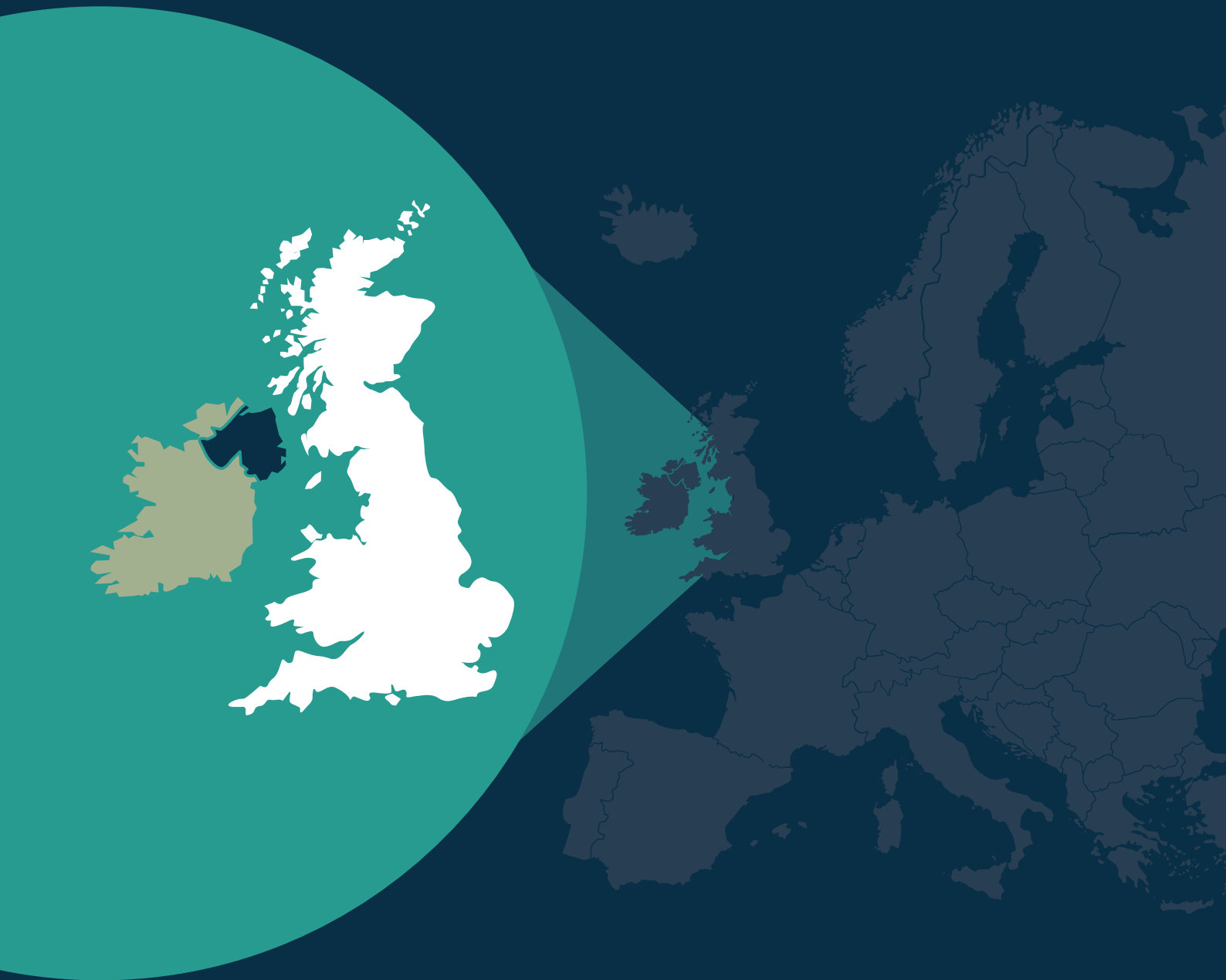




Acadamh Ríoga na hÉireann
Royal Irish Academy

Higher Education and Research in Northern Ireland Post-Brexit

RIA Brexit Taskforce



Background

Operating as an independent all-island body, the Royal Irish Academy / *Acadamh Ríoga na hÉireann* (RIA), is Ireland's leading body of experts in the sciences, humanities and social sciences. In March 2017 the RIA established a high-level Taskforce to consider the implications of the United Kingdom's decision to leave the European Union for higher education (HE) and research across the island of Ireland. This Taskforce (co-chaired by Professor Jane Ohlmeyer, MRIA and Professor Gerry McKenna, MRIA), was divided into two Working Groups to explore the respective sector-specific concerns and challenges arising from Brexit for the Irish and Northern Ireland higher-education systems. This brief paper sets out the key findings of the Northern Ireland Working Group (NI WG), presenting a set of recommendations in response to the challenges posed by Brexit and a suite of 'opportunity strategies' designed to enhance the future capacity of the Northern Ireland HE sector. It is intended that this paper will inform the Northern Ireland contribution to the strategies of the Irish, UK and EU Brexit negotiating teams; the NI WG will also continue to offer views, responses and advice on emerging policy positions.

Methodology

The NI WG met on six occasions between March and September 2017 and engaged in a wide-ranging consultation and data-gathering exercise with key stakeholders in the Northern Ireland HE and further education (FE) sectors, representatives from key government departments (e.g. the Department for the Economy), state agencies, political representatives, civil society organisations and representatives from the arts and cultural sectors.¹ This exercise was complemented by a high-level stakeholder forum held in Clifton House, Belfast on 28 June 2017 and a review of emerging position papers by a range of Irish, UK and EU stakeholders. The NI WG, through the RIA, has actively contributed to discussions with the UK national academies aimed at highlighting the key concerns of the Northern Ireland HE and research communities.

The results of a May 2017 RIA survey of the academic community on the island of Ireland have also been fed into the deliberation of the NI WG. Of the 390 responses received, 45 per cent were from Northern Ireland. Of these, 96 per cent indicated their belief that Brexit was likely to have a negative impact on HE in Northern Ireland with no positive potential benefits accruing to the sector as a result. The nature of the shared land border between Ireland and Northern Ireland was also repeatedly highlighted as a unique and important issue, with respondents frequently drawing attention to the need to maintain an open border to allow academic and research staff and students to travel freely.² The full results of this survey are available to download on the RIA website at: www.ria.ie.

96 per cent of respondents indicated their belief that Brexit was likely to have a negative impact on HE in Northern Ireland with no positive potential benefits accruing to the sector as a result.

¹ A full list of the stakeholders consulted is available in Appendix I.

