

SUBMISSION OF WRITTEN EVIDENCE FROM UNIVERSITIES UK TO THE COMMONS SCIENCE AND TECHNOLOGY COMMITTEE INQUIRY INTO ‘AN IMMIGRATION SYSTEM THAT WORKS FOR SCIENCE AND INNOVATION’

5 JUNE 2018

ABOUT UNIVERSITIES UK

Universities UK is the representative organisation for the UK’s universities. Founded in 1918, its mission is to be the voice for universities in the UK, providing high quality leadership and support to its members to promote a successful and diverse higher education sector. With 136 members and offices in London, Cardiff (Universities Wales) and Edinburgh (Universities Scotland), it promotes the strength and success of UK universities nationally and internationally.

EXECUTIVE SUMMARY

UK universities are a British success story: world-renowned, internationally competitive, and a major economic asset. As the prime minister recognised in her speech on 21 May, access to international talent underpins this success.¹ It is vital therefore that the post-Brexit immigration system does not restrict access to this global talent pool which is so important to UK science and innovation.

We welcome the prime minister’s commitment to scientific collaboration and an immigration system which ensures the UK can remain at the forefront of research and innovation. The decision to leave the EU offers the government the opportunity to re-think our immigration system and devise policies which support migration flows beneficial to the UK.

Any future system should enable the UK’s labour market to benefit from overseas workers who are able to fill skills and labour shortages, drive economic growth, improve educational attainment, and support research and innovation. It should also be must be accompanied by minimal bureaucracy and cost to both applicants and employers, while also recognising the vital importance of international students in supporting our research sector.

¹ Prime Minister’s Office (2018), [*PM speech on science and modern Industrial Strategy: 21 May 2018*](#)

This submission outlines the importance of ensuring the UK has an immigration system which supports science and innovation, and sets out key recommendations for the government to enable it to achieve this goal.

KEY RECOMMENDATIONS

- To ensure the UK remains at the forefront of science and research any future immigration system must recognise the highly specialised nature of academia and research, and support the recruitment of researchers. It must be proportionate and ensure minimal costs and bureaucracy for both applicants and employers, also facilitating movement for vital non-academic staff like research technicians.
- International students are critical to the UK's academic pipeline and for ensuring that university teaching remains sustainable. A post-Brexit immigration system should therefore remain open to international students and provide meaningful opportunities for individuals to stay on and work after having studied in the UK.
- Any future immigration system must allow for short- and medium-term academic visits and periods of mobility in order to support growth in international research collaboration.
- We urge the government to reach an agreement with the EU that cements what has been agreed on citizens' rights in the Phase One agreement through the negotiations so far, so that it can enshrine these rights into UK law as soon as possible.
- The government can do more now to provide certainty for researchers by outlining contingency plans in the event it does not secure its negotiation objectives – such as around research collaboration and citizens' rights – including in an undesirable 'no deal' scenario.
- Adequate time is also needed to determine and implement the longer-term post-Brexit migration system, and to give employers and migrants adequate notice of the new system. The government should provide sufficient notice of two years or academic cycles at minimum for future policy towards international students and staff. Clarity is therefore needed on the future immigration system as soon as possible this year.
- Universities UK urges the government to seek continued participation to the Horizon 2020 and Erasmus+ programmes and their successors. Agreeing reciprocal arrangements that promote academic collaboration and exchange will be vital in underpinning the success of UK participation in these two key EU programmes.

1) *If an early deal for science and innovation could be negotiated, what specifically should it contain in relation to immigration rules and movement of people involved with science and innovation?*

1. The UK is currently a world leader in science and innovation. If we want to maintain and enhance this position – including by meeting the government’s target of increasing total R&D investment to 2.4% of GDP – UK universities must be able to recruit globally for the best research talent. To ensure that they are able to do this, the UK’s immigration system must do the following:
 - a) support the recruitment of PhD-level staff
 - b) protect the pipeline from study to work, as this is an important route for early career academics and researchers
 - c) facilitate the recruitment of a broader range of workers and skills than the current system for non-EEA migration allows, including those working as technicians
 - d) facilitate short-term staff mobility and collaboration visits as well as longer-term migration
 - e) minimise bureaucracy and cost to employers and applicants
 - f) include an appropriate transition/implementation period to give employers and applicants time to adjust to any new system
 - g) address negative perceptions and send the message that the UK remains an attractive destination
2. The UK’s decision to leave the EU offers an unparalleled opportunity to review the whole migration system and build a future structure which maximises support for science and innovation. This structure should be flexible enough to allow for both the long-term and short-term academic and researcher mobility which is of such benefit to the UK. Although piecemeal solutions may be necessary during any implementation phase in the immediate post-Brexit period, there is the chance to build a longer-term, strategic and sustainable system which offers certainty to employers as well as confidence to the public.

