

**Brexit and Irish Higher Education
and Research:
Challenges and Opportunities**

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¹ The HEA hosted a Brexit Roundtable on Tuesday, 4 October 2016, with HEI Presidents or their representative, and the Chairperson of the Irish Research Council. Comments and recommendations from that event are incorporated in this paper.

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FOREWORD

This paper is an initial effort by the Higher Education Authority to map some of the issues that may arise in the higher education and research sector in the Republic of Ireland as the United Kingdom prepares to leave the European Union. The paper maps some issues, but it also points to some uncertainties; what exactly will happen, when and to what effect remain open questions. But a lack of certainty is no excuse for inertia. Negotiations need to open, and planning needs to begin. As the paper notes, we share the same higher education space as our United Kingdom neighbours, and we co-habit with our Northern Ireland colleagues. These relationships have proven resilient in the past; now we need to secure them for future generations of students, graduates, scholars and researchers, and for the benefit of all who live on these islands, and beyond.

The HEA plans to publish updates to this paper as events unfold. We will continue to lead thinking on Brexit, and inform debates while at the same time working with the Higher Education Institutions as part of Ireland's strategy to respond to the challenges ahead.

I want to thank my HEA colleagues for their contributions to this paper. Particular thanks are due to Professor Ellen Hazelkorn who led the drafting process.

Dr. Anne Looney
Interim CEO

RECOMMENDATIONS

Specific recommendations include:

- Adopt a supportive negotiating stance with respect to the future standing of UK higher education and research in post-Brexit Europe as it is in Ireland's interest to maintain and/or strengthen such links and collaborations;
 - Protect the historic and strong relationship with the UK – to facilitate academic and student mobility; residency, eligibility and fee reciprocity, and collaboration;
 - Maintain the soft border with Northern Ireland – to protect valuable cross-border flows of staff, students and collaboration;
 - Safeguard EU funding programmes benefiting Ireland and UK (e.g. Erasmus+, INTERREG) – or if necessary, develop alternative new programmes;
- Higher Education and Research should feature as a key component of Ireland's Brexit strategy because:
 - A high quality higher education and research sector can make a significant contribution to boosting the international standing of Ireland, for the benefit of Irish society and economy;
 - Stronger links between higher education, research and Irish SMEs and industry can help to cushion the impact of Brexit in the short-term and boost competitiveness in the longer term;
 - International evidence suggests that international students bring a significant multiplier effect, with estimates of benefits to the Irish economy of approximately €1.6bn per annum.¹
- Globally position Ireland as a distinctive high-quality international hub for higher education and research. In particular:
 - Boost investment in higher education and research to send a strong message that Ireland is back in business after a decade of austerity;
 - Develop and support targeted initiatives to boost graduate and researcher opportunities, experiences and collaborations;
 - Identify and develop new partnerships with other EU higher education institutions;
 - Attract large EU flagship projects/centres to Ireland.
- Act as a talent magnet, attracting the best students, academics and researchers:
 - Attract and support all international students, staff and researchers seeking to relocate to Ireland;
 - Explore new contractual arrangements to encourage and facilitate Irish and international researchers.

1. CONTEXT

This report has been prepared by the HEA as a *preliminary* overview of possible effects of the UK Brexit vote for Irish higher education and research. It pulls together initial observations from a range of sources in Ireland, the UK and internationally, and looks at potential challenges and opportunities. It is organised according to specific topics, followed by a brief overview of (what is known about) UK government and UUK (Universities UK) responses, a discussion of possible alternative UK-EU models of association, and finally consideration of Irish opportunities and actions.

A word of caution. The UK is likely to trigger Article 50 by March 2017 which would mean formally leaving the EU by spring 2019. It will still take some time to work through the implications, and to understand fully the way in which Brexit will ultimately operate. UK universities have a strong relationship with the EU, and benefit from that relationship.² Accordingly, UUK will lobby the British government for the most favourable outcome for the sector, which may include looking for alternative forms of association in order to retain links with EU partners and funding, and setting up EU-branch campuses.³ It should also be noted that until negotiations are finalised, the UK remains part of the EU, and will and can be a partner in forthcoming H2020 and other proposals.⁴

There are risks, challenges and opportunities for Ireland that can emerge from the new environment, and these should be explored. However, because it is difficult to say anything definitive at this stage, this report should be considered as an initial assessment.

2. OVERVIEW

2.1 General Observations

Before considering the implications of Brexit for Irish higher education and research, it is useful to review the macroeconomics of what could possibly happen and the impact both short and long term.

The UK government will trigger Article 50 by March 2017, setting a 2-year window for negotiations, and introduce legislation into Parliament in spring 2017.⁵ Completing treaty and associated negotiations are likely, however, to go beyond 2019 leading to continuing uncertainty. There are likely to be major implications for certain sections of the Irish economy, concentrated in the trade relationship, and affecting areas such as food, agriculture, tourism, financials and logistics (transport).⁶

There could be positives arising from any uncertainty surrounding the UK's future relationship with the European Union. Foreign Direct Investment (FDI) firms could decide to relocate from the UK to Ireland and the Irish economy could regain its attraction to Irish graduates (e.g. nurses and other health professionals) who might previously have sought opportunities abroad as well as the international talent pool; there would also be further skills needs and

hence demand for graduates. As the largest English-speaking nation within the EU, there could also be opportunities for Ireland to position itself as an attractive magnet for higher education and research talent.