² RIA, *Brexit Taskforce Survey Results: Impacts and Opportunities for Higher Education and Research on the Island of Ireland Post-Brexit*, June 2018.

The importance of Higher-Education to Northern Ireland

A well-developed higher-education and research system is a key driver of knowledge-based economic prosperity. Not only does the system produce highly skilled graduates, it encourages research and knowledge transfer necessary to support evolving economic, social and cultural needs. In Ireland growth has been linked by successive governments to expansion in higher education. Northern Ireland, however, is particularly dependent on the economic and social benefits of higher education, especially as it attempts to rebalance its economy by encouraging the development of a knowledge-based industrial sector. The two largest universities (Queen's University Belfast and Ulster University) are already major economic enterprises, with their combined activities in 2013 generating over £1.5 billion in output and 2.6 per cent of Northern Ireland's Gross Added Value (GVA).³ Moreover, through their engagement with EU research funding programmes, the universities offer a series of incentives to foreign direct investment (FDI), including access to talent, stability, research excellence, research facilities and knowledge transfer. For an economy that is still heavily dependent on the public sector, the attraction of greater FDI (as outlined by the 2015 Fresh Start Agreement) forms the centrepiece of an economic strategy aimed at rebalancing and developing the Northern Ireland economy. A strong, functioning, world-class HE sector is a mission critical to the delivery of this vision.

Leaving aside the instrumental arguments highlighting the economic impact of the HE sector, it is arguable that HE plays an even more critical role in promoting the functioning of a stable post-conflict society in Northern Ireland. Strand 2 of the Good Friday Agreement recognises education as a powerful social integrator to secure the peace process by contributing to economic competitiveness and social cohesion across the island. These activities have been promoted by

various EU funding initiatives, including the INTERREG IVA Programme (a regional structural funding programme for Northern Ireland, the border regions and western Scotland), the EU Programme for Peace and Reconciliation in Northern Ireland (PEACE Programme) and successive EU research Framework Programmes, including Horizon 2020. These activities have been greatly facilitated by the invisible border between both parts of the island resulting from common membership of the European single market. Encouraged by the Good Friday Agreement, the island of Ireland continues to accrue significant benefits from the development of a de facto all-island research system that operates in key sectors such as agriculture, food and nutrition, health, biotechnology and pharmaceuticals, engineering and informatics, and from the social dividends arising from the cross-border flow of people to study and work in HE. Increased cross-border mobility is also recognised as an important factor in promoting reconciliation across the island by providing students with the opportunity to study in the neighbouring jurisdiction.⁴

