

Acadamh Ríoga na hÉireann Royal Irish Academy

The role of regions and place in higher education across ' the island of Ireland

> A discussion paper by the Royal Irish Academy Higher Education Futures Taskforce

# PREAMBLE

In an era of rapidly changing and unprecedented global challenges, the landscape of higher education continues to evolve. The benefits of higher education are many, for the individual, for society and for the economy: from advancing knowledge and criticalthinking skills and improving health and life expectancy, to enhancing social cohesion and diversity and increasing the quality of civic life. However, the intensifying climate crisis and extreme environmental disruption; the displacement of millions of people and mass migration; demographic change and geopolitical instability; economic and social inequality and cyber-attacks on democracy, pose unprecedented global challenges requiring holistic and creative responses. Mastering these challenges will also galvanise the modernisation of the landscape of higher education on the island of Ireland, in Europe and globally.

The Royal Irish Academy Higher Education Futures Taskforce was established in September 2020 to debate, identify and present a bold but viable vision for the higher education sector on the island of Ireland in the years ahead. The Taskforce paid special attention to the development of the higher education ecosystem over the longer term and how its development may affect and change the policy and structural framework for higher education on the island of Ireland. How must we reshape higher education to meet changing societal needs and urgent global challenges?

Existing higher education policies date from 2009 (in Northern Ireland) and 2011 (in Ireland) but the landscape has changed substantially since that time. Recent drivers of change include: the development of technological universities; enhanced emphasis on linkages with the further education sector; commitment to greater north–south collaboration in higher education provision and research; the UK's departure from the European Union; new modes of delivery in the higher education sector, accelerated by the impact of the COVID-19 pandemic; and a growing awareness of the value of a strong science–policy dialogue.

The establishment of the new Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) in Ireland offers an exciting opportunity to refresh strategic priorities for higher education and research, and to develop further the immense reservoir of expertise and talent housed and nurtured within higher education on the island. These ambitions are bolstered by the Department for the Economy (Northern Ireland)'s long-term vision of a higher education sector that is vibrant and of international calibre; pursues excellence in teaching and research; plays a pivotal role in the development of a modern, sustainable knowledge-based economy; supports a confident, shared society; and recognises and values diversity.

Informed by recommendations and analysis provided by over 100 organisations, stakeholders, interested parties and individuals in response to an extensive consultation exercise, the Taskforce has produced five papers on the future of higher education in Ireland and Northern Ireland. The titles of the five papers are:

- 1) Higher education on the island of Ireland in 2035: a values-based vision of institutions advancing society, culture and the economy
- 2) The future landscape of higher education
- 3) Regions and place in higher education on the island of Ireland
- 4) Equality, diversity and inclusion in higher education
- 5) Re-imagining research and innovation in higher education in Ireland and Northern Ireland

This paper considers the role of regions and place in higher education in Ireland and Northern Ireland and is based on the work of the Royal Irish Academy Higher Education Futures Taskforce Regions and Place Working Group. Other position papers will address in detail some subjects that are briefly referenced in this paper.

(October 2021)

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# **ABBREVIATIONS**

AHSS	Arts, Humanities and Social Sciences
CAFRE	College of Agriculture, Food and Rural Enterprise
CARL	Cognitive Analytics Research Lab
CIDRA	Centre for Industrial Digitisation Robotics and Automation
DFHERIS	Department of Further and Higher Education, Research, Innovation and Science
ЕТВ	Education and Training Board
FE	Further Education
HE	Higher Education
HEA	Higher Education Authority
HEIs	Higher Education Institutions
HEPI	Higher Education Policy Institute
Hyflex	Hybrid Flexible
MRIA	Member of the Royal Irish Academy
NWRC	North-West Regional College
NWSGP	North-West Strategic Growth Partnership
OECD	Organisation for Economic Co-Operation and Development
SDGs	Sustainable Development Goals
THRIVE	Transformation Healthcare Research Innovation Value Based Ecosystem
TU	Technological University
TUTF	Technological Universities Transformation Fund
TURN	Technological Universities Research Network
UKRI	United Kingdom Research and Innovation

# EXECUTIVE SUMMARY AND KEY RECOMMENDATIONS

Despite notable improvements in the Higher Education (HE) landscape in recent years in both Ireland and Northern Ireland, there is a clear need to reduce the regional disparities that still exist in the distribution and availability of tertiary education. This requires affirmative action by governments. Higher Education Institutions (HEIs) and Further Education Institutions (FEIs) across the regions must be encouraged and incentivised to collaborate more widely and to share resources to reduce the economic and social disadvantages that exist to varying degrees in different regions.