On the other hand, the ESRI has suggested that “the expected increased attractiveness of Ireland to FDI is likely to be small”, and changes to the corporate tax system in the UK could increase the latter’s attractiveness vis-à-vis that of Ireland.⁷ Opinion has also seemed to have hardened with respect to the impact of Brexit on Ireland being tougher than originally thought, and the ability of Ireland to “poach UK foreign direct investment” and talent being constrained by under-investment as a result of the economic crisis.⁸ The Central Bank anticipates an adverse impact on the Irish economy, with implications for trade, FDI and the labour market, and accordingly has revised downwards forecasts for Irish GDP growth in 2016 and 2017 compared with a no-Brexit baseline.⁹

2.2 Higher Education and Research

Higher Education is a highly internationalised sector. In addition to sharing a common language (English), Ireland and the UK share a common academic and research culture. They operate in a “shared” higher education and research environment, with commonalities with respect to university/college organization, and curriculum structure and pedagogy. There is a shared research environment, in which the UK and Ireland are go-to partners for each other. Both countries also share a common Quality Assurance (QA) and peer-review culture, with continual exchange of personnel with respect to programme accreditation and research assessment, etc. There is a history of expertise and policy sharing and learning across higher education and research organisations, and inter alia: The Quality Assurance Agency for Higher Education (QAA), Higher Education Funding Council for England (HEFCE) and the UK Higher Education Academy (HEA). The UK Leadership Foundation for Higher Education (LFHE), as well as the Open University, have branches in Ireland.

Furthermore, there is a shared academic career system and environment for post-graduate and post-qualification experience. Post-doctoral fellows and early stage researchers as well as mid-career academics seek opportunities in each other’s domain. The same goes for senior academic, professorial and administrative positions.

There is a history of strong cooperation with the UK in teaching and learning initiatives, especially those funded via EU programmes. The UK Higher Education Academy (HEA) is, along with Ireland’s National Forum for T&L (through the IUA), a partner in the EUA-led EFFECT (European Forum for Enhanced Collaboration in Teaching) project¹⁰, funded through Erasmus+. The British Council is the Erasmus+ National Agency for the UK and liaises with the Irish National Agency for Erasmus+ in the HEA. The International Division of the HEA also has a close working relationship with Universities UK.

The main areas likely to be impacted by Brexit include the following:

- Student mobility and residency rules;
- International educational programmes;
- Academic/professional mobility and recruitment;
- Research collaboration and funding.

There are also lessons that could be learned for Ireland and Irish higher education from the extent to which education played a role in shaping voter responses to Brexit.

2.3 Summary of Issues & Risks, Challenges and Opportunities for HE

The Brexit vote in the UK raises many issues, which present risks and challenges for Irish higher education and research. It also provides opportunities. Table 1 below summarises some of the issues raised throughout this paper.

Table 1 Issues & Risks, Challenges and Opportunities

ISSUES & RISKS
<p>1. Student mobility and residency rules</p> <ul style="list-style-type: none"> – Change in residency requirements, and tuition fees/student loans, likely factors influencing student choice; – Students studying in either jurisdiction may be classed as Non-EU students with associated impacts on student assistance/disabilities funds and eligibility for SUSI grants; – Impact on cross-border student mobility, and recruitment; <p>2. International educational programmes</p> <ul style="list-style-type: none"> – Implications for joint programming/degrees, and other teaching and learning initiatives, especially those funded via EU programmes such as Erasmus+; <p>3. Academic/professional mobility and recruitment</p> <ul style="list-style-type: none"> – Restrictions/loss of important location for post-graduate qualifications/post-qualification experience; – Implications for graduates and professionals training and early career opportunities, and respectively for employment/unemployment in Ireland. <p>4. Research collaboration and funding</p> <ul style="list-style-type: none"> – Fewer opportunities for collaboration – with corresponding impact on Irish H2020 targets; – Loss of UK contribution could have disproportionate impact on EU/H2020 budget; – Effect on North-South collaboration programmes such as INTERREG; – Departure of strong ally in policy discussions; – Restrictions on UK research funding programmes for non-UK based researchers;

CHALLENGES
<ol style="list-style-type: none"> 1. Ireland won't have all opportunities to itself, i.e. there will be competition from other European countries with strong higher education and research sectors, English-language provision, and good societal benefits; 2. Visibility in countries with which traditionally associated are strong, but: - <ul style="list-style-type: none"> - Profile poorer elsewhere – and perception in many countries is that Ireland is part of UK and will be leaving the EU; - Rankings influence international perceptions of quality and reputation; 3. Other European countries seeking to attract mobile talent, and flagship projects; 4. Absorptive capacity - if students/professionals previously choosing UK come to Ireland, there will be considerable pressure on facilities and accommodation. 5. Historic lack of investment in the Irish higher education and research system.
OPPORTUNITIES
<ol style="list-style-type: none"> 1. Feature Irish higher education and research as a key component of Ireland's Brexit strategy; 2. Globally position Ireland as a distinctive high-quality international hub for higher education and research: <ul style="list-style-type: none"> – Boost investment in HE and research to send a strong message that Ireland is back in business after a decade of austerity; – Develop and support targeted initiatives to boost graduate and researcher opportunities, experiences and collaborations; – Identify and develop new partnerships with other EU higher education institutions; – Attract large EU flagship projects/centres to Ireland. 3. Act as a talent magnet, attracting the best students, academics and researchers: <ul style="list-style-type: none"> – Attract and support UK and international students, staff and researchers seeking to re-locate to Ireland: – Explore new contractual arrangements to encourage and facilitate Irish and international researchers.