Equally, the Northern Ireland universities have been key players in implementing Strand 3 of the Good Friday Agreement, promoting greater cooperation and interaction between Northern Ireland, Ireland and Britain. This is evidenced by the increased volume and range of research collaborations involving Northern Ireland, Ireland and British partners. The development of a vibrant HE sector in Northern Ireland is therefore essential to maintaining and reinforcing the peace process through the continued promotion of inter-community stability, especially at this moment of intense political instability and uncertainty, both domestically and internationally.

³ RIA, *Advice Paper No. 10: The Sustainability of the Northern Ireland Higher-Education Sector*, April 2016, p. 3.

⁴ Joint RaISE/L&RS Briefing Paper, *Access for Students to Third-Level Education in the Respective Jurisdictions (i.e. Northern Ireland and Ireland)*, 8 October 2014, p. 4.

The impact of Brexit on the Northern Ireland Higher-Education sector

People

The UK's withdrawal from the EU represents a very real threat to the functioning of a vibrant HE sector in Northern Ireland. Research and innovation are global endeavours, promoted by the cross-fertilisation of ideas through the international mobility of academics. The prospect of a 'hard border' post-Brexit has brought into sharp relief the extent of the value placed by the academic community upon the network of academic and research collaborations, north and south, east and west, across the island of Ireland and the UK. Any re-establishment of a 'hard border' is likely to severely disrupt staff/student flows to the detriment of the international standing of the HE sector in Northern Ireland. The research ecosystem in Northern Ireland is dependent on EU staff and the unimpeded movement of people, research materials and artefacts and instruments across the border. It is currently estimated that 15,000 people⁵ commute over and back across the border every day, while EU nationals (excluding UK nationals) make up 24 per cent of the combined staff and 33 per cent of the academic staff of Queen's University Belfast (QUB) and Ulster University (UU).⁶ A visualisation of these cross-border flows (see Appendix 2) demonstrates a pattern of commuters working and studying in HE and FE institutions in Ireland and Northern Ireland and shows the areas most likely to be affected by cross-border mobility restrictions.

The market for international academic talent is globally competitive and many of these EU world-class researchers make an invaluable contribution to the Northern Ireland research base and society. The continued uncertainty over the rights and legal status of EU citizens living in Northern Ireland, coupled with the potential for disruption to the seamless transition of talent and ideas across national borders, is likely to have a detrimental effect on the ability of the Northern Ireland HE sector to attract and retain world-leading researchers. Any decline in Northern Ireland's ability to recruit the most talented academics and researchers from across the EU and the rest of the world will have significant detrimental consequences for training future graduates in key subjects, thereby limiting the possibilities of boosting productivity and economic growth and attracting greater FDI.

Following Brexit, Northern Ireland universities will be free to amend fee levels for incoming EU students to levels comparable with those paid by other international students, which, in theory, could result in a significant financial windfall. Alternatively, this could result in significant losses, due to a declining take-up of places by EU students as a result of higher fee levels. The Northern Ireland student body is already very homogenous—6 per cent of student enrolments in QUB and UU in 2016 were from the EU (excluding UK nationals)—and this flow could face further disruption if overseas students are also required to comply with new bureaucratic immigration requirements.⁷ Student exchanges under the *ERASMUS* programme also play an important role in promoting greater heterogeneity with the NI HE sector, facilitating 2,402 incoming students over the past five years, resulting in a combined income to QUB and UU of £6.7 million.⁸ Withdrawal from this programme is likely to result in fewer inward and outward exchanges from an already low base.

Research collaborations

The growth of innovative, collaborative and interdisciplinary north-south, east-west and international academic collaborations, nurtured by EU research funding programmes, has played a critical role in promoting Northern Ireland's research base. Ireland is Northern Ireland's most important research partner, with cross-border collaborations accounting for a significant proportion of competitive research funding won from EU sources, and QUB reporting a total of £31.6 million in research collaborations with Irish partners over the past five years. Between 2014 and 2016, 63 per cent of successful Northern Ireland Horizon 2020 applications involved a partner from Ireland, with a total combined value of £33.3 million. The financial benefits aside, participation in major EU research partnerships has had a dramatic effect in raising standards (as evidenced by the number of European partners cited in impact case studies in the most recent Research Excellence Framework) by providing a framework underpinned by talent and excellence while at the same time benchmarking Northern Ireland researchers against their international counterparts.⁹

⁵ Central Statistics Office, *Brexit: Ireland and the UK in Numbers*, December 2016, www.cso.ie/en/media/csoie/releasespublications/documents/statisticalpublications/Brexit.pdf.

