

Policy Priority Survey 2019

Summary report

As a trusted and authoritative voice, the Royal Society of Chemistry (RSC) aims to ensure that chemistry has a recognised and influential role in science and society. One of our aims is to influence decision makers in areas that impact the chemical sciences, via our policy work. 'Policy work' is when we advise decision-makers, particularly governments, parliamentarians, officials in government departments and executive agencies (for example Ofsted) on **decisions related to the chemical sciences**. In July 2019, we sent out a survey seeking views from our members and a sample of our global author base on what our science policy priorities should be for 2020 and beyond, to inform this part of our work. In total, 2948 people responded, although about two fifths of respondents did not answer all the survey questions, so sample size varies by question.

Survey results

The survey sought views on 7 broad policy areas where the RSC has an impact. To find out which policy areas people felt were important to the chemical sciences, we asked people to give each area a score between 0 and 10, where 0 was not important and 10 was extremely important. The score distributions for the broad policy areas are shown in Figure 1. We also gave respondents an opportunity to suggest policy areas which they felt were more important than the broad areas we had suggested (Figure 2).

When we asked people about the importance of the broad policy areas, many of the areas received a large number of 9 or 10 ratings and some free text comments said respondents felt all the issues were important. Even though policy work around inclusivity in research culture and workforce and skills came out as lower priorities, neither appeared unimportant to participants overall, with 31% and 37% respectively scoring them at 9 or 10.

Broad policy areas in the survey

- Chemistry workforce and skills policies
- Mobility for chemists, particularly immigration and visa policies
- Sustainable chemicals management
- Showing how chemistry is helping tackle global and societal challenges
- Ensuring a smooth transition to open access science
- Improving research culture in science to make it more inclusive
- Funding for research, collaboration and innovation in chemistry, including public funding

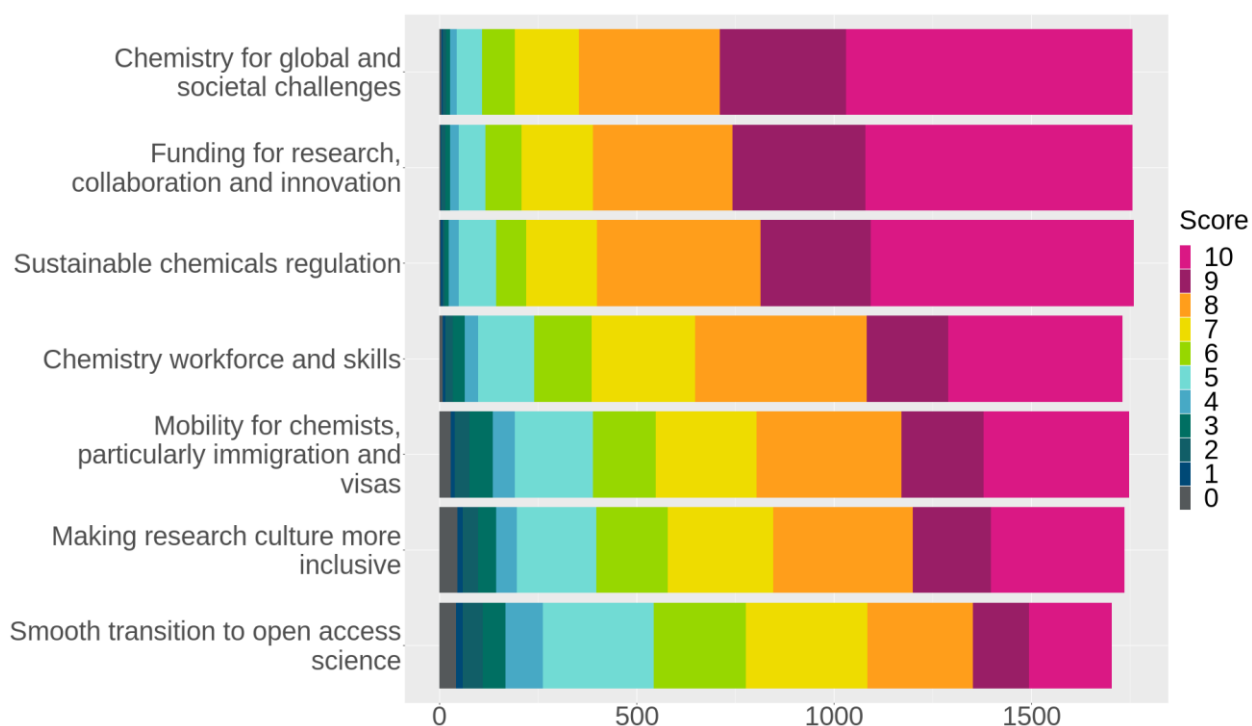


Figure 1. Score distributions for the broad policy areas.

