generation of research leaders in the UK; and***
- ***expanding the Research Councils' Global Challenges Fund and the Newton Fund to make available additional resources for international research collaborations, but not at the expense of domestic investment in science and research. (Paragraph 65).***

The expansion of these programmes should be subject to the rigorous review and value for money appraisals that apply to existing research funding. (Paragraph 66)

¹⁸ <https://www.hesa.ac.uk/>

¹⁹ HESA, Student and Staff statistical first releases, 2015/16

Government response

As set out in response to paragraph 60, the Government recognises attracting international talent in science and research is vital to maintaining and improving the UK's world-class research base. Actions in this area include:

- We intend to maintain the Chevening scholarships, which offer valuable opportunities to able young people from around 140 countries to study at top UK universities and also to learn more about the UK itself and its culture, people and way of life.
- We recognise the importance of building the pipeline of talent, as set out in the Industrial Strategy Green Paper²⁰ and are considering how best to take this forward.
- We plan to double the size of the Newton Fund between 2015/16 and 2020/21, from £75m per year to £150m per year²¹. The Fund is supporting sixteen science and innovation partnerships between the UK and developing countries, including Brazil, Chile, China, Colombia, Egypt, India, Indonesia, Kenya, Malaysia, Mexico, Philippines, South Africa, Thailand, Turkey and Vietnam.
- The Global Challenges Research Fund is ensuring that UK research plays a leading role in addressing the problems faced by developing countries. The Fund supports challenge-led research, which strengthens capacity for research and innovation within developing countries and the UK, and provides an agile response to emergencies where there is an urgent research need. The Fund is already being put to good use, as the recent £1m Rapid Response call for research grant applications to tackle the Zika virus demonstrates.

The Government's commitment to assessing the impact of research funding is demonstrated by the recent review of the Research Excellence Framework²² and the Government response²³.

Committee Recommendation

We recommend that the Government asks National Academies and the new UKRI to search the globe for outstanding scientific leaders, and attract them to the UK with compelling offers of research funding for their first 10 years in the UK and support for their immediate families as they settle into the UK. This initiative should receive resources beyond the existing science and research budget to ensure that it does not undermine support for the existing UK science community. (Paragraph 69)

²⁰ <https://www.gov.uk/government/consultations/building-our-industrial-strategy>

²¹ <https://www.gov.uk/government/news/johnson-sets-out-measures-to-make-uk-best-place-in-world-to-do-science>

²² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/541338/ind-16-9-ref-stern-review.pdf

²³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/559917/research-excellence-framework-ref-review-response.pdf

Government response

The Government recognises the importance of ensuring that the UK attracts leading global researchers to maintain and further develop the excellence of UK research and innovation, as set out in the Industrial Strategy Green Paper²⁴. We are considering how best to take this forward in a way which will maximise the economic and wider social benefits for the UK.

Committee Recommendation

We urge the Government to consult the science community in the short- and medium-term to identify opportunities for bold long-term moves to reinforce the UK's global standing in science. This could include the UK offering to host, in partnership with governments and funding bodies from other countries, one or more new international research facilities on the scale of the Diamond Light Source in Harwell or the Francis Crick Institute in London, together with existing and new networks. We expect that all such moves should be subject to the rigorous review and value for money appraisals that apply to existing research funding. (Paragraph 76)

Government response

The Government will continue to work closely with the scientific community to ensure that the UK remains one of the best places in the world for science and innovation. In particular UK Research and Innovation (UKRI) will provide a strong and unified voice to represent the interests of UK research and innovation across Europe and around the world. UKRI will take a strategic perspective on the UK's research facilities and we expect them to advise Government on the UK's current and future portfolio of research infrastructures in order to maintain our world leading position.