There is a general need to promote the provision of the Arts, Humanities and Social Sciences (AHSS) in the regions and their interaction and synergy with the sciences. There is also a need for enhanced HE and research activities in the north-west and south-east through focused regional planning and oversight distinct from the current Belfast- and Dublin-centric models and, in the former case, without the planning constraints of jurisdictional boundaries. In Northern Ireland (NI), there is a need to distribute resources more evenly geographically. This would be facilitated by the establishment of a body to provide independent oversight of tertiary education in NI and to ensure that it is being appropriately managed, nurtured and funded to ensure its future sustainable development for the benefit of the entire region.

## Planning and oversight

- A co-ordinated and independent planning body supported by funds from PEACE PLUS, the Shared Island Unit and a major joint UK-EU-Ireland-NI initiative involving sustained commitment, including in transport (road, rail, air) and broadband/digitalisation infrastructure, should be established to plan future tertiary education and research provision, including cross-border provision, in the north-west of the island of Ireland. Such a body is necessary to oversee the development of the collaborative institutional structures, governance and funding necessary to redress the effects of historic under-resourcing and achieve the essential upscaling of economic, social and cultural development in the north-west.
- A separate tertiary education oversight body for Northern Ireland should be established to advise the Department for the Economy NI, help define sectoral mission and ensure greater co-ordination, regional distribution and efficiency within the University and Further Education (FE) sectors.

## Funding and missions

- New Technological Universities (TUs) should reflect their regions in terms of vision, role and priorities. They should not necessarily mirror or be constrained by what is already provided by established universities and unnecessary duplication should be avoided. A place-based strategic approach (niche) should be developed by each institution.
- There should be a step change in university landscape funding which requires a long-term approach to planning and resourcing if the potential for the regional impact of institutions is to be successful. Recommendations made by the Technological Universities Research Network (TURN) should be implemented.
- There is a need for TUs and established universities to recognise and value the arts, humanities and social sciences in their portfolio of offerings.
- Cross-border teaching, learning and research should be better supported and funded. Longer-term funding streams north—south and east—west should be made available to ensure that collaborative activities can be allowed sufficient time to develop.
- Plans for growth in student numbers in the north-west should be based on potential shifts in the geographic balance of student numbers and funding within Northern Ireland coupled with offering a portfolio of programmes and student experience such as to attract increased numbers from outside the region.
- The vital role played by adult and community education in promoting rural and community development should be acknowledged and given due priority.
- Staff and student mobility options should be enhanced on both a north–south and east–west basis.

## Agility and flexibility

• HEIs need to plan and implement agile systems for greater flexibility in curriculum design, delivery models and programme content. Recognition of micro-credentials and alternative qualifications should be embraced fully. Existing online university models should be evaluated against established best practice examples (e.g. Hibernia and Open University).

- Online conferences and events allow for greater accessibility in a more environmentally friendly and sustainable manner. Hybrid experiences should, where possible, be offered.
- The increase in the availability of online learning can have a positive impact on lifelong learning for all of society and this should become a core objective of all HEIs.

## **Co-operation and collaboration**

- Joint collaborative programmes between the FE sectors in the border regions of Ireland and Northern Ireland should be actively developed to meet local needs and reduce the disadvantages associated with peripherality.
- A smart specialisation focus should be applied to lead regional HEIs and FEIs working in concert to specialise and provide a more comprehensive offering that reflects the strengths and needs of the region.
- Initiatives involving greater participation by the FE sector and the Open University in HE provision should be encouraged in order to provide more flexible and regionally distributed HE offerings.
- PEACE PLUS should be leveraged to support regional communities to develop university and FE alliances and to engage with civic and local stakeholders with a view to building the expertise for regionally transformative projects.
- HEIs and FEIs should be provided with opportunities and resources to deepen regional focus and the ability to impact societal challenges by working collaboratively with EU and UK partner institutions. The potential of European Universities Alliances to support regional development should be exploited and funded adequately.
- Significant regional funding is provided at EU and UK level; it is important that Ireland and Northern Ireland take steps to articulate and realise a vision for the universities and the regions that they serve and invest appropriately in implementing this vision.