3. STUDENT MOBILITY AND RESIDENCY RULES

In 2016, there are almost 12,000 Irish students (undergraduate and research students) studying in the UK, down from over 13,000 in 2012-2013,¹¹ and approximately 2,000 in Northern Ireland¹² (see Table 2). Ireland is 7th largest source country studying in the UK.¹³ The fall in the number of students may be due to the rising tuition level in the UK, although other factors, including the exchange rate, may explain the reduction of students in NI and Scotland where such fees do not apply.

There are probably four main categories of Irish students studying in the UK: those attending Oxbridge/Russell Group universities; those attending specialist programmes (e.g. health sciences/medicine); those seeking “alternative” entry onto programmes which they could not access in Ireland due to CAO point level or available places; and those undertaking postgraduate taught studies or research programmes. Depending upon motivation and associated costs of studying in the UK, some of these students are likely to remain in Ireland with knock-on implications for the Irish post-secondary system as a whole.

Table 2 Irish Domiciled Students in UK

Irish Domiciled Students	2010/11	2011/12	2012/13	2013/14	2014/15	% change 2013/14 to 2014/15	% change 2010/11 to 2014/15	% of all IE students in UK 2014/15
in English HEIs	8520	8015	6705	6200	5875	-5%	-31%	54%
in Welsh HEIs	1110	910	740	645	575	-11%	-48%	5%
in Scottish HEIs	2965	2630	2340	2225	2110	-5%	-29%	19%
in NI HEIs	4285	3520	2835	2420	2345	-3%	-45%	22%
Total	16875	15075	12620	11490	10905	-5%	-35%	100%

NB. These figures do not include short-term exchange students such as Erasmus.

Source: www.hesa.ac.uk

Conversely, there are currently 2,339 full-time UK students studying in Ireland (see Table 3).

Table 3 Full-time Students Studying in Ireland by Domicile

Domicile	Number of Students	% of Total
Ireland	157,966	88.1%
Northern Ireland	791	0.4%
Great Britain (excluding Northern Ireland)	1,548	0.9%
Other EU	2,880	1.6%
Non-EU	15,600	8.7%
Unknown	569	0.3%
Total FT Enrolments 2016	179,354	100.0%

3.1 Student Tuition Fees/loans: Residency and Nationality Rules

Under existing rules, all EU students are treated the same as a national from the country in which they are studying. Depending upon the terms of Brexit and whether an alternative arrangement emerges, there are several implications.

If an EEA-type arrangement emerges, UK students coming to Ireland or Irish going to the UK will probably continue as are and vice versa. However, if a “hard”-Brexit emerges, then Irish students could be treated as international students; students studying in either jurisdiction may be classed as non-EU students and may be charged non-EU Fees. EU postgraduate students already pay fees.

Changes in residency requirements, and ability to access EU-level tuition fees or the UK student loan scheme, or to avail of each jurisdiction’s student support programmes (e.g. disability) are likely to be factors influencing student choice as it is not clear that they would continue to have such benefit. The variability of exchange rates could become another factor. There could also be costs to the Irish state depending upon the extent to which it maintains financial support for Irish students studying in the UK.

If Irish students who previously chose to study in the UK (because of the particularity of their programme choice) decide to stay in Ireland, this could impact on CAO offers, and available places and facilities. There are also implications for Irish students entering their senior cycle in secondary schools who might previously have considered studying in the UK; given the uncertainty, they may focus on Ireland or another European-based institution.

The Netherlands has been attractive because of their strong English-language provision but numbers are still quite small; in 2012, there were c.300 students studying in NL.¹⁴ Nonetheless, a 2014 study indicated that 27% of the Dutch HEIs surveyed offered at least one English-language programme, and about 6% of all study programmes are provided exclusively in English. The Netherlands (with 13 universities in the *Times Higher Education Global Rankings* top-200)¹⁵, Denmark and Sweden are leaders in English-language provision.¹⁶ Sixty percent of courses at universities in the Netherlands are now taught in English; for master's programmes, the figure rises to 70%.¹⁷

These different scenarios will raise competitive, investment, and absorptive capacity challenges for Irish higher education.

There could also be implications for Irish HEIs, especially along the border, which have sought to extend their recruitment to NI students, especially progression routes for further education students, and vice versa. Brexit is unlikely to affect the calculation of international students or staff for the purposes of global university rankings, however, because this is usually determined by country of citizenship, even within the EU.

Because of the potentially lengthy negotiations it is difficult to gauge the impact on students – the reclassification from EU to non-EU, and as a consequence the impact on exchequer

finances. Ministers have said that EU students in the UK will continue to be able to access student loan funding for the entirety of their course if they enter university in the 2016-17 admissions year.¹⁸ While such assurances are currently limited to those years, the UK will remain a full member until 2019.

The IUA has also issued reassurances to all UK students currently studying at an Irish university, and to those planning to enter in 2016, that their EU fee status remains unchanged. A similar request has been sought from the HEA. This position will have to be reviewed regularly as a new relationship between the UK and EU emerges.¹⁹

3.2 Student Assistance Fund (SAF)

Support under the SAF is only available to students studying in participating institutions in the state. The only criterion is that the student must be doing a fulltime course and attending on a fulltime basis. There is no residency or nationality criteria that must be met to receive support under the Fund, but note the following from the SAF guidelines:

Each institution is requested to supplement their SAF allocation from their own resources (e.g. Non-EU fee income) or from private sources. In particular, the HEA requests that institutions with significant numbers of international students ring-fence a small fund from Non-EU fee income to provide for any emergency financial requirements arising for international students. More broadly, student welfare initiatives are very appropriate areas for funding contributions from the corporate sector and alumni.