Global challenges

Throughout the survey the role of chemistry in tackling global challenges around the environment and health, related to the United Nations Sustainable Development Goals, emerged as the highest priority. Notably, there appeared to be some ambiguity in this question, as the free text responses indicated that people interpreted it in different ways. Some people focused on the importance of communicating to the public or policy makers how science is helping to tackle global challenges, and some focused more on advocacy for action on the global challenges themselves. Respondents were also asked to score individual global challenges on a 0 to 10 scale for importance. The most important issues for the chemical sciences within the theme of global challenges across the survey were those relating to the environment, sustainability and climate change. These areas were one of the most common themes within free text responses and tackling climate change had the highest proportion of 9 and 10 ratings of any policy area in the survey (64%).

Sustainable chemicals management

Tying in with the importance of environmental issues, sustainable chemicals management was one of the other broad policy areas which came out as a high priority, with 54 % of respondents rating it 9 or 10. When invited to rank different aspects of this broad policy area, respondents indicated that it is important for the UK to have high standards of chemicals management with regulations that align with those in the EU. Furthermore, respondents felt it was important for such regulations to be formed on scientific advice, highlighting the need for expert input from bodies like the RSC and clear dissemination of relevant evidence. This reflected a general trend in the survey of comments stressing the importance of expert scientific input during policy formation and concern around the scientific understanding of policy makers and politicians.

Research funding

The survey also showed that policy relating to research funding is an important issue for the chemical sciences community: this received 58% of ratings at 9 or 10. Again, respondents were invited to rate individual parts of this broad policy theme on a scale of 0 to 10 reflecting importance. Policy activities that received high scores here were ensuring that research funding decisions are based on merit, and that UK research and innovation funding meets the needs of chemistry. Campaigning for the UK to associate fully to Horizon Europe, the next EU framework programme, also emerged as an important area for respondents. Additionally, when invited to rate potential campaigning activities to be considered if there is a no-deal Brexit, campaigning for UK association to EU research and innovation programmes came out as one of the highest priority activities for the RSC in the event of a no deal Brexit, with 61% 9 or 10 ratings.

Transition to open access science.

The transition to open access science was ranked lowest priority of the broad policy areas. The survey responses show polarised opinions on this topic, with some people indicating that was an important issue to them and others expressing reservations around either the RSC's role or the concept of open access publishing in general. The transition to open access received just 21% of scores at 9 or 10 and 32% respondents scored it below 6.

Mobility

General policy around immigration and mobility for chemists came out as one of the lower priority areas with just 33% of people rating it 9 or 10 and 22% rating it below 6. However, mobility became more important when discussed in relation to a no-deal Brexit and here 50% gave campaigning for UK immigration arrangements that make it easy for chemical scientists to come to the UK a rating of 9 or 10 and just 11% rated it below 6.

Other policy areas

Respondents were invited to say whether anything was more important than the 7 broad policy areas set out in the box on the first page of this note and given some options, as well as 'other-please specify'. A quarter of respondents indicated that they felt Brexit was more important than the other broad policy areas discussed. In the event of a 'no deal' Brexit, alongside full UK association to future EU framework programmes for research and innovation and UK immigration arrangements, respondents felt the RSC should prioritise campaigning for the UK to maintain and raise environmental standards and to stay aligned with EU chemicals regulation.

