



## Brexit, Science and Innovation: Preparations for 'No-Deal' inquiry

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### Response by the Wellcome Trust

23 January 2019

#### Summary

- Even with the best preparation, a No-Deal outcome would have a damaging impact on UK science and research, and must be avoided.
- In the short-term, No-Deal would immediately disrupt access to EU research funding, regulation affecting research, and researcher mobility.
- In the long-term, No-Deal would make the UK a less attractive place to do research, unless it is possible for the UK to cooperate with the EU on association to its funding programmes, cross-border regulation and researcher mobility.
- To manage the impact that No-Deal would have on research funding, the Government should create and fund a replacement, but this is no substitute for securing association to EU Framework Programmes.

#### Introduction

- The UK is an attractive environment to invest in, and do, research. Being able to work easily across borders is central to this appeal. No-Deal would jeopardise the UK's relationship with its largest research partner, and therefore jeopardise the nation's longstanding scientific excellence and leadership.<sup>1</sup> Writing in The Observer in September 2018, Wellcome's Director Jeremy Farrar said that if the conditions and culture in the UK are damaged, Wellcome's support is not unconditional.<sup>2</sup>
- Wellcome has been working to avoid this outcome and secure a strong deal for science and innovation. Our [Brexit and Beyond](#) report, which consulted over 200 organisations and individuals across Europe, sets out how we think this can be achieved.<sup>3</sup>

## What a No-Deal Brexit would mean for the science and innovation community

#### Funding

1. EU Framework Programmes provide UK-based researchers with a ready-made platform for cross-border collaboration. Currently, six of the UK's top ten international partners are also members of Framework Programmes.<sup>4</sup> Without inclusion in these programmes, the UK would be excluded from key networks, collaborations and further sources of funding and infrastructure, jeopardising the UK's scientific excellence.<sup>5</sup>
2. In the short-term, leaving without a deal will end the UK's membership of Horizon 2020 from 29 March 2019. This would damage UK science and disrupt research collaborations across Europe. The Government's promise to underwrite EU funded projects, submitted

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<sup>1</sup> <https://wellcome.ac.uk/sites/default/files/building-strong-future-european-science-brexit-beyond.pdf>

<sup>2</sup> <https://www.theguardian.com/commentisfree/2018/sep/30/No-Deal-brexit-would-stall-nhs-medical-revolution>

<sup>3</sup> <https://wellcome.ac.uk/sites/default/files/building-strong-future-european-science-brexit-beyond.pdf>

<sup>4</sup> [www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2017/government-brexit-priorities-universities.pdf](http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2017/government-brexit-priorities-universities.pdf)

<sup>5</sup> <https://wellcome.ac.uk/sites/default/files/brexit-and-beyond-impact-case-studies-201810.pdf>

while we are an EU member, provides some certainty.<sup>6</sup> However, grant applications have long lead times, so researchers who are working on applications that are not yet submitted would be left without this funding source.

3. In the long-term, the gaps left by EU funding must be filled as 11% of grant income in UK universities comes from EU sources, providing a valuable addition to the UK research funding system.<sup>7</sup> There are two long-term options for this. The best option is for the UK to seek associate membership of the Framework Programmes (see paragraphs 14-15). In our consultation we heard how Framework Programmes are the most effective multilateral funding schemes in the world, and are at the heart of national research spending plans across Europe. The UK could struggle to rapidly replicate the international prestige of these Programmes, or find partners with additional budget for bilateral deals.<sup>8</sup> However, associate membership may be challenging, so the alternative option is to create a replacement domestic scheme. This could seek to replicate the features of EU funding, though it would involve significant costs and logistical challenges.