⁶ Figures based on data supplied by Queen's University Belfast and Ulster University.

⁷ RIA, *Sustainability of the Northern Ireland Higher-Education Sector*, p. 6.

⁸ See presentation of RIA Brexit Taskforce Belfast stakeholder consultation forum, Clifton House, 28 June 2017. Data supplied by Queen's University Belfast and Ulster University.

⁹ Technopolis, *Brexit: Research and Innovation: Presentation to HUCBMS Conference*, September 2017.

Although the Northern Ireland Executive had originally set an overall target of obtaining £145 million from Horizon 2020, there is some emerging evidence to suggest that the ongoing uncertainty about the UK's future participation in this programme has led to a decline in the number of joint applications involving UK/Irish partners.

Formal research collaborations aside, the natural alignment of research cultures in both jurisdictions on the island has also created an environment that has fostered an extensive network of informal research relationships, which we are only now beginning to quantify. QUB, for example, recently estimated that over 800 informal but established cross-border research partnerships have developed within the past five years.¹⁰ Again, any restrictions that might impede the movement of people and ideas is likely to have a negative effect on such partnerships.

EU research and structural funding

EU funding is an important resource for programmes designed to address strategic priorities such as targeted business support programmes and the establishment of key infrastructures to promote and nurture the Northern Ireland research base. Income from EU sources accounts for 13 per cent of total research income across all disciplines in Northern Ireland, and while it is reasonable to expect that the hard sciences would dominate this drawdown in absolute terms, the arts and humanities are proportionately more vulnerable, relying on the EU for 23 per cent of their total research budgets. Therefore, any diminution in access to EU funding sources is likely to have a more adverse effect on the arts and the humanities in Northern Ireland than on other disciplines.¹¹

Northern Ireland has benefited greatly from the €1.4 billion European Regional Development Fund (ERDF) budget for research and innovation, with a total drawdown of €113.4 million. Northern Ireland has also been a major recipient of cross-border funding via the PEACE and INTERREG programmes. A recent Technopolis report on *The Role of EU Funding in UK Research and Innovation* suggests that such funding has been a unique catalyst in promoting the development of the Northern Ireland research base through investment in buildings and capital equipment, which has subsequently attracted researchers, leveraged further investment and sparked innovation activities. This 'elevator effect' can be illustrated using several case studies, such as the development of the Nanotechnology and Integrated BioEngineering Centre (NIBEC) at UU. The NIBEC building was supported through an original ERDF investment totalling £6 million, and has since gone on to attract over 90 researchers and leverage an additional £50 million in research funding from EU Framework Programmes, INTERREG, the US-Ireland Research and Development programme, InvestNI and the UK Research Councils. NIBEC has also generated 35 patents and spinout companies valued at £100 million.¹² Equally, the Institute of Electronics, Communications and Information Technology (ECIT), a world-leading centre in secure information technologies, based at QUB and winner of a Queen's Anniversary Prize in 2015, has benefitted from similar ERDF funding and has been a hub of scientific research and knowledge transfer. ECIT currently has researchers from 35 countries based in its facilities adjacent to the Northern Ireland Science Park.

¹⁰ Data supplied by Queen's University Belfast.

¹¹ Technopolis, *Brexit*.

¹² Technopolis, *The Role of EU Funding in UK Research and Innovation: Case Studies*, May 2017, p. 36.