Why international staff and students matter

3. In 2016–17, 30% of all academic staff (61,580) came from outside the UK, rising to 33% of academic staff in STEM subjects, 47% in electrical, electronic and computer engineering, and 55% in chemical engineering. The proportions are even higher for those on research-only contracts, with 48% staff from outside the UK, including 66% of mathematics staff and 68% of chemical engineering staff. A report for the Royal Society found that 57% of researchers they surveyed had

spent time working overseas since they had completed their highest degree, a proportion which rose to 71% in the arts and humanities.² Without international staff, the UK's universities would not be able to produce the same levels of world-leading teaching and research in these key subject areas and many others.

4. The ability of UK universities to recruit the top minds in their fields, irrespective of nationality, is fundamental to the excellence of the UK university system. In her speech on 21 May,³ the prime minister recognised the contribution that international researchers and international collaboration have made to the UK's scientific excellence. We welcome the prime minister's commitment to ensure that the future immigration system supports this and that the UK 'will always be open to the brightest and the best researchers to come and make their valued contribution'.
5. Researchers who have spent an extended time abroad are likely to have published significantly more than those who have stayed in one place,⁴ and international mobility is linked to greater international collaboration, which in turn is linked to greater research impact.⁵ The proportion of international staff at a university is also used as a metric in international university league table rankings, recognising that the ability to attract and retain world-leading researchers is a vital part of being an internationally excellent institution.⁶
6. It is not just international staff who are vital for the UK's research base: international students – particularly research students – also support science and innovation in the UK. They form a significant part of the current research base. Within the sciences, PhD students are an important part of research teams and as such will contribute to research outputs, including publications and research trials. They will also be part of research teams' funding applications, helping to bring wider (including international) research funding into UK universities. International PhD students also contribute to the general research environment, which is a significant determiner for quality-related research funding from the UK funding councils; and many will provide teaching for undergraduate students as well. In 2016–17, international students made up 42% of postgraduate research students, with higher proportions in STEM subjects.
7. International PhD students also often go on to become academics in the UK as well, supporting the UK academic pipeline. Of international staff who first started

² Rand Europe (2017), [International mobility of researchers: a survey of researchers in the UK](#)

³ Number 10 Downing Street (2018), [PM speech on science and modern Industrial Strategy: 21 May 2018](#)

⁴ BEIS/Elsevier (2017), [International Comparative Performance of the UK Research Base 2016](#)

⁵ Elsevier and Science Europe (2013), [Comparative Benchmarking of European and US Research Collaboration and Researcher Mobility](#)

⁶ QS World University Rankings methodology and THE World University Rankings assign 5% and 2.5% respectively to international staff ratios

working at their university in 2015 or 2016, 16% had most recently been studying at a UK university. That rises to 19% for new staff from outside the EEA. There are particular concentrations of former PhD students in some subject areas: for international staff starting in 2015 and 2016, 29% in area studies, 28% in economics and 27% in mechanical engineering had most recently been students in the UK. Without international PhD students, universities would find it much harder to resource their undergraduate teaching or to find the academics of the future.

How the immigration system can support science and innovation

PhD-level jobs

8. Under the current visa system, PhD-level jobs are afforded extra protection. There is a recognition that individuals in these roles are highly educated and highly skilled but may not be earning comparable salaries to similarly qualified professionals in other sectors. PhD-level jobs are also exempt from the Immigration Skills Charge. Any future system must continue to recognise the highly specialised nature of academia and research and must support the recruitment of these individuals.

