

Leaving the EU: implications and opportunities for science and research

Written submission by Ulster University

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Executive Summary

- With continued reductions in research funding by Governments, HEFCE and the Research Councils, EU Framework and Structural funds are crucial for universities, including Ulster University, if we are to influence research policies, undertake world leading research and innovation and compete globally for the best talent and access to the best facilities.
- Student mobility and access to research funding is important not only for universities in Northern Ireland but also the wider NI economy. Based on 2011/12 student figures, EU students in Northern Ireland generate over £78million annually for the economy and support over 840 jobs. Over the last 5 years, Ulster University has been awarded over £20million of EU research funding.
- The NI economy is different in a number of ways to the wider UK economy, including having lower wages, lower labour productivity rates, an over dependence on the public sector, lower GVA per capita, lower levels of business investment in R&D, a weaker skills profile among the working age population and high levels of economic inactivity.
- NI does, however, attract proportionately more Foreign Direct Investment than other parts of the UK.
- Any impact on staff and student mobility and access to research grants could undermine our ability to continue to attract FDI and undermine NI's regional economic policy that is dependent on access to economic resources, including market access, the flow of skills and the ability to collaborate on R&D programmes across national boundaries.
- We note the Chancellor's confirmation on 13 August that *"all structural and investment fund projects signed before the Autumn Statement will be fully funded, even when these projects continue beyond the UK's departure from the EU."*

- However, this does not address Ulster University's particular concerns about funding for the INTERREG V and PEACE programmes, alongside initiatives that operate jointly between Northern Ireland and the Republic of Ireland, given their reliance on EU funding.
- Northern Ireland's unique position as the only part of the UK to share a land border with the EU and the political history, which continues to impact on our society, are such distinct circumstances that they must be given specific consideration as part of how Britain leaves the EU.
- Ulster University believes clarity is needed urgently on:
 - Whether the UK Government will underwrite any shortfall in the funding of EU funding programmes, particularly the INTERREG VA programme;
 - The impact on the PEACE programme, particularly on how long grants will last for; and
 - The visa status of current EU staff and students whose time in the UK is due to extend beyond the two year period that will begin with the triggering of Article 50 of the Lisbon Treaty.

1. Introduction

- 1.1 Ulster University is an institution with a national and international reputation for excellence in higher education, research, innovation and engagement with business and industry.
- 1.2 Ulster University is a pioneering, forward-looking institution with the unambiguous aim of working with partners to promote the economic, social and cultural development of Northern Ireland and the promotion of the region internationally.
- 1.3 The University works in partnership with, for example, Invest NI to attract Foreign Direct Investment to Northern Ireland through its research capacity, high quality graduates, international partnership networks, commitment to innovation, and close engagement with the business world.
- 1.4 Ulster University has a number of concerns about the impact of Britain leaving the EU on our science and research work, as well as being able to identify a number of opportunities.
- 1.5 This submission is structured to outline the risks, opportunities and potential mitigations in the areas outlined within the Terms of Reference.

2. Collaborations

- 2.1 Academic networks and collaborations are greatly enhanced through access to EU funding streams, allowing for projects to be scaled up in ways not possible at local or national level.

- 2.2 Since the referendum result, there is already substantial anecdotal evidence that UK institutions (including Ulster University) are being asked to leave consortia applying for EU funding and that partners are reluctant to enter into arrangements given the uncertainty.
- 2.3 Short and medium-term risks associated with leaving the EU are that current research partners from within the EU become reluctant to establish new projects or enhance existing.
- 2.4 Longer term, the exit from the EU could mean that partnerships are not renewed and this in turn could, potentially, lead to UK research excellence and quality being undermined and our global reputation damaged.
- 2.5 Opportunities may include the strengthening of local and national academic networks and collaborations should there be a decrease in EU collaborations, as well as necessitating a renewed focus on establishing networks and collaborations outside of the EU.
- 2.6 Reassurance that existing research collaborations across Europe will not be affected by leaving the EU and a commitment to supporting and facilitating future networks and collaborations between UK and EU institutions will be vital mitigation measures for the UK Government to implement.