## Regulation

4. Shared standards reduce the cost of collaboration and resource-sharing, and generate more meaningful results by expanding sample sizes and the scope of research projects. No-deal would jeopardize the shared regulatory system that allows European researchers to collaborate easily.
5. In the short-term, EU regulations would be put into UK law through the Withdrawal Act. However, No-Deal would still disrupt research as the UK will no longer be a part of regulatory systems. For example, under Clinical Trials Directive, the Medicines and Healthcare products Regulatory Agency (MHRA) would lose its role as a competent authority to inspect and report on UK-sponsored EU clinical trials. This will create uncertainty and additional bureaucracy for the two in five UK clinical trials that are run at sites in the EU.<sup>9</sup>
6. The free-flow of personal data across borders has been vital to collaboration in health research. Without a deal, the UK would fall back to third country rules for data sharing, where all EU-UK data sharing requires an individual legal basis. This would be burdensome for researchers, who often lack legal support, and it would be challenging to put these legal bases in place for 29 March 2019. This would compromise data sharing for health research, for example there are typically around 2,500 requests a year from EU27 countries for access to data from the UK 1958 Birth Cohort.<sup>10</sup>
7. In the long-term, the UK could still seek to cooperate with the EU on research regulation, including adequacy for data sharing and full participation in the EU clinical trials system, to reduce the uncertainty and additional burden. However, it is very difficult to see the UK being able to negotiate the same depth of regulatory collaboration in No-Deal.

## Researcher mobility

8. Collaboration and international partnerships are the basis of great science in both the UK and the EEA. Collaborative publications generally have more impact, and over half the UK's collaborative papers are with EU partners.<sup>11,12</sup> An international survey by the [Together Science Can](#) campaign showed that 82% of European researchers surveyed

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<sup>6</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/766510/horizon-2020-government-overview-december-2018-update.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/766510/horizon-2020-government-overview-december-2018-update.pdf)

<sup>7</sup> [www.universitiesuk.ac.uk/facts-and-stats/data-and-analysis/Documents/patterns-and-trends-2017.pdf](http://www.universitiesuk.ac.uk/facts-and-stats/data-and-analysis/Documents/patterns-and-trends-2017.pdf)

<sup>8</sup> <https://wellcome.ac.uk/sites/default/files/building-strong-future-european-science-brexit-beyond.pdf>

<sup>9</sup> Communication from the Medicines and Healthcare products Regulatory Agency

<sup>10</sup> [www.cancerresearchuk.org/sites/default/files/main\\_report\\_v8.pdf](http://www.cancerresearchuk.org/sites/default/files/main_report_v8.pdf)

<sup>11</sup> [www.cancerresearchuk.org/sites/default/files/uk\\_and\\_eu\\_research\\_full\\_report\\_v6.pdf](http://www.cancerresearchuk.org/sites/default/files/uk_and_eu_research_full_report_v6.pdf)

<sup>12</sup> [www.royalsociety.org/~media/policy/projects/eu-uk-funding/phase-2/EU-role-in-international-researchcollaboration-and-researcher-mobility.pdf](http://www.royalsociety.org/~media/policy/projects/eu-uk-funding/phase-2/EU-role-in-international-researchcollaboration-and-researcher-mobility.pdf)

had trained or worked in more than one country, and most within Europe rather than outside it.<sup>13</sup>

9. In the short-term, No-Deal would cause uncertainty regarding travel and residency rights that could inhibit researchers' ability to share expertise across borders.
10. Uncertainty regarding researcher mobility under No-Deal risks a decline in talent coming to the UK. We have already heard from several researchers moving abroad because of uncertainty over Brexit. In the last year, the proportion of EEA researchers applying for Wellcome's early career schemes fell by 14%, while the Wellcome Sanger Institute saw a near 50% drop in postgraduate applications from EU nationals.<sup>14</sup>
11. This message was echoed by Professor Bart de Strooper, Director of the UK Dementia Research Institute, who warned that bright young scientists will no longer come to do research in the UK.<sup>15</sup> Wellcome's recent [case studies](#) feature Professor De Strooper and Professor John Hardy's research towards winning the Brain Prize, an achievement which would not have been possible without international collaboration.<sup>16</sup>
12. To mitigate the impact on researcher movement, we recommend a reciprocal agreement between the UK and EU on continued mobility for the science workforce. The political declaration opens the door to this approach, but this would be far more challenging to negotiate if there is No-Deal (see Annex 1).