Post-study work opportunities

9. International students are critical to the academic pipeline. As outlined above, data from the Higher Education Statistics Agency (HESA) shows that early stage academics from outside the UK are often individuals who previously studied in the UK. Data from the Destinations of Leavers of Higher Education (DLHE) survey⁷ also shows that former PhD students from the EU are most likely to stay in the UK and work as academics and researchers upon graduation (42.9% do so). It also shows that many international undergraduate and masters graduates go into the health, engineering, research and development, and IT and telecoms sectors, demonstrating their importance for science and technology in the UK. It is therefore important that any future system provides meaningful opportunities for individuals to stay on and work after having studied in the UK.

Expanding the work route

10. EEA staff currently make up a high proportion of those working in vital technician roles in universities, providing important and skilled support to academic researchers. These roles can range from setting up and maintaining

⁷ Analysis of HESA (2017), *Destinations of Leavers of Higher Education survey* by the Higher Education Careers Service Unit for Universities UK

experiments, to something as specialised as radar analysts who identify sites to drill and remove ice cores from the Antarctic so these can be used to research the patterns and rates of global warming. Around half (48.5%) of EEA staff working in technician roles in 2015–16 possessed at least a postgraduate qualification, and 16.3% of them had PhDs.

11. However, the current Tier 2 system does not recognise technician roles as highly-skilled so it is not possible to recruit non-EEA nationals to them. If the Tier 2 system were applied to EEA nationals following Brexit, universities would be unable to recruit staff who are critical to research and academic activities. In some areas of the country, it may also leave institutions unable to source unskilled workers who are crucial to the every-day smooth functioning of universities.
12. A review of the types of roles individuals can access on a work visa is needed to ensure that employers can recruit workers into roles across a range of salary and skills levels where there is insufficient domestic capacity.

Short-term mobility and collaboration visits

13. International mobility is strongly linked to international research collaboration, which is linked to greater research impact (a 2013 Elsevier report found that research with international collaborators had nearly 50% more impact than research done at a national level).⁸ International collaboration will often include staff visiting each other and short-term visiting fellowships / ‘academic hospitality’ positions of up to one year. As a more recent Elsevier report for BEIS states,

‘International research collaboration and international researcher mobility are interrelated and interdependent, and shaped by collaborative interactions that take place across multiple institutions, borders, continents, and time zones. ... Countries that exhibit high levels of research collaboration typically have high levels of researcher mobility, and the UK is no exception.’⁹

14. Any future immigration system must allow for short- and medium-term academic visits and periods of mobility in order to support growth in international research collaboration.

⁸ Elsevier and Science Europe (2013), [Comparative Benchmarking of European and US Research Collaboration and Researcher Mobility](#)

⁹ Elsevier and BEIS (2017), [International comparative performance of the UK research base 2016](#)

Minimising bureaucracy and cost

15. The post-Brexit migration system must be proportionate and ensure minimal costs and bureaucracy for both applicants and employers. Any failure to minimise cost and bureaucracy would result in barriers to recruitment, a diminution in the UK's standing as an attractive place to work and an increase in the perception that the UK is unwelcoming. This is particularly critical at a time when other countries are seeking to attract more international academic staff.

Transition to a new system

16. It is vital that sufficient transitional arrangements are built in to the implementation of new system to manage EEA migration post-Brexit. This will avoid a cliff-edge. The planned implementation phase, running from 30 March 2019 to 31 December 2020 provides some much-needed stability for universities and EEA citizens in the UK. However, adequate time is also needed to determine and implement the longer-term post-Brexit migration system, and to give employers and migrants adequate notice of the new system. This is essential to ensure appropriate planning, to communicate requirements to prospective staff, and to make budgetary and resource adjustments where needed. For universities, the worst case scenario would be a restrictive system which is implemented with little notice and no transitional arrangements.

Addressing negative perceptions

17. Brexit has the potential to alter perceptions of the UK as a welcoming and outward-facing nation. Evidence from UK universities shows that prospective employees are concerned about the impact of Brexit and that existing staff remain anxious over their future status. It is therefore critical that government takes further steps to address negative perceptions and to promote a positive and open vision for the UK post-Brexit.

2) What are the specific career needs of scientists in relation to movement of people, both in terms of attracting and retaining the people the UK needs and supporting the research that they do?