3. Mobility of researchers

- 3.1 The ease of travel of researchers between countries and institutions means that recruiting non-UK researchers from EU countries is, currently, relatively straightforward.
- 3.2 This has been vital for the UK in maintaining its excellent research base and increasing its competitive edge with the likes of the US and the BRICS countries.
- 3.3 This is because, practically, the EU relationship has been pivotal to the continued competitiveness of universities as we rely on access to the best, most talent academics and researchers to produce industry ready graduates and world-leading research that can deliver positive impacts to local and global economies.
- 3.4 Potential difficulties in attracting talent to UK universities is a significant risk with leaving the EU, if a more complicated visa system is introduced. This could reduce the competitiveness of our universities in attracting top researchers and staff with specialist expertise, again impacting on our global reputation and research excellence.
- 3.5 By way of mitigating measures, the impact on current and newly appointed EU national staff working within universities regarding their leave to remain and their visa status must be clarified as a matter of urgency.

3.6 This must include clarity on whether there will be any difference for those on fixed term contracts as compared to those on permanent contracts. This is particularly important if fixed terms contracts are due to expire following the UK's exit from the EU.

4. Mobility of students

- 4.1 Based on 2011/12 student figures, EU students in Northern Ireland generate over £78million annually for the economy and support over 840 jobs. A new relationship with the EU may impact upon student mobility – depending upon access to the single market / free movement of people, changes to visa and fees systems etc.
- 4.2 There may be an impact on undergraduate and postgraduate EU students and their funding/visa status within the institution – particularly for those students who will begin their PhD in 2016/17 and will not finish for three plus years. This goes beyond the two year period for disengagement with the EU as identified in Article 50 of the Lisbon Treaty.
- 4.3 Associated with this is the impact on tuition fees for EU nationals who want to study with Ulster University. This will include students from the Republic of Ireland who are our largest cohort of fee-paying EU students studying at the institution.
- 4.4 Similarly, there will be an impact on the Erasmus scheme. Ulster University currently has c. 150 Erasmus+ mobility agreements to facilitate incoming and outgoing exchange students from across the European Economic Area. The Erasmus+ programme is by far the biggest student mobility programme at Ulster University, facilitating more home students to travel abroad to study or work in another country than any other single programme available to students.
- 4.5 The stipend available through the Erasmus programme sets it apart from others. This helps some students meet financial costs that may otherwise prohibit them from participating.
- 4.6 Risks associated with potentially reduced or limited student mobility include reducing competitiveness in international student recruitment leading to fewer EU students attending UK universities. Uncertainty around the visa system and the potential complexity therein will be one of the most, if not the single most, important factor in this.
- 4.7 There may also be an increase in the number of students from the UK leading to attend EU based universities that can provide programmes such as Erasmus, the most talent staff, research partnerships, projects and specialist technologies.
- 4.8 Consideration must be given to making allowances for higher education recruitment in any legislation relating to mobility / borders / visa process as part of the negotiations on the UK's exit from the EU. We would call for clarity as

soon as possible both for existing and potential students, given the lead in time for recruitment to higher education.

5. Access to funding

- 5.1 Securing research funding from UK governments is increasingly difficult in the challenging fiscal position and in recent years, EU funding has become increasingly important.
- 5.2 The Royal Society recently stated¹ that between 2007-08 and 2013-14 the research and innovation funding that the UK has received from the EU has more than doubled. In fact, UK researchers obtained €8.8 billion in EU research grants between 2007 and 2013. This was in comparison to a nominal UK contribution to these programmes of €5.4bn in the same period.
- 5.3 This means that UK researchers obtained nearly £3 billion more in European Union research grants than the UK government paid into EU research funds.
- 5.4 Over the last 5 years, Ulster University has been awarded over £20million of EU research funding. This includes the EU framework programme, PEACE funding and other EU competitive funding sources.
- 5.5 Concerns are already being raised about Horizon 2020 applications where UK universities are the co-ordinator; we know that some institutions have already lost Marie-Curie PhD fellowships. We note the commitment from the Treasury to fund Horizon 2020 grants awarded before the UK leaves the EU and will monitor the impact this has on the concerns of partners during the ongoing application process.
- 5.5 Ulster University notes the commitment from the Chancellor to guarantee any EU structural and investment fund projects signed before the Autumn Statement.
- 5.6 However, there is no clarity about whether this includes European territorial co-operational programmes, which include the INTERREG VA programme that is vital and unique to Northern Ireland.
- 5.7 Ulster University is delighted to have received confirmation from SEUPB recently that three projects to be led by Ulster University and another in which this University is a substantial partner have been successful in reaching Stage 2 of the INTERREG VA assessment process.
- 5.8 These projects have a value of €13.1 million to Ulster University and a total value of just over €31 million to the overall INTERREG partnerships involved in these projects.