Committee Recommendation

The Government is already making clear efforts to build trade relationships around the world: it should pursue similar activities in the scientific domain, exploring collaborations and shared protocols with Governments and funding agencies in major scientific nations, particularly where existing relationships are already strong. (Paragraph 79)

Government response

The Government's global SIN and Newton Fund teams work closely with the Department for International Trade, Research Councils, Innovate UK, and HEFCE to

²⁴ <https://www.gov.uk/government/consultations/building-our-industrial-strategy>

promote the UK as an international partner of choice. This network actively engages with governments and funding agencies across the world and will be further strengthened by the establishment of UKRI. UKRI will strategically pursue international collaboration opportunities and will inherit the role of continuing to manage an extensive range of international collaborations and science orientated Government programmes.

Innovate UK is already actively exploring opportunities for bilateral programmes with funding partners in countries with complementary capabilities, where there is scope for economic growth. These plans will be detailed in due course. Furthermore, opportunities were provided by Innovate UK last year to enable UK SMEs to undertake short global cooperation feasibility studies. These studies have been funded to help build international business networks, enable commercial research and innovation partnerships, and future collaboration.

Committee Recommendation

We recommend that the Government should assess in the short term the administrative structures and scientific advice required to support the regulatory responsibilities in the scientific domain that will transfer from the EU to the UK following the Great Repeal Bill. That assessment should include, but not be limited to, the scientific dimensions of medical, agricultural, energy, environmental, transport and telecommunications regulation. (Paragraph 89)

We urge the Minister to publish the results of this assessment before the Great Repeal Bill is enacted. (Paragraph 90)

Government response

The Government continues to undertake a wide range of analysis covering the entirety of the UK economy. This will inform the UK's position for the upcoming negotiations with our EU partners. As part of this work all Government departments are currently reviewing the EU laws that apply in their policy areas and how our withdrawal from the EU will affect the operation of those laws. Where laws need to be fixed, that is what the Government will do.

As part of the negotiations the Government will discuss with the EU whether, and how best, to continue cooperation on different fields of regulation that affect UK businesses in the best interests of both the UK and the EU.

The above response also addresses the point made on regulation in paragraph 250 of the April 2016 report.

Committee Recommendation

The Government must ensure that it has appropriate scientific advice during the Brexit negotiations. We share the disappointment voiced by the House of Commons

Science and Technology Committee in its report Leaving the EU: implications and opportunities for science and research that the Department for Exiting the European Union is not currently progressing with appointing a departmental Chief Scientific Adviser (CSA). (Paragraph 93)

The voice of the scientific community should be heard alongside the voice of business during the Brexit negotiations and in making future alliances. We urge the Government in the short term to assess the need for a Chief Scientific Adviser in the Department for International Trade, bearing in mind the scale of scientific analysis that underpins international trade regulations and may be required for trade negotiations. (Paragraph 94)

Government response

The Department for Exiting the European Union (DExEU) is continuing to work closely with Sir Mark Walport, the Government's Chief Scientific Adviser, to consider how to ensure that DExEU is accessing the very best scientific expertise both within and outside government. There are several models for achieving this, and we must be sure we are taking into account DExEU's role as a co-ordinating department when putting provision in place. The department is currently exploring these options, including considering the appointment of a Chief Scientific Adviser.

The Department for International Trade is considering the case for appointing a Chief Scientific Adviser.

In addition to internal expert advice we have consulted, and will continue to consult, with a very wide range of universities and research institutions on the implications of EU exit. We aim to ensure that the views of researchers are heard and that we build consensus around our negotiating position. The High Level Stakeholder Working Group on EU Exit will be an important mechanism for gathering the community's views.

Committee recommendation

Within the framework of the Industrial Strategy and in view of this new funding, we hope that UKRI will be given the freedom to support projects on their merit, assessed by peer review. We also hope that UKRI will be free to use this funding to support international collaborations with partners in EU Member States and elsewhere if these provide the most attractive propositions. (Paragraph 105)

Government response

The Government is fully committed to the Haldane principle, and the fundamental tenet that funding decisions should be taken by experts in their relevant areas is reflected in the design of UKRI. UKRI will be established as an arm's length body independent of Whitehall. Under these reforms, the Secretary of State will continue to allocate the Research Councils' budgets separately through an annual grant letter to UKRI. In

keeping with the Haldane Principle, discipline specific activity funded by these budgets will be the responsibility of the Council Executive Chairs.

