Universities Scotland submission to the Commons Science and Technology Committee call for written submissions in advance of 'Brexit: Science and Innovation summit on 22 Feb 18'

Introduction

1. We welcome the opportunity to contribute to the Science and Technology Committee's 'Brexit: Science and Innovation Summit', supporting the development of the Committee's priorities for phase II of the negotiations.

2. Our submission is on behalf of the 19 higher education institutions (HEIs) in Scotland, and we make comments in the five areas highlighted by the Committee (as italicized), with recommendations highlighted in bold.

3. Our relationships with EU (/worldwide) partners are highly valued by the Higher Education sector, as they enable researchers to address major, global challenges and allow the flow, development and application of the best ideas.

4. For Scottish higher education institutions (HEIs):
   - 17% of academic staff in Scotland are EU (non-UK) nationals, increasing to 25% of research-only staff
   - EU students count for 16% of our postgraduate research population
   - Scottish HEIs received £94M in research funding in 2014/15, 9% of total research funding[1]
   - As of May 2016, Scottish HEIs received 13% of all Horizon 2020 funding to UK HEIs[2]
   - Regarding all Horizon 2020 funding to Scottish institutions across the programme (to May 2017), we have seen 480 projects with 2191 collaborating organizations and 89 collaborating countries.[3]

5. Universities Scotland's wider Brexit priorities are available via our website.

The Government's Future Partnership Paper 'Collaboration on science and innovation', including any challenges not fully acknowledged and opportunities not fully explored.

6. This paper was a useful articulation of the UK Government commitment's to, and priority associated with, future collaboration with EU research and innovation partners. We welcome the ambition to agree a 'uniquely close relationship with the EU so that collaboration on science and innovation is not only maintained, but strengthened'. We agree with the paper's identification of the examples and areas that show the value of EU-wide scientific collaboration. However, the positive words are not accompanied by any detail articulating what UK Government wish to see in a future relationship.

7. Our view is that we want a close relationship that includes full access to the EU research and innovation system. We have outlined in our response to the interim evaluation of Horizon 2020[4] that the value of the EU-wide system extends far beyond the monetary value alone. Briefly the areas of 'added value' include:
   - Facilitating cooperation with partners to share knowledge and drive research quality
   - Enabling the nurturing of internationally-linked and experienced researchers at all career levels
   - Having a consistent approach to funding across national boundaries without requiring academics to navigate several funding systems

[1] Universities Scotland, https://www.universities-scotland.ac.uk/publications/brexit-priorities/ (accessed 31 January 2018)
[2] Figures provided by Scottish Government, May 2016
[3] Vinnova database, http://h2020viz.vinnova.se/#/, (accessed September 2017)
[4] Universities Scotland, https://www.universities-scotland.ac.uk/briefing-evidence/response-european-commissions-interim-evaluation-horizon-2020-programme/, January 2017

- Allowing pooling of expertise (and data) to reach critical mass for research into worldwide challenges
- Creating value for individuals and teams in winning competitive funding on an EU-wide scale to underline the quality of work
- Providing a long-term funding settlement to support a longer-term approach to research

8. We see these as important considerations in what a future relationship could look like to ensure a mutually beneficial partnership.

9. The commitment to 'closely work with the Devolved Administrations' (paragraph 18) is important to us. We hope to see evidence of this as we move towards a greater focus on research and innovation in future negotiations.

10. We would welcome UK Government giving stronger and clearer information on the specifics of the 'ask' for a future relationship and the preferred outcomes sought in this partnership/framework, developing this in partnership with the devolved nations.

11. One of the key points in the future partnership paper was the Government's ambition for the UK to 'remain a hub for international talent' (paragraph 16). Freedom of movement in the EU has been hugely important in building up the UK research base, allowing the free circulation of people and ideas. This is critical to the future of UK research and innovation, and talent becomes all the more important in the context of the Industrial Strategy and the goal to grow UK R&D investment to 2.4% of GDP by 2027.

12. We have responded to the recent Migration Advisory Committee call for evidence of EEA workers in the UK[5], and we are well aware of the huge contribution of EU staff to Scottish HEIs. Our evidence shows that Scotland's non-UK EEA workforce is disproportionally young and concentrated in academic roles, particularly in science, engineering and technology disciplines. Those staff will often be early-career researchers and they support a lot of the research effort in Scottish HEIs. Many of those individuals will be attracted to Scotland due to the world-leading universities but may not pursue academic careers – the value of highly skilled individuals in the work-force cannot be over-estimated, including increasing absorptive capacity for innovation in businesses for R&D.

13. From a Scottish perspective there are significant demographic challenges where the solution requires inward migration. Looking ahead (from 2017) Scotland's population is expected to grow at a slower rate than the UK average, by an estimated 7% to 2039 compared to 15% growth for the UK as a whole and up to 90% of that projected growth is expected to depend on immigration.[6]

14. The future migration regime must support mobility of talented researchers (and the best staff for the HEI operation in the broadest sense) and retention of talent in Scotland/the UK.

15. Given the specific challenges and context in Scotland we would support the exploration of differentiated migration arrangements for Scotland.

The issues identified in previous S&T Committee reports (see below) that have since been addressed, and which still require attention.