¹ The Royal Society: UK research and the European Union The role of the EU in funding UK research, December 2015, available: <https://royalsociety.org/~media/policy/projects/eu-uk-funding/uk-membership-of-eu.pdf>

- 5.9 However, it has been suggested in an SEUPB project workshop that we should now include a 'break clause' in these project proposals after two years, to take account of the beginning of the formal exit from the EU, and to manage any potential impact of Brexit on this particular funding stream, as well as others.
- 5.10 This suggestion of a break clause raises a number of serious concerns for Ulster University.
- 5.11 In strictly financial terms, the break clause would mean that approximately €7.86 million of projected funding for Ulster University is at severe risk, in the absence of a firm commitment of INTERREG VA funding beyond the first two years of the programme.
- 5.12 Beyond Ulster, this also means that the valued and well developed INTERREG VA partnerships are at a collective risk of approximately €18.6 million in the final three years of the programme;
- 5.13 The use of a break clause presents more specific challenges in relation to the carefully developed milestones and deliverables as articulated in the stage 1 application process. For example, PhD studentships are minimally three years in duration and Ulster University would have to commit to a three year funded place for each student, while holding a guarantee of only two years of funding from the INTERREG VA programme
- 5.14 The four stage 2 proposals that Ulster University is currently progressing will, undoubtedly, connect investment in research and PhD places with tangible economic and social outcomes. We are particularly concerned that any potential curtailing of the programme duration and value will restrict the period in which the research outcomes are put to work for the benefit of our businesses and limit the economic benefit from a reduced investment to our community.
- 5.15 The PEACE programme is an EU structural funding programme that provides support to projects that promote and develop peace and reconciliation across Northern Ireland. The Chancellor's announcement on 13 August guarantees structural funding that is awarded prior to the Autumn statement.
- 5.16 However, at the time of writing, no awards have been made under the current iteration of the scheme, PEACE IV, and certain streams are not yet open to applications (including the stream to which Ulster University is prepared to apply). It is, therefore, highly unlikely that awards will be made in advance of the Autumn statement.
- 5.17 Before the next funding streams within the programme open for applications, however, there must be clarity on whether the funding will be guaranteed and how long the grants will be for. This is particularly significant as it will alter the deliverables of planned schemes and perhaps even alter the viability of projects.

- 5.18 Ulster University planned projects that will be affected by the phasing out and closure of the PEACE programme include an expansion of adult education in areas of multiple deprivation and locally rooted projects in schools that work to raise the aspirations and achievements of young people in deprived areas.
- 5.19 Such pieces of work are vital to the rebuilding of NI society, both in terms of strengthening our economy and enhancing the prospects and life chances of our people as we work to consolidate and reap the benefits of the peace process.
- 5.20 Alongside reducing the size, scale, breadth and depth of research carried out by universities, the impact of reduced and loss of access to significant research funding could involve existing research projects being undermined or, worse, left incomplete due to funding interruption if researchers are unable to secure replacement funding.
- 5.21 In Northern Ireland, the Maximum Student Numbers (MaSN) cap remains in place. Reducing research funding puts at risk Ulster University's long-term aim of reducing dependence on MaSN income and in an environment of reducing public funding, puts further pressure on the sustainability of how higher education in NI is funded.
- 5.22 Potential opportunities arising from reduced availability of research funding include the development of local funding strategies or programmes that are tailored more closely to the specific needs of our population, with UK and regional governments working more closely together to maximise the impact of funding and research.
- 5.23 Universities will also work to explore new funding opportunities outside of the EU, however, this could be a lengthy process and clarity is needed as soon as possible given the number of research projects and activities already underway that could be impacted by Britain's exit from the EU.
- 5.24 Mitigation measures should therefore include, as a matter of urgency, a commitment from UK and regional governments to underwrite any shortfall in the funding of the INTERREG VA programme, in the immediate instance, as a consequence of Brexit, due to timescale involved which sees the stage 2 applications for each project due for submission by 6th September 2016.
- 5.25 Urgent clarity is also needed on the position of the PEACE programme and the Government's intentions in relation to guaranteeing the funding this provides to support vital society enriching work.
- 5.26 More broadly, we would hope to see a commitment that the UK Government will secure or make available funds to match EU contribution and facilitate university-based research.