The Government has acknowledged the vital importance of international partnerships in research and innovation, and have been clear that as we exit the EU, we would welcome agreement to continue to collaborate with our European partners on major science, research and technology initiatives. Accordingly, UKRI will be able to carry out any and all of its function outside of the UK, and will offer a powerful voice in Europe and around the world. This is also evident in the recently published advertisement for UKRI Board members²⁵, which makes explicit reference to the fact that UKRI will be a globally-facing organisation.

Committee recommendation

This is a time for bold steps to prepare our country for life outside the constraints and opportunities of EU membership, but with a far more prominent place in the global economy. (Paragraph 106)

In addition to the changes recommended in Chapters 2 and 3, the following mitigating changes could be made within the wider context of the Industrial Strategy:

- ***Reforming public procurement to support innovative businesses and otherwise stimulate the UK economy. Reforms should include, but not be limited to, enhancing the Small Business Research Initiative; and***
- ***Expanding the scale and scope of the R&D tax credit to cover a wider span of business innovation. (Paragraph 107)***

Government response

In the Industrial Strategy Green Paper²⁶ the Government recognises that taking a strategic approach to government procurement presents the opportunity to support investment in innovation and skills. Views are being sought from a wide range of perspectives.

Currently the Review of the Small Business Research Initiative (SBRI) is examining how we can increase the impact of the programme to enable more businesses to bid for government contracts to develop new products and services for the public sector . Around £50m a year of contracts are awarded to businesses through SBRI each year, but we think there is potential to increase use of SBRI across the public sector. The Review is being led by David Connell, an industry expert with a background in the science and technology sectors and knowledge of the innovation landscape. This is a short review to be delivered at pace and reporting in Spring 2017.

²⁵ <https://publicappointments.cabinetoffice.gov.uk/appointment/ukri-board-members/>

²⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/585273/building-our-industrial-strategy-green-paper.pdf

In 2014-15, R&D tax credits provided £2.45 billion of relief to almost 21,000 companies, supporting around £21.8 billion of innovative expenditure. The government is currently reviewing the tax environment for Research and Development to look at how to make the UK an even more competitive place to do R&D.

Committee Recommendation

The Government should take advantage of Brexit and review current rules on VAT exemption on sharing of buildings, equipment and facilities for the purposes of R&D, to support industry, academia and charity collaborations and attract further inward investment. (Paragraph 111).

Government response

The future of VAT is one of the many complex issues that will have to be subject to careful negotiation with the Commission and other Member States as we move forward to make a success of our exit from the EU.

The Government's response to the recommendations of "EU MEMBERSHIP AND UK SCIENCE" (April 2016)

Committee Recommendation

Regulatory framework; Despite some EU regulatory frameworks clearly having a detrimental effect on UK and EU science, we see value in the harmonisation of regulatory frameworks across Member States. In areas where regulation has had a negative effect, or the development of new regulations has had the potential to have such an effect, the UK has often played a key role in working to improve and formulate more appropriate frameworks. We view the development of the new clinical trials regulation and data protection regulation to be prominent examples of this. (Paragraph 39)

Government response

While we remain part of the European Union we will work to ensure the European regulatory framework provides a supportive environment for research and innovation and that the development of regulation is informed by research and innovation. As a result of UK influencing, with like-minded partners, the EU has changed its approach to regulation: the decision-making process in Brussels is now more focused on reducing burdens for businesses, particularly smaller businesses, and increasingly recognises the need for innovation-friendly regulation²⁷.

Committee Recommendation

Scientific advice and influence; We welcome the development of the Scientific Advice Mechanism (SAM) and the presence of a UK scientist, Professor Dame Julia Slingo, on the membership of the High Level Group. The SAM, however, is in its infancy and it remains to be seen how effective and influential it will prove to be. It is vital that its early promise is fulfilled. The progress of the SAM must be monitored carefully and we will keep a watching brief in this area, and trust that others will do the same, not least the UK scientific community. (Paragraph 55)

Government response

The Government considers that the Scientific Advice Mechanism (SAM) has the necessary elements to enable it to make an effective contribution to EU policy making. We will continue to keep track of its progress. The High Level Group met on 24 and 25 November 2016, the agenda included items on cybersecurity, biotechnology, and pesticides, and follow-up items on emission testing for Light Duty Vehicles and potential new topics²⁸.