## INTRODUCTION

The role of HEIs in regional development has been a focus of academic study and policy over the last twenty years.<sup>1</sup> More recent national and EU level policy developments provide renewed impetus to examine the role of our universities in regional development both on the island of Ireland and across the EU. The first is the establishment of new regional HEIs in Ireland, the TUs, which has taken place in the wider context of a more considered government focus on regional development and planning and the introduction of the Shared Island Initiative.<sup>2</sup> The second is the UK 'levelling up' agenda which recognises that there has been excessive concentration of economic (including research and HE) resources in some regions relative to others.<sup>3</sup> The third is the EU ambition to create a European Education Area without borders and the subsequent formation of transnational university alliances under the European Universities Initiative. The common threads in both national (Ireland and UK) and EU level policy are reflective of a desire for new ways of collaborating and connecting to stimulate innovation in response to regional, national and global challenges. Underlying the increased emphasis on policies designed to prevent peripheral regions from falling increasingly behind the more economically advantaged centres of power and influence is recognition that regional disparities can ultimately lead to economic inefficiencies and social and political unrest.<sup>4</sup>

International experience has demonstrated that solutions to regional inequality need to be place sensitive with policies that are informed by theory and empirical evidence but that also respond to the structural opportunities, potential and constraints of each place.<sup>5</sup> Focusing on the most prosperous regions is not equity enhancing and may also not be efficiency enhancing as 'it is not clear that economic agglomeration will always lead to sustained high annual average growth and, even if it were the case, that growth, prosperity, and welfare would subsequently spread out from agglomerations to less prosperous peripheries'.<sup>6</sup>

By examining significant and pressing issues that challenge regions and place in higher education, this paper determines the avenues for future direction and opportunities, the role of TUs (examining a number of systemic deficiencies in both Ireland and Northern Ireland and collaboratively), geographical inequalities and the need to address disparities in resources across the island to enhance HE as a whole.

#### The role of the university across the regions

Universities provide unparalleled opportunities for the regions which they serve. They give vital access to learning to the residents of the region and beyond. They attract enterprise, improve public discourse, provide world-class research facilities and researchers and act as a nurturing space for the arts and humanities, including their important interaction with the sciences in dealing with the intellectual and practical challenges of today's world. They provide a site for students, academics and policymakers to come together to discuss and analyse societal questions and to attempt to drive progress for all. The presence of a university in a region automatically elevates it to a region of learning. We must never cease endeavouring to improve our universities and to increase the beneficial impact they have on the regions they serve.

I See Arbo, P. and Benneworth. P. 2006 Understanding the regional contribution of higher education institutions: a literature review. Paris. OECD. Benneworth, P., Pinheiro, R. and Sánchez-Barrioluengo, M. 2016 One size does not fit all! New perspectives on the university in the social knowledge economy. Science and Public Policy. Boucher, G., Conway, C. and Van Der Meer, E. 2003 Tiers of engagement by universities in their region's development. Regional Studies, 37(9), 887–97.

<sup>2</sup> The Government of Ireland's Shared Island initiative involves: 'working with the Northern Ireland Executive and the British Government to address strategic challenges faced on the island of Ireland: further developing the all-island economy, deepening North/South cooperation, and investing in the North-West and border regions; fostering constructive and inclusive dialogue and a comprehensive programme of research to support the building of consensus around a shared future on the island.' See Shared Island Unit https://www.gov.ie/en/publication/de9fc-shared-island/

<sup>3</sup> Forth, T. and Jones, R.A.L. 2020 The missing £4 billion making R&D work for the whole UK. UK Research and Development Roadmap. 2020. https:// media.nesta.org.uk/documents/The\_Missing\_4\_Billion\_Making\_RD\_work\_for\_the\_whole\_UK\_v4.pdf

<sup>4</sup> Rodríguez-Pose, A. 2017 The revenge of the places that don't matter (and what to do about it). Cambridge Journal of Regions, Economy and Society, 11 (1), pp. 189–209 https://eprints.lse.ac.uk/85888/1/Rodriguez-Pose\_Revenge%200f%20Places.pdf

<sup>5</sup> Iammarino, S., Rodríguez-Pose, A., and Storper, M. 2017 Why regional development matters for Europe's economic future. Working papers of the Directorate-General for Regional and Urban Policy, WP 07/2017. Brussels. European Commission.