18. Research is a collaborative endeavour, and a significant proportion of UK research output results from international collaboration. Research conducted by Elsevier in 2014 shows that over half of all UK publications resulted from international collaboration. At the same time, gross domestic expenditure on R&D is increasing in key comparator countries, driving up the level of resource available for national R&D systems.

19. A direct consequence of these two issues is that UK universities are experiencing increasing competition for researchers, who are very well-networked and, frequently, internationally mobile.
20. UK universities have well-established recruitment practices to attract researchers, and these practices have not significantly changed in recent years. However, negative perceptions matter, and universities have utilised significant resources to respond to questions and concerns from candidates concerned about Brexit.
21. Since the referendum, some universities also report a diminishing applicant pool, specifically from the EEA, for academic and research posts. Although this trend was not consistently reported across the whole sector, it was flagged by several universities who have submitted evidence to UUK to inform this response.
22. An executive search firm working for one university department analysed why suitably qualified professors from continental Europe had not applied for available posts. Those contacted from continental Europe frequently cited Brexit and continuing concerns about the political situation in the UK as active factors in their decision not to apply.
23. The strength of R&D makes the UK a compelling destination for scientists, but it is important that negative perceptions are addressed. The comments made by the prime minister recently on the contribution of the UK's resident researcher population who were born overseas is a positive step, and it is important that this message gets through to prospective researchers.
24. As outlined in the answer to the previous question, both international students and non-academic staff play an important role in supporting UK science and research. Any post-Brexit immigration system must acknowledge this.

3) What aspects of the 'people' element need to be negotiated with the EU-27, as opposed to being simply decided on by the Government?

Citizens' rights

25. Universities welcome the progress reached through the Phase One and transition agreements on the UK's exit from the EU, which provide much needed clarity on the rights of 49,530 EU nationals working across the university sector. However, seeing as nothing is agreed until everything is agreed when it comes to the Brexit negotiations, there is still much way to go in order to provide these citizens with the certainty they deserve.

26. We urge the government to reach an agreement with the EU that cements what has been agreed on citizens' rights through the negotiations so far, so that it can enshrine these rights into UK law as soon as possible. Furthermore, in the event of an undesirable 'no deal' scenario, we urge the government to unilaterally guarantee the residency rights of EU citizens. This will provide additional certainty for researchers and other university staff already living and working in the UK.

Mobility of UK and EU citizens

27. The UK is a key partner for global research collaboration and inward researcher mobility, but this status is supported by high levels of UK researcher outward mobility – between 1996 and 2015, 72.2% of active researchers were internationally mobile.¹⁰

28. The 'mobility of citizens' will likely form an important part of the 'framework for the future relationship' discussions between the UK and the EU. As part of this, agreeing reciprocal arrangements that promote academic collaboration and exchange will be vital in underpinning the success of two key EU programmes that Universities UK wants the government to secure full association to. These programmes are:

- a) Horizon Europe, which will be the EU's 9th Framework Programme for research and innovation, and the successor to Horizon 2020, and
- b) the next Erasmus+ programme

29. Both of these programmes are due to start in January 2021, the day after the transition period ends.

30. The successes of both the Framework Programmes and the Erasmus programmes to date have been underpinned by the ability of students and academics to move freely within the EU, including the UK:

- a) Framework Programmes – since the start of the Horizon 2020 programme in 2014, the UK has received €536m through MSCAs, enabling 2,501 UK institutions to host 2,229 researchers (to June 2017).¹¹ In addition, 572 European Research Council grants have been awarded to UK-based researchers, a significant proportion of whom have relocated internationally to take up their grants, as well as recruiting more international researchers to join their research teams. If the UK secures an association agreement to the next Framework Programme, it will be essential that the barriers to entry for

¹⁰ Elsevier and BEIS (2016): [Performance of the UK research base: international comparison, 2016](#)

¹¹ European Commission, [Marie Skłodowska-Curie Actions in numbers](#)

these researchers are as low as possible so as not deter any potential applicants.

b) Erasmus+ – between 2014 and 2017, higher education providers were awarded €229m as part of the mobility strand of the programme, and in the academic year 2015–16 alone this supported 15,756 UK-based higher education students to work or study abroad and a further 2,625 university staff to teach or train abroad.¹² In addition, the UK welcomed 31,067 students and 3,991 staff in 2015 alone.

