

Position statement

Mobility in the chemical sciences
2020

Summary

The UK immigration system must:

1. Be flexible, mirroring the changing needs of UK chemical sciences.
2. Recognise the essential value of international collaboration to UK science.
3. Recognise that innovation– and the UK economy - will always need timely access to a range of skills and knowledge.
4. Be light-touch in regulation, reflecting the limited resources many employers have to access visa processes.
5. Be welcoming in substance and attitude.
6. Be low cost, reflecting that employers and employees often do not have the resources to deal with high visa costs.

With this in mind the Government should adopt the following:

- **The new immigration system should always seek to streamline the visa application process** as much as possible so that it is accessible for employers of all sizes. It should seek to decrease associated costs and promote a welcoming attitude to attract the best and brightest.
- Science is increasingly international and is best done in collaboration across borders so scientists and researchers are able to exchange knowledge and have access to the best facilities. **The UK should seek ambitious reciprocal mobility arrangements with future trading partners** across the world in order to enable scientists to move around and to collaborate on both a long and short-term basis.

Doing so will send a powerful message that the UK is committed to its status as a global leader in science and innovation, and that it wants to attract the best and brightest from around the world.

“We want to make sure the UK continues to be at the forefront of innovation, so we need an immigration system that attracts the sharpest minds from around the globe.”^{viii}

Priti Patel, UK Home Secretary, December 2019

Background

As well as the introduction of the Global Talent Visa,ⁱ the Government will implement a points-based system from 1 January 2021, saying it will ‘attract the high-skilled workers we need to contribute to our economy, our communities and our public services’.ⁱⁱ With a clear focus on skilled workers, those applying to work in the UK will be allocated ‘points’ based on attributes such as job offer, salary and qualifications.ⁱⁱⁱ This has important ramifications for the progress of scientific research within the UK.

Why is mobility important for science?

Science is a global endeavour. Collaboration between scientists, no matter where in the world, delivers the best answers to global challenges, the most creative innovation and this can only be achieved by the smooth and easy mobility. Scientists themselves have come to expect opportunities to move around in order to collaborate, should they wish to. The past few decades has seen the UK establish itself as a global leader in science and a central node in international collaboration, meaning it has been able to attract the best scientists from around the world to work. This status has helped the UK attract additional inward investment and funding, providing resources for further collaboration and innovation.

In a survey of nearly 5,800 of our chemical sciences community, 84% of UK chemical scientists think that freedom of movement has had a positive impact on UK science and innovation.^{iv}

In the same survey, 71% of all chemical scientists, 63% of UK nationals, believe Freedom of Movement has had a positive impact on their careers.ⁱⁱ

A migration system that meets the needs of UK chemical sciences

Access

UK science and innovation needs long and short-term access to a wide variety of skills and knowledge, often at short notice. To meet this aspiration, a future UK immigration system must:

1. **Be flexible, mirroring the changing needs of UK chemical sciences.** The rapid pace of science means that flexible movement of scientists from around the world with the specialist skills and knowledge is essential. This will be crucial to the UK achieving its aim to boost spending on R&D to 2.4% of GDP by 2027.^v Both academia and industry need such a variety of skills and fish for them in global talent pools. Instead of focusing on plugging gaps in the labour market, the new immigration system should focus on helping employers attract the skills they need in a dynamic and ever-changing market.

In a recent community survey, 87% and 80% respectively of respondents said that new fees and admin for EEA/Swiss nationals would have a negatives effect on UK science and innovation^{vi}

“It’s not like hiring a doctor or a lawyer; these are areas of research where there are maybe fewer than 50 people working in them. It’s not unreasonable to say that, for this research, it would not have been able to happen without hiring from the EU.”^{vii}

Moreover, chemical scientists have come to value travel as a natural part of their work and know that this can be highly beneficial to their own careers.^{iv} It is most useful to think of the mobility of scientists not as a ‘brain drain/gain’, but as ‘brain circulation’. Enabling mobility of scientists and researchers throughout the world for both long and short-term work and research should be paramount, and as a key part of the global scientific community, the UK immigration system must accomodate this.