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[5] Universities Scotland, https://www.universities-scotland.ac.uk/briefing-evidence/universities-scotland-response-migration-advisory-committee-call-evidence-eea-workers-uk/, October 2017

[6] Options for Differentiating the UK's Immigration Systems (prepared for the Culture, Tourism, Europe and External Relations Committee), Dr Eve Hepburn, http://www.parliament.scot/S5_European/General%20Documents/CTEER_Dr_Hepburn_report_2017.04.24.pdf, 24 April 2017

16. There are a number of items raising in previous Committee reports that we have touched on throughout this response.

17. A future concern is the potential for regulatory divergence when the UK is no longer part of the EU and the potential detrimental impact on collaboration in science and innovation (this could cover handling of data, Intellectual Property Rights and issues related to life/medical sciences). While this may not be an immediate issue it could become much more challenging and resource-intensive in future.

The pros, cons and remaining uncertainties for science and research following the recent UK/EU agreement for an 'Orderly UK withdrawal'.

18. Like many stakeholders we were pleased to see the commitments to citizens' rights, and to note that the UK will continue to participate in EU programmes financed by the MFF2014-2020 'until their closure' which covers Horizon 2020 and Erasmus+. However, the caveat of 'nothing is agreed until everything is agreed' (while appreciating why this is the case) is a deterrent to full confidence for researchers and therefore creates uncertainty and is a barrier to joint working.

The consequences of any short-term uncertainty during the negotiation period, and how these can be addressed.

19. A key issue we would raise is the importance of countering a perception that the UK is 'unwelcoming' (both to the EU and to the international community more widely) and to work to promote the UK Government's guarantees and reassurances on funding, as well as the value of international partnerships.

20. Parallels can be drawn to undergraduate student applications where we have seen a -0.5% reduction in EU nationals applying to study in Scotland. This is the second year we have seen a fall; following a -5% reduction in application for 2017/18 entry which was the first year after the referendum.[7] There have not yet been any changes in policy or funding affecting EU undergraduate students in Scotland and therefore these falls can only be attributed to perception and instability caused by Brexit.

21. It has been widely reported that UK participation in Horizon 2020 has marginally declined (data extracted as of September 2017)[8]. Although it is challenging to draw any firm conclusions from this downturn (bearing in mind normal fluctuations in such a large, long-term programme) it is important that EU partners are reassured that the UK is a viable partner for the long term.

22. We would ask that UK Government and relevant agencies continue to promote the UK as a long-term science and research partner, working with the sector, to promote partnerships.

The UK's future participation in Horizon-2020 and its successor programmes, including any alternative models that should be explored.

23. While the UK is still a member of the EU it is critical that UK Government fully participates in the development of Framework Programme 9.

24. The independent High Level Group on maximizing the impact of EU Research and Innovation Programmes published 'LAB-FAB-APP: Investing in the European future we

[7] UCAS data
[8] UK Government, https://www.gov.uk/government/statistics/uks-participation-in-horizon-2020-september-2017, November 2017

want'[9] which called for full and continued engagement of the UK in the post-2020 programme which we hope will support future UK engagement.

25. **The UK Government should therefore make a submission to the consultation on the development of Framework Programme 9, in consultation with devolved nations. We would welcome that this submission include the key points raised in paragraph 25.**

26. This consultation closes on 8 March 2018 and many institutions are developing their position currently. We have a number of initial recommendations for Framework Programme 9[10], including:
    - A continued focus on funding for excellence
    - Growth in highly valued interventions such as the European Research Council and Marie Sklodowska-Curie Actions (and more widely, Pillar 1)
    - Increased support for bottom-up, curiosity driven research
    - The principle for funding for excellence does not negate the importance of capacity building which could be achieved through use of Structural Funds (in synergy with Horizon 2020/Framework Programme 9)
    - There is a need to improve the inclusivity of Framework Programme 9 to support the best possible use of research talents across participating countries (for example, better support for flexible working practices)
    - Designing the programme to better facilitate global collaborations

Whether recent science co-operation deals (eg. the Joint UK-China Strategy for Science and UK-US Science and Technology Agreement) provide a suitable model for collaboration with other countries post-Brexit, including the EU.

27. We know that international collaboration is good for research. 51% of UK articles (2014) resulted from international collaboration and this is associated with increased field-weighted citations impact[11] (FWCI). Scotland has the second highest international collaboration share (67%, behind Wales at 69%) but this is associated with the highest FWCI for the four nations[12].

28. **Therefore we support the ongoing work to support international collaboration via additional funding and the work on an international research and innovation strategy. Investment is critical to establish, build and maintain collaborations. It will be important that such strategies work for the whole UK and factor in the different processes, and possibly priorities, of devolved nations.**

29. **Personal relationships are so important to collaboration that we think that mobility grants should be a key focus of additional funding for international collaboration. This would support researches to develop links and collaborations around the world.**

30. **HEIs as organizations also invest a great deal of resource into facilitating new partnerships and this too must be appropriately resourced to allow us to achieve the shared goal of maintaining and enhancing our world-leading research base.**

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[9] European Commission, http://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/hlg_2017_report.pdf, July 2017
[10] Universities Scotland, https://www.universities-scotland.ac.uk/briefing-evidence/response-european-commissions-interim-evaluation-horizon-2020-programme/, January 2017
[11] International Comparative Performance of the UK Research Base 2016, Elsevier/BEIS (2017), https://www.elsevier.com/___data/assets/pdf_file/0018/507321/ELS-BEIS-Web.pdf
[12] *Ibid* (table 5.2, page 75)

31. While we see co-operation deals as valuable these must be seen as additional to the current EU-wide arrangements rather than a replacement. As noted earlier in this response, there is much to support in the EU-wide nature of Horizon 2020.

About Universities Scotland

We are a membership organisation working for the Principals and Directors of Scotland's 19 higher education institutions. We develop higher education policy and campaign on issues where our members have a shared interest.

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