https://doi.org/10.1038/s43018-022-00485-9

Science in a post-Brexit gridlock

As the UK's feud with the EU over their post-Brexit trade agreement continues, science must not become collateral damage.

In Greek mythology, Kassandra was given the gift of prophecy but was cursed never to be believed. Her plight comes to mind when thinking of the many scientists who forewarned that Brexit would be detrimental to the UK's science edifice. Six years after the fateful Brexit referendum and almost three years after the UK left the European Union (EU), UK scientists face the grim possibility of being excluded from EU grants as they find themselves caught up in the ongoing fight over the EU–UK Trade and Cooperation Agreement — the post-Brexit deal signed by the two sides in 2020.

Back in 2016, pre-eminent UK scientists including recipients of the Nobel prize and the president of the Royal Society (the UK's national academy of science), and the grassroots campaign of Scientists for EU warned that going it alone could endanger the country's leading position in science by reducing funding (10% of which was sourced from the EU at the time), discouraging European scientists from working in the UK, reducing the international collaborations that have become a cornerstone of modern research and losing the UK's coveted seat at the table of EU regulatory and policy decisions.

The government's Brexit architects were unsuccessful in assuaging these fears in the years that followed. The European Medicines Agency relocated from London to Amsterdam in 2019 and formally stopped being the UK's regulatory agency after the UK's EU exit in 2021, with all the complications this signifies for medicines regulation. The immigration status of tens of thousands of European researchers became clouded by uncertainty, and the willingness of many Europeans to navigate the complicated and expensive UK immigration systems waned. The term 'Brexodus' — the post-Brexit brain drain — entered the colloquial vocabulary. Discussions heated up not just about the type of exit deal that the UK would broker with the EU, but also about whether a deal would even be made. Faced with the prospect of crashing out of the EU, scientists continued to warn that a no-deal Brexit would have dire consequences.

The signing of the trade agreement that, if ratified, would allow the UK to continue to participate in the EU's Horizon Europe funding program, led to a short interlude of optimism that ended abruptly owing to the UK's intention to renege on one of the key aspects of the deal — the trade status of Northern Ireland. The row escalated in April 2022, when the European Research Council notified UK grantees that unless the UK–EU trade deal was ratified, or they moved to an EU country, they would lose access to funds. The UK government soon announced its 'plan B' — an "alternative which will seek to draw on the best features of Horizon and add some improvements". That was five months and three UK prime ministers ago, so whether and how this plan will materialize remains to be seen.

At the time of writing, the impasse about the EU trade deal and access to Horizon Europe persists without a clear timeframe for resolution. What is clear is that barring UK researchers from the EU's funding schemes would be a huge loss not only in terms of lost funds, but also owing to the disruption in international collaborations, many of which take the form of joint grants, and an incalculable setback to research and researchers' careers.

As far as Brexodus is concerned, the previous Boris Johnson government did implement immigration changes to try to attract the world's top scientists, such as the Global Talent visa in 2020. Designed for promising individuals in areas including science, applicants had to seek endorsement from one of six approved bodies such as the Royal Society or the UK Research and Innovation agency. In 2021, a fast-tracked visa route was announced to encourage Nobel prize laureates and other award winners in fields including science, engineering and medicine. However, the scheme was unsuccessful, receiving no applications in its first 6 months and only one single successful applicant during its first year.

The current Prime Minister Rishi Sunak, when speaking about visa options to accommodate international talent in his previous incarnation as chancellor, stated that "A third of our science Nobel Laureates have been immigrants. Half of our fastest growing companies have a foreign-born founder. So, an economy built on innovation must be open and attractive to the best and brightest minds", indicating a desire to maintain the UK's status as a multicultural hub of development and innovation. He may have his work cut out for him. Winter is coming, and this year it is forecasted to be grim, with a looming economic recession fueled by the perfect storm of the COVID-19 pandemic, the global repercussions of the Russian invasion of Ukraine, unrestrained inflation, and for the UK economy the near-catastrophic premiership of Liz Truss. All this threatens to make the UK a less attractive destination for the best and the brightest and less likely to support big research funding initiatives by the government.

The repercussions of cutting the ties of UK and European research are not limited to UK science. The lost opportunities for collaboration, education, training and cross-pollination of ideas will be harmful to both sides, especially during the age of multidisciplinary research that supports diversity and inclusion, against isolationism and exclusionary practices. For the mosaic of European countries that differ widely in their scientific capacity and output, losing the UK — a partner with an unparalleled tradition in academia, science and research — would be a devastating blow.

Putting scientists and research funding in the middle of a high-level, complex disagreement of governing bodies over trade and international law, does not help anyone and may stunt research progress across the European continent. If we have learned something from the COVID-19 pandemic, it is that we need to protect and support science, transcending politics. The hope remains that both sides will keep this in mind as they seek a solution.

Published online: 25 November 2022