Given that the UK represents almost 45% of EU students in Ireland, this could throw a significant number of current students into financial difficulty (if UK students are charged non-EU Fees). Also the expectation would be that rather than the SAF being used as a source of support for these students, as above and currently with non-EU students, colleges would be expected to ring-fence money separately from the higher fees to support this groups.

In the future it could also act as a barrier to UK students from access target groups coming to Ireland to study. While there is not systematic data gathered on the nationality of SAF recipients, based on participation among students generally, it is estimated that of the 15,000 SAF recipients in 2015-16, about 200 of these were from the UK or NI and might therefore be affected.

3.3 Student Disabilities Fund (FSD)

Support is available under the Fund for Students with Disabilities for students from Ireland who travel to study in Northern Ireland and in the rest of the UK. In terms of eligibility for the FSD, a student must be a participant on an approved course, understood as a course approved for the purposes of the SUSI grant. The SUSI regulations treat Northern Ireland separately in

that full-time postgraduate students, as well as undergraduates may be eligible for support. In other EU countries, students on undergraduate courses only are eligible. England, Scotland and Wales are treated as “Other EU” countries for the purpose of the FSD.

If the UK formally leaves the EU, Irish students going to the UK and possibly also NI, may cease to be eligible for support under the FSD unless an alternative arrangement is put in places. In 2015-16 there were 212 Irish students with disabilities who received support through the FSD for study in the UK or NI.

3.4 SUSI Grant Schemes

These issues would have a wider relevance in the SUSI grant schemes. Within the terms of the current schemes, students from Ireland going to the UK or NI will not be eligible to carry their grant support with them, as those jurisdictions will be outside the EU.

Details of the number of undergraduate and postgraduate students awarded SUSI grants in the UK or NI in 2015-16 are shown in Table 4 below. Support for post-graduates is limited to Northern Ireland and is intended to promote greater tolerance and understanding between the people of Republic of Ireland and Northern Ireland.

Table 4 Total No. of Students awarded SUSI Grants in 2015-16 studying in the UK, including Northern Ireland

Country	Total Awarded Undergraduate & Postgraduate Students, 2015-16
England	804
Scotland	245
Wales	84
N. Ireland	314
Total	1447

NB. This includes ROI nationals and other eligible nationals studying in the UK; eligibility is based on residency in the “State for at least 3 years out of the period of 5 years ending on the day before the relevant date”.

3.5 Impact on cross-border student mobility, and recruitment

There are many unknown issues around free movement which may impact on students and graduates. Restrictive migration policies have already hampered UK recruitment of non-EU students, and Brexit could make the UK an even less attractive destination for students.²⁰ The ease of cross-border travel might need to be factored into discussions if a “hard” border reappears. If the UK were to proceed toward the much mooted Australian model of

immigration control, which assesses people on the basis of qualifications and skills, age and English language, this could have a significant impact both on study choice options as well as on the important postgraduate and post-qualification experience opportunities.

4. INTERNATIONAL EDUCATIONAL PROGRAMMES

The number of international tertiary students enrolled worldwide has increased by 50% between 2005 and 2012. As many as 4.5 million students were enrolled outside of their home countries in 2012 and the total number is estimated to have surpassed five million by this year.²¹ In Ireland, international student recruitment has become a vital source of income in addition to underpinning the internationalisation of educational programmes (“students as global citizens”) and the creation of a “new diaspora”.²²

Currently, there are 15,600 full-time non-EU students studying in Ireland or 8.7% of the 179,354 total full-time enrolments, and 2,880 full-time EU (excluding UK and NI) students or 1.6% total students (see Table 3 above). In comparison, there are 493,570 international students in the UK, including transnational students studying off-shore in branch-campuses or in other types of programmes.²³ There are more than 70,000 EU students coming to the UK each year, bringing the total to ~125,000 EU students in UK higher education, equivalent to 6% total students, and more than 5% of undergraduates.

That Ireland will be the largest English speaking country in the EU may play to Ireland’s advantage.²⁴ There is already evidence of nervousness amongst potential international students keen to pursue studies in the UK, and this may be an opportunity for Ireland.

The *International Education Mark*²⁵ being developed by QQI could be developed to help maintain and monitor quality, and underpin and market Ireland’s attractiveness. These are aspects highlighted in the new international strategy for Ireland.²⁶

4.1 Erasmus+

Erasmus+ is the major EU undergraduate mobility programme, established in 1987;²⁷ since then, a total of 50,000 Irish students have participated. Ireland currently sends over 3,000 students on study and work abroad schemes each year drawn from 35 higher education institutions. In contrast, Ireland receives over 7,000 students annually. Of this number, approximately 300 UK students come to Ireland annually,²⁸ while approximately over 400 Irish students and almost 40 staff travel to the UK.²⁹ Overall, there is an imbalance in the number of Irish Erasmus students out-going vs. the number of EU students in-coming to Ireland, by a ratio of over 2:1.³⁰

These numbers should be compared with the approximately 27,000 EU students who choose to go the UK under the Erasmus programme. Thus, there may be mutual interest in seeking a way in which the UK can continue within the Erasmus/Erasmus+ programme. On the other

hand, for the UK to retain participation in the programme, the UK will probably need to accept the principle of mobility.