²⁷ https://ec.europa.eu/research/innovation-union/pdf/innovrefit_staff_working_document.pdf

²⁸ https://ec.europa.eu/research/sam/pdf/meetings/hlg_sam_052016_minutes.pdf#view=fit&pagemode=none

As the Committee is aware, in October 2016 Dame Julia Slingo announced her retirement from professional life and stood down from the High Level Group. Shortly before the January 2017 meeting of the HLG the Commission announced that Sir Paul Nurse would be joining the HLG with effect from 1 March 2017²⁹, an appointment the Government welcomes.

Committee Recommendation

The purposes of competitive Framework Programme funds and structural funds for research and innovation are different. By designating a portion of structural funds for research and innovation, the European Commission aims to boost scientific capacity across Member States and increase the success rate of applications for competitive Framework Programme funds from regions with weaker economies. While we commend this approach, we are concerned by the apparent lack of evidence as to whether this spending has actually raised the scientific competitiveness of recipients. We recommend that this evidence should be assembled by the European Commission. (Paragraph 119)

Government response

European Structural and Investment Funds (the European Regional Development Fund – ERDF; and the European Social Fund – ESF) are the key EU funds aimed at supporting jobs and growth and reducing regional disparities across the EU. The introduction of a specific thematic objective on research, innovation and technological development in the Common Provisions Regulation (which governs the use of Structural Funds) should make it much easier to measure the level of EU spending on R&D in the UK and other Member States under the current programmes.

The Government has argued strongly for the need to improve the monitoring and evaluation of the results of Structural Funds. This is reflected in the design of the current EU regulations which includes new mechanisms to achieve this, such as the introduction of performance frameworks, ex ante conditionalities, and Member State-level partnership agreements. In 2017, the Commission will produce its seventh Cohesion Report which will evaluate progress towards achieving economic and social cohesion across the European Union and the Strategic Report on implementation of the current Structural Fund programmes. The Government will encourage the Commission to collect evidence on the outcomes of Structural Funds as part of this work.

Committee Recommendation

We are concerned that the participation of large UK businesses in Framework Programme 7 lagged behind that of key competitor nations such as Germany and France and was below the EU average. We recognise that participation in Horizon 2020 may be greater. However, we remain concerned, particularly in the light of the

²⁹ <http://ec.europa.eu/research/index.cfm?pg=newsalert&year=2017&na=na-300117>

abolition of the Regional Development Agencies (RDAs) and introduction of the Local Enterprise Partnerships (LEPs), that UK Government support for businesses in engaging with EU funding schemes may be weaker than in some other Member States. The integrated approach adopted in other countries such as Germany could be viewed as a good model and a basis for a programme of benchmarking. For their part, however, we urge businesses to engage fully with the opportunities afforded by EU funding. We recommend that the UK Government benchmarks its level of support for businesses, large and small, wishing to participate in EU programmes with that available in other Member States and put forward proposals for improving UK performance. (Paragraph 135)

Government response

In spring last year the European Commission published an analysis of the role and impact of industry participation in the Framework Programmes³⁰. The analysis identifies that the alignment of the work programme with the objectives of a company plays the most significant role in determining industry participation. This will be considered in the forthcoming mid-term evaluation of Horizon 2020.

The Government supports UK businesses of all sizes, as well as researchers and other organisations, in identifying opportunities for participating in the EU R&I Framework Programmes through the National Contact Points (NCPs)³¹. The NCPs provide guidance, practical information and assistance on all aspects of participation in Horizon 2020. The Enterprise Europe Network (EEN) in the UK also helps small and medium-sized enterprises (SMEs) develop their innovation potential and growth internationally, through facilitating collaboration with partners in the 66 countries where it operates.