In a survey conducted in 2018, three quarters of respondents have moved to live in another country for research purposes.^{viii}

2. **Recognise the essential value of international collaboration to UK science.** Science is best done in collaboration and increasingly across borders.^{ix} This not only includes long-term/permanent employment but also short-term projects, working in diverse teams to meet global challenges. The

future visa system and future trading relationships must allow for scientists and researchers to move in and out of the UK for short-term research and collaboration and the UK should continually seek more access for UK-based scientists with future trading partners.

“I may be happy playing in the English Premier League but really, I want to be part of the UEFA Champion’s League. We need to be able to work alongside the best.”^{iv}

- 3. Recognise that innovation- and the UK economy - will always need timely access to a range of skills and knowledge.** It is true that plugging skills gaps in STEM is important^x: some skills are extremely rare with no guarantee they will be found in the UK, whilst^{xi} other chemistry skills are notoriously hard to locate.^{xii} However, it is more complicated than that: some jobs will exist in 6 months that do not exist now. In addition, entrepreneurs come to the UK from all over the world to invest,^{xiii} creating jobs and contributing to the economy. Creating a flexible immigration system can address future skills gaps before they happen and attract investment and, in doing so, make a positive contribution to the economy.

Framework

The UK immigration system is expensive and needs urgent streamlining so that all UK employers can access the talent they need and overseas scientists and researchers feel welcome. To meet this aspiration, a future UK immigration system must:

- 4. Be light-touch in regulation, reflecting the limited resources many employers have to access visa processes.** SMEs are an important driver of innovation but often lack the resources and infrastructure required to become a visa sponsor. Those that do hold a licence find that the application process is burdensome, with long lead times resulting in innovation stalling while companies wait for visa approvals. The system must be simplified, the application process streamlined so that it is quicker and Government must resist introducing arbitrary measures such as numbers caps. Doing so will allow greater access to the visa system, particularly for smaller but vital employers.

96% of the companies in chemical sciences are SMEs^{xiv} A third of UK start-ups were founded by non-UK nationals, 51% of UK start-up employees come from outside the UK^{xiv}

According to the Law Commission, in 2019, the rules totalled over 1,100 pages in length^{xv}

In a recent survey, 54% of recruiting managers in the chemical sciences said that visas applications typically took more than two monthsⁱⁱⁱ

- 5. Be welcoming in substance and attitude.** The science community is by definition a global and welcoming one: the UK’s success in science and innovation is in part driven by attracting the best scientists but this success is not a given and a future UK immigration system cannot take this for granted. The Government has said that highly skilled scientists, researchers and entrepreneurs should be encouraged to come here.^{xvi} The Global Talent Visa shows how visa routes can help cultivate a welcoming atmosphere for those with vital scientific skills by discontinuing arbitrary measures like caps, opening up the labour market to dependents and an easier pathway to settlement, should they wish to stay permanently. The Government must apply these lessons to the rest of the UK immigration system.
- 6. Be low cost, reflecting that employers and employees often do not have the resources to deal with high visa costs.** SMEs often do not have, or struggle to cope with, the funds needed to be a visa sponsor. In 2019, costs to a skilled scientist coming to work in the UK and their sponsor will generally cost

£8,419, more than 5 times the average cost of the equivalent visa across the leading science nations and compared to c.£120 in China, c.£170 in Germany, c.£480 in France and c.£720 in Switzerland.^{xvii} Reviewing fees that are not in the Home Office's remit or associated with visa processing, such as the skills charge or the Healthcare surcharge, would make the costs of visas for SMEs much more achievable and help ensure that the UK remains an attractive place to start an innovative business.