Recommendations

Informed by its discussions and deliberations with various stakeholders, the NI WG suggests a number of recommendations designed to secure the capacity of the Northern Ireland HE sector to attract and retain talent, promote research and development, stimulate economic growth and to protect the peace process. These recommendations are set out in three key priority areas below:

People

- Provide clarity on the rights and residency status of EU and non-EU citizens currently living and working in Northern Ireland.
- Advocate for the maintenance of an open border between Ireland and Northern Ireland to allow for the continued unimpeded cross-border flow of people, goods and services. This could be achieved by Northern Ireland joining the EEA, or through some other arrangement that allows for the continued participation in the EU single market and/or a Customs Union.
- Pursue the continuance of the current fee status and eligibility for access to higher education in Ireland and the UK, as currently enjoyed by UK and Irish students.
- Maintain involvement in Erasmus and successor programmes, and where possible, streamline visa requirements for overseas students and academic staff coming to work and study in Northern Ireland. This includes allowing overseas graduates to remain in Northern Ireland post-graduation in areas of skills shortages.
- Create a bespoke suite of programmes including bilateral funding agreements to support north-south, east-west academic research mobility and partnerships.
- Encourage support for all-island bodies such as the RIA and Universities Ireland to create further opportunities for all-island and UK-Ireland dialogue, interchange and collaboration.

Research and development

- Secure continued Northern Ireland participation in, and influence upon, Horizon 2020 and its successor, Framework Programme 9.
- Maintain access to EU structural funding programmes (ERDF, ESF, PEACE and INTERREG). In the event of such funding no longer being provided through EU/UK structures, it should be provided directly and ring-fenced by the UK government.
- Explore the possibility of developing new bilateral research funding schemes with other countries, such as the expansion of the US-Ireland Research and Development Programme to include the humanities and social sciences.

HE strategy

- Create an enhanced role for Universities Ireland to promote cooperation between Irish and Northern Ireland universities and to develop new north-south, east-west, teaching, research and international marketing collaborations.
- Maintain close collaboration with key European partners to continue the delivery of excellent research in Northern Ireland.
- Seek the continuance of regulatory and standards equivalence with other EU countries, and promote a negotiated outcome that allows for the continued recognition of professional qualifications between the UK and the remaining 27 EU member states.
- Promote increased public investment in research and government initiatives to support innovation and to drive economic growth.

Opportunities, strategies and conclusion

While it is clear that Brexit will pose major and specific challenges for HE and research in Northern Ireland, it is also evident that we stand at a 'once-in-a-generation' reflection point in time, where ambitious action taken now could deliver on a vision of Northern Ireland as an international leader in research, teaching and learning. With foresight on behalf of political leaders and policymakers there are opportunities to contribute to societal wellbeing by building and developing communities, to attract world-class research leaders and greater international student numbers, to promote greater knowledge transfer and to grow the Northern Ireland research base. This will require political will and action at local (Northern Ireland), UK and UK-Ireland levels. There is a real danger that—post-Brexit—individual universities and research funding agencies in the UK and Ireland, while recognising the mutual potential benefits of UK-Ireland collaboration in EU-funded programmes, may not perceive the Northern Ireland universities as being essential to their strategic plans. In such a scenario the universities could find themselves relatively isolated, both within the UK and on the island of Ireland. Such a scenario would be detrimental to Northern Ireland and in contravention of the objectives of the Good Friday Agreement.

Specific actions to avert any such eventuality include:

- The promotion of greater ambition for, and increased flexibility of, the Northern Ireland HE sector within the context of an increasing population on the island of Ireland and evolving skills needs.
- The creation of an 'opportunities dividend' by developing new HE offerings and models of delivery, in conjunction with the FE sector, around border regions, with increased opportunities for distance learning, as pioneered by institutions such as the Open University in Northern Ireland. This could be achieved through the creation of a new Northern Ireland Tertiary Education Council to establish greater coordination, resource distribution and oversight with and between the HE and FE sectors.
- The development of joint north-south research centres, academic and research appointments and joint research studentships, to enhance the profile and international impact of the Northern Ireland universities.
- The development of regional research-enhancement funding by UK Research and Innovation to expand Northern Ireland's research capability.
- The development of all-island research-equivalent trade missions to build new overseas research capacity collaborations.

With foresight on behalf of political leaders and policymakers there are opportunities to contribute to societal wellbeing by building and developing communities, to attract world-class research leaders and greater international student numbers.