<sup>6</sup> Tomaney, J., Pike, A., and Rodríguez-Pose, A. 2010 Local and regional development in times of crisis, Environment and Planning A, 42(4): 771–9 and McCann, P. 2016 The UK regional–national economic problem. Geography, globalisation and governance. London. Routledge. Op. cit. Rodríguez-Pose, A. 2017 The revenge of the places that don't matter (and what to do about it). Cambridge Journal of Regions, Economy and Society, 11 (1), pp. 189–209.

As the Taskforce developed this position paper, the spectre of three disruptive forces loomed over the Irish HE sector: the impact of COVID-19, Brexit and the impact of climate change (and loss of biodiversity). These will have a long-lasting effect on the provision of third-level education across the island of Ireland and responsive measures should be kept under continuous review.

## The impact of COVID-19

The COVID-19 pandemic had an immediately transformative impact across the HE sector. The tools and methods necessary for the implementation of online learning were made available across the board to academics and, for the first time, the overwhelming majority of students were being educated via virtual platforms. It was not a perfect system and not all students, particularly those remote from the major urban centres and those from socio-economically disadvantaged backgrounds, had access to the type of infrastructure they needed to succeed. Nonetheless, it has opened up new opportunities for the delivery of learning which should be investigated fully and built upon in the coming years, especially as we move forward from the pandemic.

The widespread transfer to and availability of online learning is interesting, particularly for underserved regions across the island of Ireland. It may mean that the concept of 'place' is no longer static and lectures could potentially be accessed from anywhere in the world. This will bring its own problems as campus attendance and social interaction with peers is beneficial and often necessary for many programmes, but it does open up avenues that had not been properly explored on a widespread basis until now. Blended learning (both face to face and online) provides opportunities for flexible learning and could benefit those already in full-time employment or those living in rural areas. The old cliché 'never waste a good crisis' must be embraced and the integration of enhanced online learning, where it is to the benefit of the student, should be considered, but must be accompanied by the widespread availability of broadband and availability of adequate computing facilities in people's homes.

Across the USA, some universities are adopting a Hybrid Flexible (Hyflex) model where students can choose to study on campus and in person for all sessions or access all classes and materials online during or after class sessions or a mixture of both in person and online. Such a model, or something similar, if found to be productive, could provide an alternative for students living in areas without a HE or FE institution in close proximity to them.<sup>7</sup>

#### Brexit

Brexit has been a disruptive factor in the Irish HE system, particularly north of the border. Steps are being taken within the HE sector to mitigate any negative impacts and all stakeholders recognise the importance of continued collaboration amongst our HEIs across the island and between Ireland and the UK. The impact of Brexit will continue to be felt across the island of Ireland in the years ahead and Ireland must continuously develop new ways of collaborating with the UK now that the UK has left the EU. The Royal Irish Academy (RIA), working in partnership with sister academies in Britain and Ireland as part of the 7-Academies Group, has an important role to play in nurturing and facilitating this interaction.<sup>8</sup> Equally, the establishment of the Celtic Academies Alliance (RIA, Royal Society of Edinburgh and Learned Society of Wales) has played a significant role in facilitating the forging of new relations and collaborations between Ireland, Northern Ireland, Wales and Scotland in a post-Brexit environment.<sup>9</sup> Knowledge, learning and research must never be restricted by borders, and research and learning opportunities, particularly between the north and the south of the island of Ireland, must be nurtured and protected.

The potential negative impact of Brexit on border areas in Ireland and Northern Ireland is of major significance. Focused efforts should be established in order to lessen this impact via tertiary education and research through support for collaborative HE and FE programmes involving targeted inputs from institutions on both sides of the land border. This should be a priority for PEACE PLUS and Shared Island Initiative funding.

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<sup>7</sup> Maloney, E.J. and Kim, J. 2020 Fall scenario #13:A HyFlex Model. The challenge of flexibility https://www.insidehighered.com/blogs/learning-innovation/fall-scenario-13-hyflex-model

<sup>8</sup> Research and innovation: after the EU referendum

https://royalsociety.org/-/media/policy/Publications/2016/19-07-16-eu-referendum-statement.pdf

<sup>9</sup> Celtic Academies Alliance launched to pool expertise. Critical time as the higher education and research sectors deal with challenges of Covid-19 and Brexit https://www.scienceinparliament.org.uk/celtic-academies-alliance-launched-to-pool-expertise/

## **Climate change**

Universities and other tertiary education providers will play an essential role in combating the environmental and societal consequences of climate change and promoting sustainable development. There are four obvious challenges which the tertiary education sector should address proactively:<sup>10</sup>

- 1. How universities and colleges might ensure that their own institutional ecological footprint is regenerative of rather than harmful to the planet;
- 2. How universities and colleges might act as anchor institutions within their local and national communities to create economic, ecological and social resilience;
- 3. How universities and colleges can begin to create the knowledge cultures that can help researchers, students and society to deal with the complexity of sustainability challenges; and
- 4. How universities and colleges can support their students to develop a new awareness of their responsibilities and capacities for hope in challenging times.

