The United Kingdom’s scientific research community reacted with concern when Britain voted to leave the EU on June 23 of this year. Many in the community had campaigned against “Brexit,” as the leave campaign became known, on the grounds that the UK is a major beneficiary of the EU’s support for research. One pre-ballot poll found that 93% of research scientists and engineers thought that the EU was a “major benefit” to UK research. The science community’s fears seemed to have foundation. Within days of the referendum, researchers were reporting a backlash among their European counterparts. European researchers working in the UK also began to worry about their future, and the risk that they would have to leave when Brexit finally happens.

One sign of the feeling within the UK’s research community came when Britain’s newest Nobel laureate, Sir J. Fraser Stoddart, joint recipient of this year’s chemistry Prize for his work on the design and synthesis of machines on a molecular scale, found himself in demand by the media. He used his sudden fame to protest the likely impact of Brexit on the UK’s science community. He told the BBC that international collaboration had been “absolutely critical” to his own successes. “Today I am distressed that the UK is looking at a situation where it would cut off that supply. This is not good news…. I would hope that this whole business of Brexit would just go away or had not happened.”

The UK may contribute more to the EU’s budget than it gets back, a major issue in the referendum campaign, but this is not true for research. Before the referendum, The Royal Society, the UK’s leading learned society, pointed out that between 2007 and 2013 the UK contributed €5.4 billion to EU research and development. “During this time, the UK received €8.8 billion in direct EU funding for research, development and innovation activities.”

Financial support for research comes mostly through a series of five-year Framework Programmes. (The exact duration depends on how long the EU’s 28 member governments take to agree on what they want to do.) In the Seventh Framework Programme (FP7), from 2007 to 2013, the UK received around €7 billion. The EU is now awarding grants for the next Framework Programme, known as Horizon 2020, with a budget of €74.8 billion for the period 2014–2020.

The UK’s success rate in bidding for funds in FP7 was 22.8% against an EU average of 20.5%. According to The Royal Society, 71% of the funds awarded to the UK during FP7 went to universities. A survey by the Campaign for Science and Engineering (CaSE) and the Engineering Professors’ Council (EPC) found that EU government sources made up 10% of income in higher education institutions in 2013 to 2014.

The UK also ranked second, after Germany, among the 28 member states in the number of participants and cash received. According to The Royal Society, “EU research funding through Framework Programme 7 represented

If the UK leaves the EU it could affect the freedom of researchers to move between the UK and EU countries. Currently, researchers of Sir Colin Humphreys’s gallium nitride group at the University of Cambridge come from Germany, Ireland, The Netherlands, and France as well as China and Iran. He credits his ongoing international team for research that is “being exploited by the UK industry Plessey, which is manufacturing LEDs using our technology at its factory in Plymouth, UK.”
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The timetable for Brexit remains unclear. The government has said that it will begin the process in March 2017. In theory this fires the starting pistol on a two-year process, but few expect the UK to have completed negotiations within that period, with trade and migration at the top of the agenda.

As yet the research community has little idea of where it will stand when the UK finally leaves the EU. The only clue so far is a Treasury statement that “we expect to ensure that close collaboration between the UK and the EU in science continues.”

The UK government will come under pressure to break its silence on its post-Brexit plans for research. The House of Lords Science and Technology Select Committee is conducting a follow-up inquiry to its earlier pre-ballot report “EU membership and UK science.” An early witness pointed out that Brexit coincided with a major change in the organization of science management in the UK. The government is merging the existing Research Councils and Innovate UK, previously the Technology Strategy Board (see the August 2016 issue of MRS Bulletin, p. 584), into a single body, UK Research and Innovation (UKRI).

John Womersley, Chief Executive, Science and Technology Facilities Council and Chair of the European Strategy Forum on Research Infrastructures, expressed the view that many in the scientific community hope that “UKRI will be strong advocates for science and research, in particular what science and research needs the Government to negotiate on in the context of Brexit.”

At press time, MRS Bulletin received notice that the House of Lords Science and Technology Select Committee published a letter from Jo Johnson and Robin Walker, MP, Parliamentary Under Secretary of State for Exiting the EU, stating that “Jo Johnson will be writing to a number of senior representatives of UK research and innovation to invite them to join a consultative forum to discuss opportunities and issues arising from the UK’s exit from the European Union.”

It looks like the UK’s research sector is in for interesting times.

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