6. Access to research facilities

- 6.1 A key advantage for UK researchers working across the EU has been the ability to access scarce and expensive infrastructure and resources, enabling UK researchers to utilise facilities not otherwise available.
- 6.2 The best large-scale research facilities are now located in the EU, in contrast with the 1980s, when the US had more high quality research infrastructure (Gallardo, 2015). A prime example of this is the high level of international collaboration taking place at CERN, the European particle physics centre near Geneva.
- 6.3 The key risk here with leaving the EU is that UK universities will no longer have access to these specialist facilities, reducing our competitiveness in attracting global research funding.
- 6.4 Alternatively, UK universities could have to constantly renegotiate access to these large research facilities, which could also have a negative impact of the planning and delivery of research projects.

7. Bologna Process

- 7.1 The Bologna Process ensures co-operation and comparability across higher education institutions in Europe. It is particularly important for student policy through:
 - Key Action 1 (KA1): Mobility of individuals – staff and students
 - Key Action 2 (KA2): Cooperation for Innovation and Exchange of Good Practices
 - Key Action 3 (KA3): Support for Policy Reform
- 7.2 Leaving the EU will undoubtedly impact on the UK's participation in the Bologna Process, certainly weakening our influence in advance of exit and potentially our ultimate removal from it.
- 7.3 This risks undermining further all of the matters discussed above – staff and student mobility, collaborations and research funding – resulting in a negative impact on university research and activity.
- 7.4 There may be opportunities to maximise a renewed ability for UK institutions to define our own packages of work, ensuring their impact benefits our local communities. However, this must be supported by a commitment by the UK and regional Governments to appropriate levels of funding to allow delivery.
- 7.5 More broadly, there is no doubt that EU legislation supports a parity of standards, enabling cross border cooperation for research projects. EU Directives provide a framework to prioritise applied research, offering guidelines as to why research should be conducted and benchmarks to facilitate study design; therefore increasing the impact of research.

7.6 Leaving the EU brings with it the risk that a vacuum could be created in such guidelines and frameworks but more worryingly, the risk that breaking the existing parity of standards could undermine and negatively impact on the reputation of UK research globally.

8. Northern Ireland / Republic of Ireland relationship

8.1 The Republic of Ireland provides Ulster University with our largest cohort of fee-paying EU students studying at the institution. We also have strong cross-border connections ranging from the development and delivery of course provision through to research partnerships with University College Dublin and Dublin City University in key areas including connected health technology and public health.

8.2 Ulster University staff and students also benefit heavily from all-island initiatives that are dependent on EU Framework funding. For example, the US-Ireland Research and Development Partnership supports research from tri-jurisdictional teams from the USA, Republic of Ireland and Northern Ireland.

8.3 The Partnership priorities research in the core areas of health, sensors and sensor networks, nanoscale science and engineering, telecommunications, and energy and sustainability.

8.4 EU funding has been fundamental to the development and success of this programme, and others, and the UK's exit from the EU will make them unsustainable. This will in turn have a negative impact on the global reputation of our research, our ability to compete on a global scale to attract talented staff and potential students and will ultimately reduce the impact pioneering research can have on our local communities.