Addressing these questions will require institution-wide approaches and ownership as core institutional objectives.

# **TECHNOLOGICAL UNIVERSITIES**

The National Strategy for Higher Education to 2030 (Hunt Report) in Ireland provided for the creation of a new form of HEI, the Technological University. It declared that the Institute of Technology sector should commence a process of evolution and consolidation and that amalgamated institutions reaching the appropriate scale and capacity could potentially be redesignated as TUs. The Technological Universities Act 2018 established the process for the designation of TUs and the following progress has been made:

- The first TU established was Technological University Dublin (merger of Dublin Institute of Technology, Institute of Technology Blanchardstown).
- The Munster Technological University was established in January 2021 (merger of Cork Institute of Technology and Institute of Technology Tralee).
- The Technological University of the Shannon (TUS): Midlands Midwest was established on 1 October 2021.
- The Connacht-Ulster alliance has received approval for its establishment in early 2022. The new TU will involve the amalgamation of Institute of Technology Sligo (IT Sligo), Galway-Mayo Institute of Technology (GMIT) and Letterkenny Institute of Technology (LYIT).
- An application from Waterford Institute of Technology and Carlow Institute of Technology (Technological University South-East) was submitted in April 2021.
- This leaves Dundalk Institute of Technology (which is pursuing TU criteria/metrics) and the Institute of Art, Design and Technology, Dún Laoghaire as unmerged Institutes of Technology.

The October 2019 Report of the Technological Universities Research Network<sup>11</sup> (TURN Report) sets out a vision and ambition for TUs, emphasising their rootedness in their regions and how this can be harnessed to make a distinctive national and international contribution. The foreword to the report notes that 'the Irish Technological University concept is distinctive in its rootedness in regional and local communities and economies, reaching out internationally from those roots and drawing international education and research practices directly back into the regions.' Government priorities as set out in the Programme for Government 2020 and Project Ireland 2040, for example, place TUs at the heart of regional development through skills provision, increased regional educational opportunities, and engagement with regional actors. In particular, the development of increased research capacity in TUs is linked to increased economic and social development, building on their track record of working with and delivering for external research partners. <sup>12</sup>TUs, working individually and as part of regional clusters with the existing universities and other HE providers, could have a transformative effect on the level of regional research and innovation, particularly in the areas outside of the major centres of population.

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<sup>10</sup> Facer, K. 2020 Beyond business as usual: higher education in the era of climate change. Higher Education Policy Institute (HEPI) https://www.hepi.ac.uk/ wp-content/uploads/2020/12/HEPI\_Beyond-business-as-usual\_Higher-education-in-the-era-of-climate-change\_Debate-Paper-24\_FINAL.pdf

II Report of the Technological Universities Research Network (TURN) to the Department of Education and Skills (October 2019)

https://hea.ie/assets/uploads/2019/12/Report-of-the-TU-Research-Network-2019.pdf

<sup>12</sup> For case studies of R&I partnership, see THEA 2020 Impact through Partnership at http://www.thea.ie/impact2020

The Technological Universities Transformation Fund (TUTF), established as a response to the TURN Report, and HE landscape funding are the current primary funding mechanisms to propel the establishment and success of the TUs. The TUTF is a  $\in$ 90 million multi-annual fund to assist the development of the TUs. This funding is welcome and useful but there is a need for a long-term financial instrument to support the establishment and growth of the new institutions. In particular, as acknowledged in the TURN Report, the TUs will require considerable support to assist them with building the expected research capacity. National funding for research in higher education needs to be increased. Government Budget Allocation for Research and Development (GBARD) at 0.93% is almost 50% lower than the EU average. It is essential that government funding for research in all HEIs is increased to at least the EU average. It should be recognised that regional development driven by TUs requires the support and active inclusion of AHSS in order to enable regions to achieve their full economic, social and cultural potential.

