

## Don't hang UK science

**The formation of a coalition government led by David Cameron has ended the uncertainty following the general election in the United Kingdom. Although the challenges facing a coalition government are immense, securing the future of UK science must remain a priority.**

As no single party won the clear majority needed to form the next UK government, the country now faces the reality of a coalition government formed from the rival Conservative and Liberal Democrat parties, with the leader of the Conservative party, David Cameron, as prime minister. A hung parliament has been proclaimed by many political observers as essential to renew the public's faith in the political process and to revitalize key national institutions. But whether this outcome will prove to be beneficial for the future of UK science remains to be seen.

Although science policy took a back seat in the election campaign to other hot-button issues such as the economy and immigration, the Campaign for Science and Engineering (CaSE) — a voluntary organization funded by scientists — invited the three main parties to clarify their position on how to secure the UK's future as a leader in research and technology. All three — the Conservatives, Labour and the Liberal Democrats — recognize the importance of preserving the UK's position as a leading scientific nation in an increasingly competitive global environment. They agree that securing a stable science budget and improving science education must be a priority, and promise to implement necessary changes to achieve this goal. However, although the Labour government has implemented the controversial Research Excellence Framework, an evaluation system that also assesses the economic and societal impact of research projects when allocating funding, the Conservatives and the Liberal Democrats are opposed to linking funding decisions to uncertain impact predictions. Labour and the Conservatives alike promised to strengthen industrial innovation by providing research and development tax credit to startup companies while the Liberal Democrats's agenda for innovation focused on developing technologies for green energy. It remains to be seen how such policies will fare in the new coalition.

Earlier this year, the Royal Society, the UK's national academy of science, published a white paper entitled "The scientific century: securing our future prosperity". The report emphasizes the UK's position as an internationally competitive scientific nation. The ability of the UK and its premier universities to attract foreign scientists, from both the academic and industrial research and development sectors, are key strengths. For the UK to retain this competitive advantage, the Royal Society makes several broad recommendations

that include promoting science and innovation for long-term economic growth, prioritizing investments in a high-quality science workforce, maintaining the UK as a hub for international science and improving the government's use of science.

In the wake of the recession, many countries, including the United States, France, Germany and China, have invested in science and technology in the belief that it is an important measure for resolving the current economic crisis. India and Brazil are also pouring money into research and science education. Thus, it is essential for the UK to maintain long-term investment so as to retain its competitive edge and global position. Faced with a crippling deficit, the new government will undoubtedly have to make broad spending cuts, and the science budget will probably suffer despite recommendations from the Royal Society and the CaSE that it must be secured to provide the necessary stability to long-term research programmes. The Royal Society's report also underlines the need to instigate long-term investment in high-calibre researchers partly by directing funding towards investigator-led rather than project-based research, similar to the Howard Hughes Medical Investigator awards in the United States. But a shift in funding must be accompanied by an increased budget for research or the many laboratories that rely on research-council-funded projects will suffer financially.

The Royal Society's report notes that the UK is a centre for international research; it has a high number of international collaborations and publications with non-UK-based co-authors, and a significant number of non-British researchers, including graduate students and postdoctoral fellows, work here. The UK must continue to be an attractive destination for the best minds around the world and, to this end, the Royal Society advises that the process for obtaining visas for students and highly qualified research scientists be simplified. They also recommend increasing funding opportunities for existing international research networks supported by the government, which might be difficult if budgets stall.

It is also crucial that the government continues to obtain independent scientific advice of the highest quality. Following the dismissal of the drug advisor David Nutt earlier this year, the research community and prominent science societies have asked the government to reform the process for seeking independent scientific advice. The Royal Society and the CaSE also urge the government to include a scientific advisor to the treasury to ensure that science remains centre-stage in economic policy. Parliamentarians must engage more deeply with science to better enable them to make informed policy decisions on science issues of the day. Of note, the CaSE had been inviting prospective MPs to blog on the CaSE website.

The new UK government faces immense challenges ahead and tough compromises will no doubt have to be made in the current economic climate. Nonetheless, we urge the government to act in the long-term interests of keeping UK science strong.