*The UK's total visa costs for a skilled scientist is **540% higher** than the average of visas costs across other leading science nations. For a student visa, the UK's typical costs are **405% higher** than the average costs of other leading science nations.^{xiii}*

*The **UK is the only science-leading nation** where applicants are charged a healthcare surcharge, currently £2,000^{xii}*

Contact

The Royal Society of Chemistry would be happy to discuss any of the issues raised in our response in more detail. Any questions should be directed to Ciaran Myles, policy@rsc.org, 01223 432350

About us

With around 50,000 members in over 100 countries 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.

ⁱ The Global Talent visa is a UK immigration category for talented and promising individuals in specific sectors wishing to work in the UK. It replaced the Tier 1 (Exceptional Talent) visa on 20 February 2020. An applicant needs an endorsement from a designated body but does not need a firm job offer and there is no cap prohibiting use of the route. <https://royalsociety.org/grants-schemes-awards/global-talent-visa/>

ⁱⁱ The UK's points-based immigration system <https://www.gov.uk/government/publications/the-uks-points-based-immigration-system-policy-statement>, 2020

ⁱⁱⁱ This excludes Irish nationals who, because of their participation in the Common Travel Area, are exempted from the new rules around immigration

^{iv} RSC Policy Survey, February 2019. See Footnote 3. The same survey cited 'access to collaborative networks across countries' as the top reason to associate with EU funding frameworks [add link to RSC survey]

^v UK Government Industrial Strategy https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664563/industrial-strategy-white-paper-web-ready-version.pdf, November 2017

^{vi} RSC recruitment survey, August 2019

^{vii} Professor Andy Cooper of Liverpool University needed to recruit rare specialisms such as crystal structure prediction for his ERC funded work to improve the development of new materials. Also, Professor Peter Coveney, commenting on international collaboration. https://www.rsc.org/globalassets/04-campaigning-outreach/policy/international-collaborations-create-chemistry/rsc_internationalcollaborationcreateschemistry_2018.pdf, January, 2019

^{viii} Rand, https://www.rand.org/pubs/research_reports/RR2690.html

^{ix} <https://www.rsc.org/globalassets/04-campaigning-outreach/policy/international-collaborations-create-chemistry/royal-society-of-chemistry-position-on-horizon-europe-2020.pdf>, Royal Society of Chemistry, February 2020. Also, Dr Hugo Macedo, founder of Smart Separations hosts an international team with members from the EU and beyond: https://www.rsc.org/globalassets/04-campaigning-outreach/policy/431716_v18_vo_sciencepolicycasestudies.pdf, December 2018 (correct costs at the time of writing)

^x https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/650447/LifeSciencesIndustrialStrategy_acc2.pdf, Life Sciences Industrial Strategy: A report to the Government from the life science sector, 2018,

^{xi} From Prof. Andy Cooper, University of Liverpool, https://www.rsc.org/globalassets/04-campaigning-outreach/policy/431716_v18_vo_sciencepolicycasestudies.pdf, December 2018

^{xii} A recent salary Survey states 'For yet another year, the hardest skillset to hire for in the UK is chemistry' at 25% (2018: 21%), SRG, March 2019: <https://www.srg.co.uk/news-and-insights/salary-survey-2019>

^{xiii} [Annual Scaleup Review 2018](https://www.scaleupreview.com/2018/11/20/annual-scaleup-review-2018), Scaleup Institute, November 2018

^{xiv} <https://www.parliament.uk/documents/commons-committees/Exiting-the-European-Union/17-19/Sectoral%20Analyses/7-Sectoral-Analyses-Chemicals-Report.pdf>, House of Commons Committee on Exiting the European Union, 2017

^{xv} The Law Commission <https://www.lawcom.gov.uk/project/simplifying-the-immigration-rules/>, January 2020

^{xvi} Government announcement on new fast-track visa for scientists <https://www.gov.uk/government/news/global-britain-to-attract-more-top-scientists-with-fast-tracked-entry>, December 2019

^{xvii} Full charge for one applicant on a 5 year visa. The Royal Society, 'UK science and immigration: why the UK needs an internationally competitive visa offer' <https://royalsociety.org/-/media/policy/Publications/2019/international-visa-systems-explainer-july-2019.pdf>