March 2019

What would leaving the EU with No Deal mean for science and innovation?

A briefing on 'no deal' and its possible effects on UK chemical sciences.

Summary

A 'no deal' exit from the EU would have profound, negative consequences for the UK chemical sciences with regards to, but not limited to, three main issues, all interlinked and playing an important part in UK science's success:

- Participation in EU funding programmes
- The mobility of scientists
- The future of chemical regulations for the UK

We are clear that 'no deal' is not in the interests of chemical sciences.[1] We believe that it would undermine the reputation of UK science and innovation, as well as damage our influence and status as a world leader.

*In a survey nearly 5,800 members of our chemical sciences community responded to, **84% think 'no-deal' would be negative for UK science and innovation**, compared to less than 5% who think it would be positive.*

Funding and collaboration

A loss of funding from the EU is more than a loss of money

1. **An immediate impact of leaving the EU without a deal would be loss of access to the current framework programme, Horizon 2020.** The Government's guarantee to underwrite this funding only covers some of the current competitive bids awarded and may leave a particular shortfall for fundamental, curiosity-led research through loss of access to the prestigious European Research Council.

*The UK has received **€5.1bn** from Horizon 2020 so far.*

*UK university chemistry departments received **29% (£65m)** of their funding from EU government sources in 2015/16.*

2. **Access to the international collaborative networks, knowledge and expertise, equipment and facilities that the framework programmes offer are also vital for the success of UK research, and difficult to replicate within the UK.** This represents a more long-term risk of leaving the EU with 'no deal' for both the UK and the EU. For example, bringing together people with specialist skills not found in any one country and accessing EU-wide collaborative networks are vitally important for cutting edge research, such as the PharmaSea project, which is developing potential new drugs for Alzheimers and Epilepsy.[2]

*Survey respondents identified access to **international collaborative networks, expertise & knowledge and facilities & equipment** as some of the most important aspects of public R&D funding to enable them to do their best work.*

3. **A longer-term impact is that in a 'no-deal' scenario, there is a real risk that associating to the next EU framework programme, Horizon Europe, would become difficult, if not impossible.** With 1 in 5 Horizon 2020 projects led by UK researchers between 2014 and 2016, this will represent a loss for both the UK and the EU.

***75%** of respondents to our survey think **EU framework programmes benefit UK science and innovation**, compared to less than 5% who think its impact is negative.*

Mobility of scientists and researchers

UK science's success reflects its access to talent from around the world

4. **We are clear that simply expanding the current non-EEA visa system is not in the interests of UK chemical sciences.** Any future immigration system must be flexible, light-touch and low cost. This will enable UK science and innovation to continue to attract top talent from around the world. The current visa system used for non-EEA nationals is none of those things, making it harder to do so.

***84%** of respondents to our survey think **freedom of movement benefits UK science and innovation**, compared to around 5% who think its impact is negative.*

[1] http://www.rsc.org/news-events/opinions/2019/jan/why-no-deal-is-bad-for-science/, January 2019
[2] http://www.rsc.org/globalassets/04-campaigning-outreach/policy/international-collaborations-create-chemistry/rsc_pharmasea_casestudy_2018.pdf, October 2018

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5. **Particularly for SMEs and research institutions, the current visa system is time consuming, complicated and expensive.** Around a third of staff in UK university chemistry departments are non-UK nationals, 18% are non-UK EU nationals. A similar intake in the event of no deal would more than double the visa application workload for employers. To minimise disruption for those most at risk, it is essential the Government's new visa system is low cost and efficient, regardless of whether or not a deal is agreed.

__75%__ of managers in our survey think the proposed new visa route would __negatively affect the UK's ability to attract the right talent__ for science and innovation.

6. **If it becomes more difficult for UK scientists to work or study abroad, the UK's science and innovation sector would be weakened.** There is a serious risk they will have less of a role in the international community, less exposure to and sharing of new ideas and knowledge. It is vital that Governments' policies enable easy mobility for scientists, so they can do great science that benefits current and future generations.

__63%__ of respondents to our survey living in the UK said that __freedom of movement had positively affected their careers__.

7. **Scientists and researchers are highly mobile people; they may look elsewhere if they do not feel welcome.** This is why a welcoming and open attitude is so important. Currently, the UK is a global leader in science and innovation and this has in part been built on welcoming talent from across the world to establish a career in the UK. But this is not a given. If the UK visa system is too expensive and time-consuming, they may see the UK as a less welcoming place to work.

Chemicals Regulations

Collaboration is at the heart of a confident and safe regulatory and business environment

8. **In the event of 'no deal', UK and EU decision-makers would immediately lose access to each other's scientific networks and databases that provide data and information into regulatory decision-making**. Scientific collaboration is at the heart of effective and harmonised chemicals regulation, which is critical for frictionless trade in the chemicals sector. Scientists provide decision-makers with the best information on the risks and impacts of chemicals on health and the environment, enabling them to balance these with economic and other factors.

9. **Harmonised rules and standards are the way forward for chemicals regulation.** For the benefit of frictionless trade in the EU, the UK must closely align and comply with EU chemicals regulations. Together, a deal with the EU and work on the international stage would move towards achieving internationally harmonised rules and standards for the benefit of long-term global trade and public health and environmental protection.

__88%__ of respondents to our survey said the UK should __prioritise harmonising regulations, globally or with the EU__.

__Only 4%__ said the UK should __prioritise developing its own rules and standards__.

10. **It is clear that there will be significant impact of 'no deal' on businesses in the chemicals sector, in particular small and medium enterprises whose main markets are in the EU.** The RSC will continue to provide support to the community in this area, but we remain concerned that SMEs do not have the regulatory in-house experience to mitigate these effects and are therefore most exposed. Government must be effective in disseminating the changes SMEs will face so they remain compliant with chemicals law.

Contact

The Royal Society of Chemistry would be happy to discuss any of the issues raised in our response in more detail. Please direct questions to Tanya Sheridan or Matt Davies at policy@rsc.org.

About the Royal Society of Chemistry

With about 50,000 members and a knowledge business that spans the globe, the Royal Society of Chemistry is the UK's professional body for chemical scientists, supporting and representing our members and bringing together chemical scientists from all over the world. Our members include those working in large multinational companies and small to medium enterprises, researchers and students in universities, teachers and regulators.