The UK's position within the Erasmus/Erasmus+ programme remains uncertain, because the programme imbues the concepts of mobility across Europe.³¹ That programme is an EU programme operated through DG Education and Culture (DG EaC). In addition to student and academic mobility implications, it also supports programme and some related type research. There would be other implications for collaboration. The European University Association (EUA) has issued a statement to express its continued support for British universities³², but their status within schemes such as Erasmus+ would need to be determined.

In contrast, the UK will remain part of the Bologna process. This is an inter-governmental process not an EU process (albeit the EU is now involved). It is responsible for the European Higher Education Area (EHEA) through the Bologna Follow-Up Group.³³ Accordingly, UK universities are likely to continue to retain and build upon its relations with European partners via the EHEA.

Ireland could become a receptive Erasmus host. There could, however, be cost implications for Ireland on the basis that Erasmus students do not pay fees to their host institution. Instead, students contribute or not according within their national system. If a percentage of students currently going to the UK decide to come to Ireland for an English-language experience, there would be additional costs for Ireland. While there is potential to restrict numbers based upon the terms of institutional agreements between Erasmus partners, Erasmus "has supported mobility and exchanges for students, teachers, academics, staff and researchers", and as such is an important component of Ireland's internationalization strategy.³⁴

Another possible outcome might see a greater take-up of continental languages by Irish students in preparation for alternative Erasmus opportunities.

5. ACADEMIC /PROFESSIONAL MOBILITY AND RECRUITMENT

Mobility is a core principle and attribute of academic life, and a fundamental EU principle. Hence, there is strong commonality, interconnectivity and mobility between the UK and Ireland academic labour market. Many Irish academics have acquired their post-graduate qualification or post-qualification experience in the UK, and vice versa. More caution with respect to mobility and recruitment, both into and from, the UK is a strong possibility.

For example, the UK has been a first-port-of-call for career academics and researchers, as well as for graduates of all disciplines seeking employment opportunities. This includes the mobility of staff via the Erasmus+ programme where the UK is a key partner location. To some extent the UK has been an accessible safety valve; reduction of such opportunities could have implications for graduates and professionals, and for employment/unemployment in Ireland.

There were 2,330 Irish staff working in UK HEIs in 2014-15 according to HEFCE; this is the 7th

largest nationality overall, ahead of Australia, Canada, India.³⁵ There were 43,000 EU-citizen staff working in UK universities. Future recruitment of may require a work permit unless the UK concludes an agreement similar to Norway and the other EEA countries. There could also be a big impact on HEIs which rely on the UK for English-speaking academics and researchers, who operate within a shared academic culture.

There is considerable discontent amongst researchers and academics in the UK. Thus, those who might previously have sought employment in the UK could seek an alternative employment and career base in Ireland. A recent study by DAAD, the German academic exchange organisations, suggests that up to 15% of staff at British universities could leave the UK.³⁶

Much of the immediate uncertainty may settle down over the next months. Nonetheless, there is potential for Ireland to act as a talent magnet, attracting the best researchers and those who hold EU grants (especially European Research Council grants) to come to Ireland.

Implications also extend beyond the higher education sector. The ESRI, for example, has suggested that if the UK becomes less attractive for Irish graduates and other EU citizens who would otherwise have sought employment in the UK, there could be knock-on implications for the Irish labour market. It estimates that the result of 60,000 people who might otherwise have left Ireland or emigrated to the UK – but have now chosen to stay or come to Ireland – could result in a 4% fall in wages.³⁷ Furthermore, Ireland's attractiveness could also be affected by concerns over salary scales, accommodation and facilities, and services.

6. RESEARCH COLLABORATION AND FUNDING

There are several implications stemming from Brexit which could influence and affect future research opportunities. Given the close academic and research networks between Ireland and the UK, this could have implications for future research collaboration and opportunities. In other words, there could be fewer opportunities for collaboration.

6.1 Horizon 2020 and Other Research Programmes

There are two significant issues concerning research: i) the level of research collaboration between UK and Irish researchers, and ii) the level of UK contribution and success.

- The UK is Ireland's largest research partner under H2020 – with 13.4% of projects won, followed very closely by Germany (13.3%) and Spain (10.9%). The UK is also the largest collaborator for academic, and the second largest non-academic collaborator for SFI-funded researchers, followed by the US and Germany. The same pattern was evident in EU Research Framework Programme 7. Then, 72% of the total Irish drawdown was for projects involving a UK partner; almost 50% of Irish-based applications to and successful recipients of the EU-funded Marie Skłodowska-Curie research awards choose the UK as their destination, around five times greater than the next most favoured countries.³⁸

- The UK currently contributes €5.4bn to EU research, development and innovation, and receives back €8.8bn in funding. Within this, UK universities benefit from approximately £2bn (~€2.38bn) a year or 15.5% funding from *Horizon 2020*, second of all participants.³⁹ Approximately 10% of UK public funding for science came from the EU during 2007-2014. Of the UK's international collaborations, 80% include an EU partner.⁴⁰

There is already evidence that the uncertainty generated by Brexit has begun to lead to some hesitation on the part of researchers both in the UK and elsewhere in the EU to advance collaborative research projects. A survey of the Russell Group reveals a backlash against academics primarily working in the natural and social sciences, and engineering.⁴¹ There have been reports of researchers in a University of Sheffield physics department being dropped from a project⁴², and of an EU project officer recommending dropping all UK partners from a research group because their share of the funding could not be guaranteed.⁴³

It was in response to these accounts that the UK government issued its statement confirming that it will continue to honour all existing H2020 research partnerships.⁴⁴ The official statement says that “until the UK leaves the EU, EU law continues to apply to and within the UK, both when it comes to rights and obligations. This includes the eligibility of UK legal entities to participate and receive funding in Horizon 2020 actions”.