## **The adequacy of what the Government and its non-departmental public bodies are doing to prepare for such an outcome**

### **Funding**

13. We welcome the Horizon 2020 underwrite guarantee.<sup>17</sup> However, replacement funding and mechanisms would also be needed to cover future grant proposals in a No-Deal scenario. Replacement funding will take time to create, so planning and financial commitment are needed now to provide certainty and enable researchers to plan.
14. The UK could still try to associate to Horizon 2020 in a No-Deal scenario, but this would take time to negotiate, leaving a gap. It may not be achievable by the end of the programme in December 2020. Further, there is not a clear legal basis for UK association. Article 7 of the Horizon 2020 regulation lays out the conditions for third country association, and it is unclear if the UK meets any of the three eligibility criteria.<sup>18</sup>
15. In the longer-term, it should still be possible for the UK to negotiate association to Horizon Europe, as the legislation is expected to create a path for this. However, it is likely to be more difficult to negotiate in a No-Deal scenario than under a defined future relationship, as the political declaration creates clear scope for this (see Annex 1).

### **Regulation**

16. We were encouraged by the No-Deal technical notices for clinical trials, which clearly state which regulations will remain in force, and how the UK will align with those that it will no longer be a part of.<sup>19</sup> However, it remains unclear how those aspects that would

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<sup>13</sup> [https://www.rand.org/pubs/research\\_reports/RR2690.html](https://www.rand.org/pubs/research_reports/RR2690.html)

<sup>14</sup> Wellcome grant data

<sup>15</sup> <https://www.theguardian.com/society/2019/jan/20/bart-de-strooper-uk-dementia-research-institute-biologist-brexit-fears>

<sup>16</sup> <https://wellcome.ac.uk/sites/default/files/brexit-and-beyond-impact-case-studies-201810.pdf>

<sup>17</sup> <https://www.gov.uk/government/publications/horizon-2020-funding-if-theres-no-brexit-deal/horizon-2020-funding-if-theres-no-brexit-deal-2>

<sup>18</sup> <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0104:0173:EN:PDF>

<sup>19</sup> <https://www.gov.uk/government/publications/how-medicines-medical-devices-and-clinical-trials-would-be-regulated-if-theres-no-brexit-deal/how-medicines-medical-devices-and-clinical-trials-would-be-regulated-if-theres-no-brexit-deal>

rely on EU cooperation would work in practice. For example, we are concerned about how the European Commission may address pan-EU trials sponsored in the UK.

### **Researcher mobility**

17. We welcome the Government's intention for EEA nationals to stay in event of No-Deal, and the settled status proposals. We also welcome the preparations in various member states to guarantee the rights of UK nationals in the EU. However, clarity is needed on what steps will be taken to protect EEA citizens' rights in the event of No-Deal.<sup>20</sup>

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*Wellcome exists to improve health by helping great ideas to thrive. We support researchers, we take on big health challenges, we campaign for better science, and we help everyone get involved with science and health research. We are a politically and financially independent foundation.*

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<sup>20</sup>[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/762222/Policy\\_paper\\_on\\_citizens\\_\\_rights\\_in\\_the\\_event\\_of\\_a\\_no\\_deal\\_Brexit.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/762222/Policy_paper_on_citizens__rights_in_the_event_of_a_no_deal_Brexit.pdf)

## Annex 1 – Brexit and Beyond: Wellcome analysis of the Political Declaration on the Future Framework for UK-EU relations

