

## The Government's actions undermine its ambition for the UK to be a science superpower

The UK Government has identified research and innovation as key to its plan to 'unite and level up' and 'build back better' following COVID-19. Science is also central to its vision for Global Britain to 2030 in the Integrated Review of Security, Defence, Development and Foreign Policy. Investment in science is investment in the UK's future resilience, but there is currently a mismatch between the rhetoric and the Government's actions.

The Government must pay for the UK's association to the EU research programme, Horizon Europe, using money that was previously paid direct to Brussels. Further raids on the UK R&D budget will create a funding gap that undermines the Government's commitment to increase UK investment in R&D to 2.4% of GDP by 2027<sup>1</sup>, and realise the potential of this to improve people's lives.

### The UK's R&D budget is at risk

The *2020 Spending Review* promised a £0.7 billion increase to the BEIS R&D budget for 2021 – 2022 – this includes UK Research & Innovation (UKRI), which delivers the majority of public funding for research and innovation in the UK – contributing to an overall government R&D spend of £14.6 billion<sup>2</sup>.

The UK Government has committed to investing £22 billion in UK R&D by 2024 – 2025 as part of a target of 2.4% of GDP by 2027, and 3% in the longer-term. Read more on [Investing in UK R&D](#)

Research and innovation is global and the value of international cooperation is evidenced by the rapid global response to COVID19, leading to the successful roll out of vaccines.

Since then, the government has confirmed the UK's association to Horizon Europe – a valuable commitment to international scientific collaboration – but it did not give an assurance that the money to pay for this will be additional to funds already committed to the R&D budget. The Government previously recognised and committed to addressing the funding gap that would open-up if the UK did not associate to Horizon Europe<sup>3</sup>. If the payment for association is now taken from existing R&D budgets, the Government is creating a new funding gap.

Alongside this, the Government has also announced major cuts to Official Development Assistance (ODA), halting valuable research and innovation activity and scientific collaborations in their tracks, at the same time as there is a major fall in charity investment in medical research due to COVID-19 impacting fundraising revenue, and a loss of R&D capacity funding through EU Structural and Investment Funds with no confirmed replacement. Pressures on UK R&D and its ability to deliver for people and places are growing rapidly. This is while government places science at the heart of its recovery.

The UK's rapid response to COVID-19 is based on years of investment in vaccine development. Our long-term prospects are equally tied to investing in future research and innovation.

Stop-start investment is destructive as research projects can span decades or even lifetimes. Once lost, research capacity takes time to rebuild and the UK will cede ground to other countries in Europe and around the world.

TABLE 1

UK R&amp;D Budget allocations.

Year	UK R&D budget total	BEIS R&D budget	Total public investment in R&D (based on actual expenditure – this does not include investment through EU Framework Programmes which is captured in ‘overseas’)	UK contribution to EU Framework Programmes <sup>4</sup>	Average support for UK R&D from EU Framework Programmes	Investment in UK R&D as a percentage of GDP
2017/ 2018	Not published	£7.511 billion <sup>5</sup>	£10.4 billion (2017) <sup>6</sup>	Part of the UK’s total national contribution to the EU	£1.1 billion <sup>7</sup>	1.67% GDP (2017)
2018/ 2019	£10.6 billion <sup>8</sup>	£7.982 billion <sup>9</sup>	£12.6 billion (2018) <sup>10</sup>	Part of the UK’s total national contribution to the EU	£1.1 billion <sup>11</sup>	1.71% GDP (2018) <sup>12</sup>
2019/ 2020	£11.4 billion <sup>13</sup>	£8.614 billion <sup>14</sup>	Not yet available	Part of the UK’s total national contribution to the EU	£1.1 billion <sup>15</sup>	Not yet available
2020/ 2021	£13.2 billion <sup>16</sup>	£10.361 billion <sup>17</sup>		Part of the UK’s total national contribution to the EU	£1.1 billion <sup>18</sup>	
2021/ 2022	£14.6 billion <sup>19</sup>	£11.1 billion <sup>20</sup> (before ODA cuts)		Approximately £2 billion not yet clear whether this money will come from that already committed to R&D, as indicated in the previous columns.	Not yet available	
2022/ 2023	Yet to be announced	Yet to be announced		Approximately £2 billion		
2023/ 2024	Yet to be announced	Yet to be announced		Approximately £2 billion		
2024/ 2025	Commitment to reach £22bn made in the 2020 budget <sup>21</sup>	Yet to be announced		Approximately £2 billion		
2025/ 2026	Yet to be announced	Yet to be announced		Approximately £2 billion		
2026/ 2027	Yet to be announced	Yet to be announced		Approximately £2 billion		
2027/ 2028	Yet to be announced	Yet to be announced		Approximately £2 billion		Commitment to reach 2.4% of GDP invested in UK R&D <sup>22</sup>