The loss of the UK contribution could have a disproportionate impact on research and innovation (extending beyond H2020 and including regional funding) if the overall EU budget has to be re-adjusted. Any change in the UK contribution to the EU, and hence to H2020, or to the role of UK universities and researchers in EU programmes (across all DGs) will have knock-on implications. It could reduce the overall EU pot of money⁴⁵, although this may not have a big effect on research given the UK success rate. Instead, to retain the current EU budget, there could be increased member contributions which would affect the Irish budgetary scenario.

The IUA has noted some concerns about project evaluations not looking favourably on application with UK partners – whether conscious or unconscious bias exists. Furthermore, given the uncertainty, the IUA MSCA NCP is currently advising Marie Curie applicants to put a risk management plan in place should a partner need to pull out.⁴⁶

There are also research linkages with Northern Ireland, through the Special EU Programmes Body (SEUPB) and the North-South Council via INTERREG programmes.⁴⁷ In addition, there are other cross-border and research linkages between researchers, SMEs, and local authorities, such as the Ireland Wales programme.⁴⁸ The H2020 North-South collaboration is continuing to operate on a “business as usual” basis; results so far indicate a 62% increase in North-South research funding has already been secured, compared to the same period in FP7.

At a wider level, the UK has frequently been a strong ally for Ireland in terms of policy discussions. While Ireland has a good track record in building coalitions with other countries, including smaller ones, the loss of our nearest neighbour at the table could affect future EU research policy development.

On the other hand, the absence of the UK as a major player in EU programmes could open up new opportunities for Irish researchers as EU and other international researchers seek an English-language partner.

6.2 UK-Based Research Funding Programmes

Irish researchers have been eligible for various UK-based funding programmes, including those by science-based foundations, such as the Wellcome Trust, and the various research councils (now clustered under Research Councils UK). There may be a knock-on impact with respect to the SFI-Wellcome Trust, and other bilateral, research agreements.

If the UK decides to redirect its own funding to UK-based researchers only, this could have knock-on consequences for Irish researchers. There could also be implications for other cross-border initiatives arising from the re-establishment of a “hard border”. The RIA has warned that any such imposition could “compromise various EU-funded North-South initiatives as well as interrupt or curtail cross-border flow of researchers and students, as well as major research and teaching collaborations of benefit in promoting peace, prosperity and stability, in both parts of the island.”⁴⁹

7. REGIONAL/CIVIC ENGAGEMENT AGENDA

The Brexit vote was strongly shaped by socio-economic, educational and geographic factors. Those voting to remain within the EU tended to be younger, higher education graduates and professionals, and living in large urban centres, notably London and environs. There were additional factors influencing the vote in Scotland and NI. In contrast, those voting to leave the EU tended to be from disaffected cities and regions, often with higher unemployment levels.⁵⁰ One of key findings emerging from the Brexit vote was the way in which university cities voted to remain but their hinterland voted to leave.⁵¹

- 15 of the 20 local authority areas with the lowest level of educational attainment voted to leave while all 20 of those with the highest levels voted to remain.
- Support for remain ranged from 18% of those with no formal education, 28% with primary education; 36% with secondary education; 57% among those with a degree; 64% of those with a postgraduate qualification to 81% of those currently in full time education.
- The Leave vote was 30 percentage points higher among those with only GCSEs compared to those with a degree.⁵²

In the aftermath of Brexit, attention amongst UK universities is being given to the role of higher education with respect to the engagement agenda – and the gulf that has opened between pursuit of global recognition in preference for research focused on societal challenges and societal impact.⁵³ Similar issues have arisen in the aftermath of the US

Presidential election (2016) which revealed a large gap between how universities/university towns and other parts of the country voted.⁵⁴

There are lessons here for the engagement agenda which is a strong part of the *National Strategy for Higher Education to 2030*⁵⁵, and the role of higher education institutions in Ireland.

8. UK RESPONSES AND ACTIONS

8.1 UK University Concerns

UK universities which have very strong international reputations, e.g. Oxford, Cambridge, UCL, Edinburgh, St. Andrews, etc., will probably be able to resist many potential downsides of Brexit, and adapt accordingly. Lesser known members of the Russell Group, and all other institutions are likely to face bigger challenges.

The following concerns have been identified, under three headings:⁵⁶

- People: Immigration status of current and future students and staff; retention of EU staff; attractiveness of the UK for EU/non-EU students and staff; attractiveness of UK as a research partner; current and prospective international students and staff feeling less welcome;
- Access to Networking and Funding: EU research programmes and funding; student finance; Erasmus+; ERDF, ESF and innovation funding; Access to finance via EIB; Funding from UK government with economic uncertainty;
- Regulatory and other issues: regulatory environment governing research collaboration; macro-economy and currency fluctuations; anti-expert feelings; social cohesion and regional divisions; calls for second Scottish referendum.