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Membership of the RIA Northern Ireland Brexit Working Group

Professor Gerry McKenna, MRIA (WG Chair, RIA Vice-President)

Professor Roger Downer, MRIA (UL)

Professor Eileen Harkin-Jones (UU)

Professor David Livingstone, MRIA (QUB)

Dr Marie Cowan (Director, Geological Survey of Northern Ireland)

Appendix I

List of stakeholders consulted

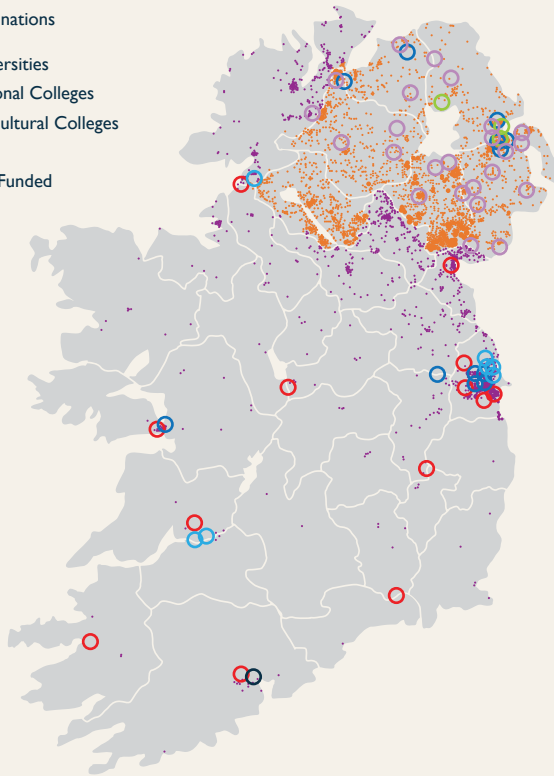
Arts Council for Northern Ireland
Centre for Cross Border Studies
Colleges Northern Ireland
Department for the Economy, Northern Ireland
Department of Education and Skills
Dundalk Institute of Technology
Heads of University Centres of Biomedical Sciences
Higher Education Authority
IBEC
Institute of Civil Engineers
InterTrade Ireland
Invest NI
Irish Universities Nutrition Alliance
Northern Ireland Assembly All Party Group on Science and Technology
Northern Ireland – CBI
Northern Ireland Energy Institution
Northern Ireland Matrix Panel
North-South Ministerial Council
Northern Ireland Museums Council
Queen's University Belfast
Technopolis
TELLUS Project
The British Academy
The Higher Education Policy Institute
The Open University in Northern Ireland
The Royal Society, London
Ulster University
Universities Ireland
US Consul-General, Belfast

Appendix 2

Visualisation of Ireland/Northern Ireland cross-border flows

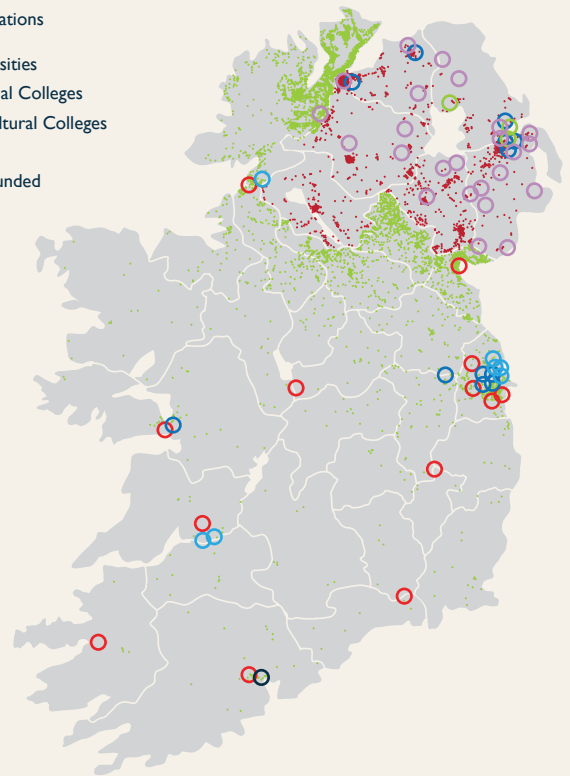
Origin and destination of NI workers in the ROI

- Origin
- Destinations
- Universities
- Regional Colleges
- Agricultural Colleges
- HEI
- Part Funded



Origin and destination of ROI workers in NI

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Source: Census 2011. Commuter maps provided by the Central Statistics Office



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The Royal Irish Academy is Ireland's leading body of experts in the sciences, humanities and social sciences. The RIA Brexit Taskforce was established in March 2017 to explore the implications for research and higher education on the island of Ireland on foot of the UK's exit from the European Union and has a specific all-island focus.

For more information see www.ria.ie/programmes/policy-and-international-relations/ria-brexit-taskforce or email policy@ria.ie.