# References

1. HM Government (2020) *UK Research and Development Roadmap*.
2. UK Government, *Spending Review 2020* (November 2020) <https://www.gov.uk/government/publications/spending-review-2020-documents/spending-review-2020> [accessed 8 March 2021].
3. HM Government (2020) *UK Research and Development Roadmap*.
4. Horizon 2020 from 2014 to 2020. Horizon Europe from 2021.
5. UK Government (July 2018) *THE ALLOCATION OF FUNDING FOR RESEARCH AND INNOVATION* Research and innovation funding allocation: 2017 to 2021 ([publishing.service.gov.uk](https://publishing.service.gov.uk)) [accessed 8 March 2021].
6. ONS (2020) UK gross domestic expenditure on research and development, 2017.
7. This is an average of the net EU contribution to the UK (2015-2017) by Horizon 2020 programme. Income from Framework Programmes fluctuates annually over the course of the Programme. Horizon Europe, which will run from 2021 to 2027, is approximately 30% larger than its predecessor. Horizon 2020 (2014 – 2020). For data see annex 2 Royal Society (2019) *Royal Society submission to the Sir Adrian Smith call for evidence on future frameworks for international collaboration on research and innovation* <https://royalsociety.org/-/media/policy/Publications/2019/31-05-19-royal-society-submission-to-sir-adrian-smith-review.pdf> [accessed 15 March 2021].
8. Philip Duffy, Chief Scientific Adviser HMT (June 2020), *Oral evidence: UK Science, Research and Technology Capability and Influence in Global Disease Outbreaks 5 June 2020* (<https://committees.parliament.uk/oralevidence/464/html/>) [Accessed 16 March 2021].
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11. This is an average of the net EU contribution to the UK (2015-2017) by Horizon 2020 programme. Income from Framework Programmes fluctuates annually over the course of the Programme. Horizon Europe, which will run from 2021 to 2027, is approximately 30% larger than its predecessor, Horizon 2020 (2014 – 2020). For data see annex 2 Royal Society (2019) *Royal Society submission to the Sir Adrian Smith call for evidence on future frameworks for international collaboration on research and innovation* <https://royalsociety.org/-/media/policy/Publications/2019/31-05-19-royal-society-submission-to-sir-adrian-smith-review.pdf> [accessed 15 March 2021].
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15. This is an average of the net EU contribution to the UK (2015-2017) by Horizon 2020 programme. Income from Framework Programmes fluctuates annually over the course of the Programme. Horizon Europe, which will run from 2021 to 2027, is approximately 30% larger than its predecessor, Horizon 2020 (2014 – 2020). For data see annex 2 Royal Society (2019) *Royal Society submission to the Sir Adrian Smith call for evidence on future frameworks for international collaboration on research and innovation* <https://royalsociety.org/-/media/policy/Publications/2019/31-05-19-royal-society-submission-to-sir-adrian-smith-review.pdf> [accessed 15 March 2021].
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17. BEIS (2020) *BEIS research and development budget allocations 2020 to 2021* BEIS research and development budget allocations 2020 to 2021 – GOV.UK ([www.gov.uk](http://www.gov.uk)) [accessed 8 March 2021].
18. This is an average of the net EU contribution to the UK (2015-2017) by Horizon 2020 programme. Income from Framework Programmes fluctuates annually over the course of the Programme. Horizon Europe, which will run from 2021 to 2027, is approximately 30% larger than its predecessor, Horizon 2020 (2014 – 2020). For data see annex 2 Royal Society (2019) *Royal Society submission to the Sir Adrian Smith call for evidence on future frameworks for international collaboration on research and innovation* <https://royalsociety.org/-/media/policy/Publications/2019/31-05-19-royal-society-submission-to-sir-adrian-smith-review.pdf> [accessed 15 March 2021].
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