Accordingly, UK universities will aim to influence the outcome of Brexit negotiations. Possible actions include:

- Separate short term, such as student residency eligibility, and longer term issues, such as investment strategies for UK research;
- Promote positive role for universities in post-Brexit UK, and supporting government in the negotiations;
- Focus on four key issues: support to maintain and enhance research collaboration and innovation; policies to enhance UK as attractive destination for talent; increased public investment in the UK research base; and support for UK students and staff to access vital global opportunities.⁵⁷

There may also be an effort to use alternative non-EU government agencies, such as EHEA, as a way to retain and build collaborations across educational programmes, mobility, research, etc.

Another option being mooted would be for UK universities to establish EU branch campuses which would allow them to maintain partnerships with other EU universities, and continue to participate in EU programmes. This would “spread their risk in the event of a dramatic ‘hard Brexit’, and it might offer a way of retaining and attracting staff who needed to work within the EU.”⁵⁸

8.2 Possible Future Arrangements

The UK government has given assurances that it will continue to fund H2020 research until exit. Similar pledges have been made to various ministries, and ministries in the UK nations, about the continuation of other funding and in some instances increases in funding.⁵⁹ In other words, they will be seeking to cushion any (immediate) uncertainty.

It is still very early days, and thus any discussion of future UK-EU arrangements are highly speculative. Trade and other inter-governmental arrangements are, by their nature, highly complex and time-consuming.⁶⁰ Depending upon the future model of association with the EU, educational collaborations, mobility and research eligibility may be affected – or at least restricted to particular programmes.

There are several possible models for future UK association with the EU:

- Switzerland had a separate agreement with the EU on participation in Horizon 2020 and Erasmus+. This was changed in response to Switzerland voting to restrict free movement for labour.⁶¹ It now forms part of region five of Erasmus+ partner countries (along with Andorra, Monaco, San Marino and Vatican City), which gives it restricted access to a reduced number of activities and only under the conditions applying to organisations from partner countries. It also has only partially association to Horizon 2020, covering Excellent Science (the pillar covering the ERC, Future and Emerging Technologies, Research Infrastructures, Marie Skłodowska-Curie actions), Actions under the specific objective "Spreading excellence and widening participation"; the Euratom programme, and limited other actions etc.⁶² This deal, based on additional contributions, will fall by end 2016 unless Switzerland ratifies the Croatia treaty.⁶³
- Norway, Liechtenstein and Iceland have, through EFTA, negotiated the EEA (European Economic Area) agreement with the EU. This allows these countries participation in Horizon 2020 and Erasmus+, and has also led to the application of certain EU rules, e.g. students from the EU may not be charged higher tuition fees than own nationals. These countries also contribute to the EU for their participation in these programmes.
- Israel pays membership fees to participate in the Horizon 2020 programme. In contrast, it participates in Erasmus+ as a partner country. This means that not all elements of the programme are open to Israeli institutions and accordingly, Israel has a different status than European countries. The actions that are open to Israel are those that are open to the Southern Mediterranean region. There are no membership

fees for participation as a partner country.

These examples illustrate that any other arrangements are likely to be less advantageous, at least in the short term. It also shows that bilateral (and also multilateral agreements) in the area of education and research are often linked to other policy fields as well, like free movement and migration.

Should the UK leave the EU and restrict freedom of movement, it is likely to have no access to Horizon 2020 beyond that of third country status (Afghanistan, Argentina etc.). If it does not join the Erasmus+ programme as a programme country (which has a high entry ticket fee), it would likely be part of the Region of Industrialized Countries which includes the U.S., Canada, Japan, Australia, etc. These countries can participate in International Credit Mobility (but do not receive large budgets), Erasmus Mundus Joint Masters Degrees and other smaller actions when they can display added value.

On the other hand, there is a mutuality of interest: EU programmes have helped build UK science to its current international standing while UK research is a significant player for helping reach *Europe 2020* and *H2020* goals; the UK manages 20% of H2020 projects. The UK is a major host country for international and Erasmus/Erasmus+ students. Given the almost 500,000 students, it is unlikely that other EU countries could attract and/or absorb these numbers. There will also be concerns about the exit of UK researchers. UK and Swiss researchers are likely to emphasise these points when their negotiations come around for both countries.⁶⁴ This could result in a special agreement which would include the UK negotiating associated country access⁶⁵ or a bilateral agreement with the EU to have access to parts of Horizon 2020 and remain a non-associated third party in relation to others – as the above examples illustrate.

9. CHALLENGES AND OPPORTUNITIES FOR IRELAND

The post-Brexit environment will present challenges and opportunities for Irish higher education and research. Ireland may be the largest English speaking country in the EU post-Brexit and could prove an attractive location for students, researchers and professionals seeking an alternative English-speaking EU destination, but other European countries have been building up their English-language provision – a trend likely to continue. Thus, Ireland won't have all the opportunities to itself. Other EU countries are also eyeing-up the new environment and the social environment of other European countries e.g. health insurance, childcare and other societal benefits, could make Scandinavian countries as well as the Netherlands, Belgium, France, etc., competitively attractive.

Ireland has great visibility in countries with which we have traditionally had strong linkages. However, our profile elsewhere is poorer. Indeed, there is a perception in many countries that Ireland is still part of the UK and will be leaving the EU.

The position of our HEIs in global university rankings – and public pronouncements about Irish

HEI's position in the rankings – will be important. Regardless of the huge limitations about what rankings measure, they can affect reputation and status internationally. They are part of the global brand and say something about international positioning and recognition.

There are suggestions that Ireland might seek to attract the European Medicines Agency, or similar flagship projects to Ireland. Other European countries are considering similar actions, as well as seeking to attract mobile talent.⁶⁶

Therefore, Ireland's ability to take advantage of the new situation depends upon it being internationally recognised as a high quality education and research location, which has implications for the level of on-going investment and capacity, salary and other benefits etc.