	Ask	Future Framework Text	Analysis
Process	The <b>key issues for science should be addressed in negotiations on the future relationship or in a stand-alone science agreement</b> as soon as possible.	<p><b>FF A.121:</b> The Parties may also decide that an agreement should sit outside of the overarching institutional framework, and in those cases, should provide for appropriate governance arrangements.</p> <p><b>FF A.122:</b> The Parties note that the overarching institutional framework could take the form of an Association Agreement.</p>	The declaration leaves the door open for a science and research agreement. This could sit outside of the wider agreement or be a pillar in an association agreement. Regardless of the mechanism, <b>agreeing a research relationship as soon as possible would give researchers much needed certainty.</b> With interest from both sides to cooperate on science agreement can set a positive tone for negotiations and help build trust on issues with less common ground.
Funding	The UK and EU should commit to UK <b>participation in Horizon Europe</b> as an associate country.	<p><b>FF A.11:</b> The Parties will establish general principles, terms and conditions for the United Kingdom’s participation in Union programmes, subject to the conditions set out in the corresponding Union instruments, in areas such as science and innovation.</p> <p><b>FF A.12:</b> These should include a fair and appropriate financial contribution, provisions allowing for sound financial management by both Parties, fair treatment of participants, and management and consultation appropriate to the nature of the cooperation between the Parties.</p>	<p><b>The path is clear for UK membership of EU Framework Programmes.</b> In her speech at Jodrell Bank the Prime Minister, was clear on the UK’s intent to pursue associate membership, while EU figures have welcomed continued cooperation.</p> <p>The legislation for the next Framework Programme, Horizon Europe, is not yet agreed. As such there is no mention of Horizon Europe in the future framework. <b>Both parties must now commit to the UK’s participation in Horizon Europe</b> as an associate country, covering the entire programme.</p>
Regulation	The UK and EU should continue to <b>cooperate on pre-competitive research regulation.</b>	<b>FF A.14:</b> The Parties should engage in dialogue and exchanges in areas of shared interest, with the view to identifying opportunities to cooperate, share best practice and expertise, and act together, including in areas such as culture, education, science and innovation.	The document does not address life sciences regulation. Both sides have committed to a shared dialogue in areas of mutual interest. However, the UK and EU must go further than dialogue to ensure that researchers can continue collaborating and working under the same set of rules and regulations.
Regulation	The <b>free flow of personal data for research</b> should be maintained through a comprehensive ‘adequacy’ agreement.	<p><b>FF A.8:</b> Parties are committed to ensuring a high level of personal data protection to facilitate such flows between them.</p> <p><b>FF A.9:</b> the European Commission will start the assessments with respect to the United Kingdom as soon as possible after the United Kingdom’s withdrawal, endeavouring to adopt decisions by the end of 2020.</p>	The future framework confirms that the EU will look to use traditional adequacy assessments to share data with the UK. <b>While the commitment to adequacy is encouraging, the timelines (looking to 2020) must be improved</b> to provide legal certainty - business and researchers plan over the long-term.

Regulation	The UK should participate in the EU's harmonised <b>clinical trials system</b> on a similar basis to Member States.	<b>FF A.24:</b> The Parties will explore the possibility of cooperation of UK authorities with Union agencies such as the EMA.	Neither document rules out a close relationship for clinical research regulation, but both sides need to agree the basis for cooperation. With no explicit mention of clinical trials yet, negotiations should begin on 'in principle' <b>UK access to the new EU clinical trials portal and database</b> (implemented as part of the EU Clinical Trials Regulation). This would give certainty on clinical trials, which are often planned years in advance. One way to achieve this would be to <b>include clinical trials in a research and innovation relationship, not the economic partnership.</b>
Mobility	<b>Reciprocal arrangements on full researcher mobility</b> should be implemented in the UK through a quick and easy system for EEA nationals, as well as a fit-for-purpose visitor route.	<p><b>FF A.51:</b> The mobility arrangements will be based on non-discrimination between the Union's Member States and full reciprocity.</p> <p><b>FF A.53:</b> The Parties agree to consider conditions for entry and stay for purposes such as research, study, training and youth exchanges.</p> <p><b>FF A.52:</b> In this context, the Parties aim to provide, through their domestic laws, for visa-free travel for short-term visits.</p>	The text appears to offer the possibility of a research mobility 'carve out' based on reciprocity. Both sides must now <b>work together to ensure that full researcher mobility between the UK and EEA is included in the deal.</b> This should also include short-term visits for research purposes, such as attending conferences, using research facilities or learning new techniques.

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