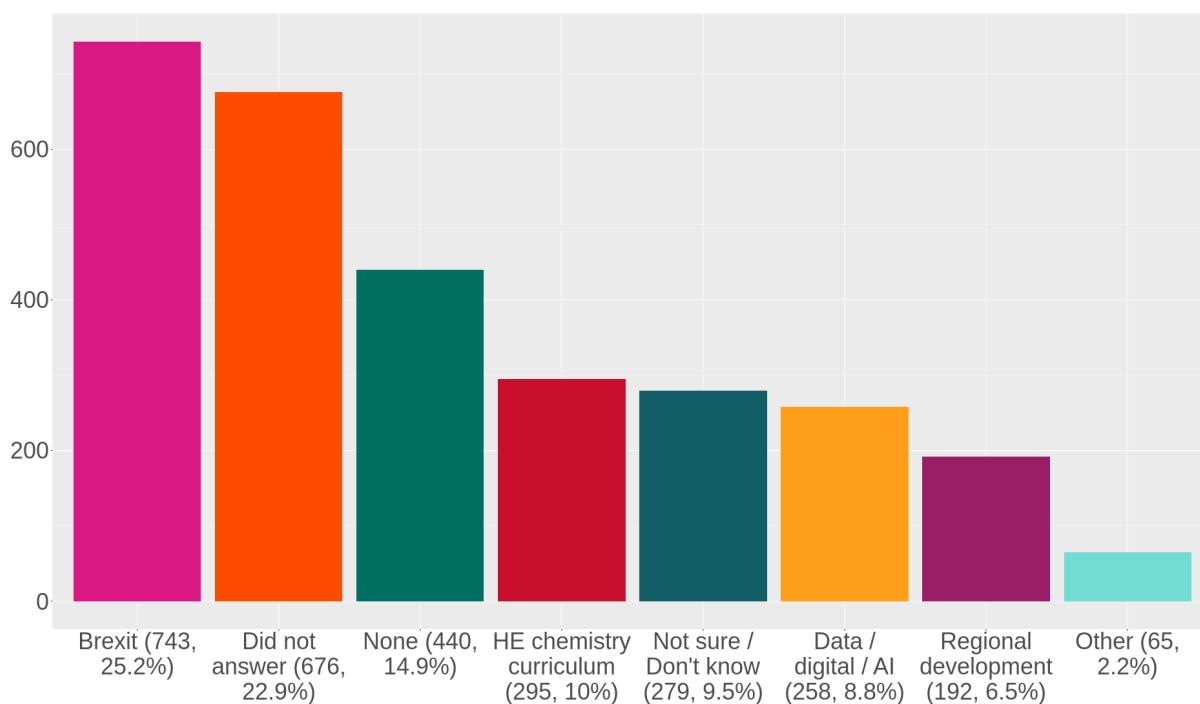


Figure 2. Policy areas which respondents felt were more important than the broad areas suggested in the survey.

Our policy priorities for 2020-2022

The results of this survey will inform our science policy priorities for 2020-22 on environment and regulation, research landscape and industry. These priorities are also informed by evidence from our February policy survey on Brexit-related work, the recently-published [Science Horizons report](#), our conversations with the decision-makers we seek to influence and with our member communities. The policy themes have now been agreed by the appropriate RSC decision-making body.

The priority areas our policy and advocacy work will focus on in 2020 to 2022 are as follows:

Chemistry workforce – skills: Research on workforce skills needs, in which we will look for opportunities to build evidence on chemistry and regional development. Research on the technical education landscape and seek to influence ongoing developments, including T-levels in England.

Chemistry curriculum, qualifications and assessments: We will continue our well-developed education policy programme by developing a vision for curriculum from primary education through to post-16 (including vocational), influencing the development of curriculum and qualifications. We will begin a programme of work to develop curriculum recommendations for undergraduate level.

Teacher recruitment and retention: Next steps in this established education policy programme include: increasing our understanding of specific recruitment and retention issues for chemistry/science teachers, and becoming a thought leader on supporting teacher subject expertise in the sciences. We are continuing our delivery of the teacher training scholarships programme in England, in partnership with the Department for Education.

Brexit: Influence [immigration](#) and mobility rules for scientists in the UK in the light of Brexit; campaign for [full UK association to Horizon Europe](#) and influence future UK Chemicals Strategy (see below).

Sustainable chemicals management: Influence UK chemicals strategy, to make sure it has strong scientific input and promotes high standards for chemicals management in the UK, that are aligned with European Union scientific advice and standards, whilst encouraging UK scientific leadership in United Nations work on chemicals management. The principles developed would also shape input to policy makers on topics currently of interest, particularly endocrine disruptors and plastics.

Highlighting chemistry's part in meeting key sustainable development goals. We will continue circular economy work on electronic wastes, building on our [elements in danger campaign](#) and promoting our [policy position on critical raw materials in electronic waste](#). We will also continue to highlight the role of chemistry in developing sustainable plastics, advocating our [policy position on plastic waste](#), which draws on [Sustainable Plastics - the role of chemistry](#). In addition, we will develop and advocate for policy positions on climate change and sustainable water. These four areas are prioritised in line with survey data and our work is supported by scientific input from RSC divisions and other member communities.

Funding: Advocating for research funding that is transparent, based on merit, independent of political priorities and timescales, meets the needs of chemistry and supports collaboration. (This covers collaboration internationally, between disciplines and between academia and industry: the Science Horizons report identified the importance of all three to the chemical sciences.) We will advocate these principles to research funders, campaign for full UK Association to Horizon Europe (see Brexit) and emphasise the importance of curiosity- driven, discovery research (also known as fundamental research).

Smooth transition to open science: Although the survey results gave this work a lower priority rating, our community consultation earlier this year showed that this issue has significant impact and that our community sees both opportunity and risk. This is an area where we should continue to advocate for a transition that minimises any negative impacts on researchers' careers and retains quality and diversity in science publishing. We will be transparent on our role as a not-for-profit publisher and continue to take account of the views of our chemistry community as we develop our policy position.

In addition to these policy priorities, we will take opportunities to disseminate our ongoing work to policy-makers in order to shape thinking on:

- Aspects of research culture, particularly inclusion and diversity
- Digital technologies in chemistry, using our white paper due in early 2020

More information on our policy work can be found on [our corporate website](#), while future updates will be published in Voice and the member networks newsletter. If you feel you have experience or expertise that could be of use to our policy work, we would like to hear from you. One way to get involved is by [joining \(EnRec\)](#), a group which helps to inform our work around chemistry in relation to the environment and regulation. We would welcome case studies on the themes discussed in this summary, particularly around chemistry and global challenges. Please get in touch via policy@rsc.org.