If Ireland is successful in attracting new talent, there will be considerable pressure on the physical resources (e.g. facilities and accommodation) and human resources (e.g. status of the Employment Control Framework). There will also be cost implications – with respect to increasing and improving facilities and accommodation; these could become impediments. There are also costs associated with attracting greater numbers of Erasmus students and the level of support that they need.

Public statements and actions will be important in framing the story about Irish higher education. The outcome of discussions on the future funding of higher education and research, including the next phase of PRTL, will be critical.

9.1 Attracting Talent

There are good opportunities to position Ireland as a magnet for higher education and research talent – across the EU, and internationally.⁶⁷ There are opportunities to attract good UK and international students, academics/professionals and researchers who wish to study, work and/or remain within the EU – with access to the European education system, the labour market, and EU research opportunities which go beyond Framework Programmes (H2020), and include inter alia Marie Curie, ERC, Erasmus+, etc. Care needs to be taken, however, to develop a balanced approach – that continues to strengthen and support an Irish research pipeline while also opening up opportunities to attract international scholars and researchers.

International evidence suggests that international students bring a significant multiplier effect, with estimates of benefits to the Irish economy of approximately €1.4bn per annum.⁶⁸ International students form a new diaspora and graduate pool in their home country for Irish SMEs, as well as helping promote Ireland abroad. There are also significant tourist benefits; for example, Erasmus students spawn approximately four (subsequent) visits from friends and family.

9.2 Globally position Ireland as a distinctive high-quality international hub for higher education and research

There is an opportunity for Irish researchers and other nations to break through⁶⁹ and establish themselves as the partners of choice for anyone wanting to have an English speaking partner in an EU research application, and to hold a highly prestigious and competitive European Research Council grant at an English-speaking university. There are also potential opportunities to identify new partners, and to collaborate with other EU countries looking for new partners.

There are also research opportunities beyond Framework, such as EDRF/Structural funds, including funding for INTERREG and smart specialisation, the latter of which recognises a particular role of higher education. These programmatic aspects are unlikely to be included in the final agreement.

Making and strengthening connections and collaborations with countries on the continent can be costlier in terms of both time and money. Thus, strategies and initiatives to help develop and support Ireland's research social networks would therefore be important.

The evaluation of EU bids is a complex and labour-intensive process and in the absence of UK evaluators, Irish academics may be called upon more frequently. This could present a good opportunity for Ireland to help us to shape future calls/policy.

There may also be opportunities for enterprise and venture funds, especially those supporting start-ups, which would previously have considered making new investments in R&D in the UK. Ireland could be a preferred site for EU research centres wishing to relocate, but there will be competition for these prestigious centres.

9.3 Higher Education and Research Investment

There is likely to be increased demand for high-level service-sector skills in addition to the skills required for projected net job increases over the next few years due to the projected buoyancy of the Irish economy, and increased FDI and relocation of financial services, etc. due to Brexit. These developments have potential positive funding implications for higher education and research.

The historic lack of investment in the Irish higher education and research system could be a rate-limiting factor in the realisation of these opportunities. Additional support from the Government during the (long) Brexit negotiating period would help this. Such support may be available to Irish agriculture and SME sector,⁷⁰ and therefore the HEA should seek to take advantage of this opportunity to strengthen its competitive advantages.

Investment in infrastructure and research opportunities as per *Innovation 2020* (e.g. frontiers programmes and postgraduate/postdoctoral programmes), a new PRTL programme, and/or

a special programme for recruitment of exceptional or emergent scholars could help send a strong message that Ireland is back in business after a decade of austerity.

NOTES

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⁴ UUK (2016) Brexit FAQs”, <http://www.universitiesuk.ac.uk/facts-and-stats/Pages/Brexit-faq.aspx/register/Documents/Universities-for-Europe-toolkit.pdf>

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²⁷ European Commission (2014) *Erasmus. Facts, Figures & Trends*, Brussels. http://ec.europa.eu/dgs/education_culture/repository/education/library/statistics/ay-12-13/facts-figures_en.pdf

²⁸ For 2014/2015, there were 265 students coming from the UK under the Erasmus+ programme.

- 55 on Study Mobility
- 210 on Placement/Traineeship mobility

In 2015/2016, the figures thus far total to 309:

- 54 on Study Mobility
- 255 on Placement/Traineeship Mobility

Note that 2015/2016 numbers are not final, which means the number of incoming students on placement from the UK to Ireland under the scheme increased in more than 16%.

²⁹ Final figures for students and staff on mobility to the UK the programme in 2014/2015:

- Students – Total 421
 - Students on Study Mobility – 118
 - Students on Placement/Traineeship Mobility – 303
- Staff – Total 37

³⁰ In 2014/2015, Irish HEIs sent a total of 3,144 students to countries across Europe under the Erasmus+ programme on both study and placement/traineeship mobility. In the same year, Ireland welcomed a total of 7,062 European students, 4,657 of which went through the higher education system and 2,405 were in Ireland on placement/traineeship. The ratio varies according to the sending country. France for instance – most popular destination amongst Irish students – welcomed 545 Irish students on study mobility in 2014/2015, whilst Ireland received 1,495 French students on study mobility. Germany as the second most popular destination received 366 Irish students on study mobility in the same year, and sent 978 German students to Ireland on study mobility.

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