31. Given the government’s decision to end freedom of movement between the UK and EU post-Brexit, it is vital that future immigration rules for EU nationals coming to the UK, and for UK nationals travelling to another EU country, do not in any way disrupt the existing levels of academic collaboration, cooperation and exchange. Indeed, the government’s vision for a future UK-EU Science and Innovation Pact specifically refers to the important role that researcher mobility will play.¹³ This means agreeing that there will be ease of movement for researchers and students wishing to cross borders both within and outside of the structures of these programmes. It is worth noting in this context that the EU recently updated legislation to reduce immigration barriers to third country students and researchers as part of their ‘Scientific Visa package’ to make the EU more attractive as a destination for research and study.¹⁴

32. While we welcome the government’s vision on science and innovation, more could be done now to set out contingency plans for if it does not achieve its negotiation objectives, such as in an undesirable ‘no deal’ scenario. For instance, the government could provide an additional conditional guarantee that it will underwrite third country participation in the absence of full participation in Horizon 2020. This contingency work should also include detailed planning for establishing shadow structures to replicate the European Research Council and other parts of Horizon 2020 not accessible to third countries.

4) On what timescale is clarity needed in relation to future immigration rules in order to support science and innovation in the UK?

33. It is vital that universities, as well as current and prospective students and staff, have sufficient notice before any changes are made to the immigration rules. Implementing plans to respond to future changes to migration rules, which have the potential to disrupt recruitment of students and staff, will require substantial

¹² UK National Agency, [Erasmus+ statistics](#)

¹³ Department for Exiting the European Union (2018), [Framework for the UK-EU Partnership: Science, Research and Innovation](#)

¹⁴ European Parliament (2018), [New rules for foreign students and researchers](#)

lead-in times. In this instance, university leaders have advised UUK that government should provide sufficient notice of two years or academic cycles at a minimum.

34. If substantive changes to the rules governing the migration of EEA students and academic staff can be expected to take effect on 1 January 2021 (i.e. post-transition), this means that clarity on the shape of the future immigration system is needed as soon as possible this year. At present, these changes are due to take effect mid-way through the academic year 2020–21, and we are now just months ahead of the 2018–19 cycle starting in the autumn.
35. For the recruitment of students, including PhD students, sufficient notice is important because evidence shows that the majority of students start their research about studying abroad well in advance of actual enrolment. In addition, data from Hotcourses, which matches registered students' data with enrolments at universities, found that around 80% of students who enrolled at a UK university started their research more than 12 months ahead of enrolling onto their course, with one-third of the total sample having started their research between 2 and 3 years in advance.¹⁵
36. The increasingly urgent need for clarity, as well as a need for the UK to project an open and welcoming messaging internationally, is compounded by findings from a May 2018 International Student Survey published by QS, covering the views of 67,000 prospective applicants interested in studying in the UK.¹⁶ It showed that 39% of respective EU students thought that Brexit would deter them from coming to the UK to study, and that EU students' second most-common reason for being put off studying in the UK is that they "think the UK is less welcoming to international students like me".
37. For academics, the development of research funding applications can be a lengthy process, especially for the development of collaborative project proposals, with many taking more than 12 months to complete. Here, the need for clarity on future migration rules is also increasingly urgent, as the overall share of Horizon 2020 participations and funding received by the UK have dropped. Between May and September 2017, the UK took 11.5% of total funding, compared with 10.4% between September 2017 and March 2018, whereas participations dropped from 11.6% to 10.5% in the same period. We are hopeful that the UK-EU Phase One agreement reached in December 2017, which sets out that the UK can continue to participate in the programme until its end date, will have provided some much-

¹⁵ Hotcourses information provided to Universities UK

¹⁶ International Student Survey (2018), [International student survey 2018](#)

needed certainty for Europe's researchers, but questions around future migration rules remain.

38. Both the government and the EU have recognised the importance of researcher mobility in recent weeks.¹⁷ To ensure that this commitment effectively supports science and innovation, researchers must be able to cross borders in order to collaborate over the short, medium and long-term. This means there must be minimum bureaucracy and cost for visits ranging from a week to years at a time.

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¹⁷ See Department for Exiting the European Union (2018), [Framework for the UK-EU Partnership: Science, Research and Innovation](#) and European Parliament (2018), [New rules for foreign students and researchers](#)