Whilst the share of funding for UK businesses looks relatively low compared to funding for universities, the UK still received the third largest amount of agreed funding for businesses from the Framework Programme 7 (FP7), with UK private for-profit entities receiving 11.3% of that funding. Early indications are that UK businesses are performing strongly in securing funding from Horizon 2020 (€411m so far) putting us in second place.

Within England, implementation of the 2014-2020 European Structural Funds is overseen by a 'Growth Programme Board' which has several members drawn from the business community. Also, the Board is supported by a small number of national level policy advisory sub-committees, including one that focusses on SME competitiveness issues as well as one on Smart Specialisation.

Managing Authorities for Structural Fund programmes in the UK work closely with businesses in designing and delivering programmes, including in relation to research and innovation. It is noteworthy that, in England, the majority of European Structural and Investment Funds are notionally allocated to Local Enterprise Partnerships (LEPs) areas. LEPs work with other local partners to produce a strategy setting out the

³⁰https://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/ki0416320enn.pdf

³¹ <https://www.gov.uk/horizon-2020#additional-information>

investment priorities for their areas. Each LEP has a sub-committee that provides implementation advice to Managing Authorities, and their membership reflects the priorities of the Structural Fund operational programmes and LEP ESI Fund Strategies. These sub-committees advise Managing Authorities on local growth conditions and priorities with regard to project call specifications, funding applications and implementation. Managing Authorities make the final decision on funding in accordance with their respective Operational Programmes (which take account of the LEP strategies).

Committee Recommendation

The researcher mobility afforded by the EU's fundamental principle of freedom of movement is of critical importance to the UK science community, including academia, businesses and charities. It is vital that the flow of researchers—both coming to the UK and UK nationals working overseas— is not restricted. We conclude that researcher mobility must be protected if UK science and research is to remain world-leading. (Paragraph 171)

Government response

This recommendation has been addressed in the response to paragraph 59 of the December report.

Committee Recommendation

Our report on international science, technology, engineering and mathematics (STEM) students, published in 2014, highlighted concerns about the negative impact of Government immigration policy on international recruitment from outside the EU. We are concerned that this situation appears to have changed little since the publication of our report and we recommend that the Government reviews its policy in this area. (Paragraph 172)

Government response

This recommendation is covered by the response to the recommendations of paragraph 58 of the December report.

Committee Recommendation

The UK might wish to become an Associated Country in the event of Brexit. We heard, however, strong views that the UK would lose its influence and roles in setting strategic priorities and in decision-making. If Associated Country status were to be pursued, further investigation would be required in order to ascertain to what extent, and at what expense, the UK's currently influential position would be diminished. (Paragraph 235)

Government response

As the Prime Minister has said, we will welcome agreement to continue to collaborate with our European partners on major science, research and technology initiatives. There may be specific European programmes that we might still want to participate in, we will consider this as part of the negotiation. It is, however, too early to speculate on the UK's future relationship with specific EU research programmes, including Horizon 2020 and successor programmes. We will ensure that our researchers and innovators remain able to collaborate with excellent partners, wherever they are.

Committee Recommendation

Even those who were most in favour of continued membership of the EU— the university sector—criticised aspects of the UK's relationship with the EU. We therefore conclude that, in the event that the UK chooses to remain part of the EU, there would be scope for the UK Government to advance reforms to enhance the interactions between the EU and UK science and research. We suggest that a particular areas of focus should be the influence of the EU on the UK's regulatory environment and the support available for UK businesses in order to facilitate engagement with EU funding schemes. (Paragraph 250)

Government response

Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation. We will seek to influence Horizon 2020 at least until we leave the EU. The UK responded to the Commission's consultation on the Interim Evaluation of Horizon 2020, which closed on 15 January 2017 and where the UK can continue to add value to the debate at European level on research innovation, we absolutely will.

The point on regulation is addressed in the response to the recommendation in paragraphs 89 and 90 of the December report.