#### The south-east

In identifying historic disparities in HE provision across the regions of the island, two stood out as obviously requiring concerted action as part of associated regional strategies for economic, social and cultural development: the south-east and the north-west. Establishing a TU in the south-east has, for some time, been a central part of government policy and is seen as a key element in the development of the region. This policy aligns with broader Irish government policy for regional development, as reflected in policy documents such as The National Planning Framework, Project 2040,<sup>13</sup> the South-East Action Plan for Jobs and the Action Plan for Rural Development, Realising our Rural Potential.

At the time of writing, an application to establish a TU for the south-east has undergone assessment by an international panel and its report is being considered by the board of the Higher Education Authority (HEA). The overall goal is to build on the respective histories and distinctive strengths of Waterford Institute of Technology and the Institute of Technology Carlow, leveraging the ideas and resources of both, to create a unique and distinctive institution of higher learning of international repute, serving the whole of the greater south-eastern region (over 1.6 million population and 18,000 sq. km), offering wide-ranging opportunities to learners, and collaborating with a broad range of civic, academic and industry partners for improved socio-economic development. The TU has the capacity to transform the fabric of the region and the nation. It is recommended that the new Technological University of the South-East should also seek to assimilate at an early opportunity, Carlow College St Patrick's, with its considerable strengths in the arts and social sciences, including valuable overseas exchange programmes.

#### The north-west

In the range of submissions and discussions relating to 'Region and Place', the north-west has been defined variously as encompassing Donegal and L/Derry, Coleraine and L/Derry and a north-west region spanning Galway, Sligo, Letterkenny, L/ Derry and Coleraine including their respective hinterlands. The Taskforce believes that there is considerable merit in accepting the wider and more inclusive definition of the region in order to achieve the scale necessary for focused regional planning devoid of unnecessary jurisdictional, institutional or campus competition and insularity. Irrespective of how it is defined, there is general acceptance that the north-west region of the island of Ireland has been disadvantaged in both jurisdictions due to inevitable limitations imposed by a land border and its peripherality from the major centres of political and economic power and focus, namely Belfast and Dublin. The relative lack of investment is evident in limited transport systems (road, rail and air) and in inadequate broadband and other communication facilities. It is reflected in the EC Regional Innovation Scoreboard 2021 which assesses the north and west regions of Ireland as moderate innovators while other regions on the island are strong.<sup>14</sup> It is also true of HE provision. In Northern Ireland the long-standing dispute over the siting of the New University of Ulster in Coleraine rather than L/Derry has tended to obscure the fact that HE investment has been concentrated in Belfast with over 80% of all HE places and associated infrastructural capital spending based there.<sup>15</sup>

<sup>13</sup> See Project Ireland 2040 https://www.gov.ie/en/campaigns/09022006-project-ireland-2040/

<sup>14</sup> European Commission. Regional innovation scoreboard https://ec.europa.eu/growth/industry/policy/innovation/regional\_en

<sup>15</sup> See Briefing on Northern Ireland budgetary outlook 2018–2020 https://www.ria.ie/sites/default/files/ria\_ni\_budget\_2018-20\_final.pdf and Royal Irish Academy Advice Paper on the sustainability of the Northern Ireland higher education sector

<sup>16</sup> Centre for Cross Border Studies. The Cross-border further education and higher education cluster for the north-west city region, 2020 https:// crossborder.ie/site2015/wp-content/uploads/2020/08/Cross-border-Further-Education-and-Higher-Education-Cluster-for-the-North-West-City-Region18113.pdf

There have been important examples of regional cross-border co-operation in the north-west. The Further Education and Higher Education Cluster for the North-West City Region is particularly noteworthy. <sup>16</sup>The Cluster comprises Ulster University (UU), Letterkenny Institute of Technology (LYIT), North-West Regional College (NWRC), and Donegal Education and Training Board (ETB). Funding for this initiative in 2019 and 2020 was secured through the Irish HEA, and specifically through a funding stream to support the restructuring of the HE landscape. The North-West Strategic Growth Partnership (NWSGP), led by Derry City and Strabane District Council and Donegal County Council, was instrumental in the launch of this partnership in February 2018. NWSGP is a unique interjurisdictional structure, endorsed by both governments through the North South Ministerial Council. Sligo IT and the Coleraine campus of Ulster University have established innovative partnerships in biomedical sciences and online learning and have complementary strengths in environmental science and coastal studies.

The Derry & Strabane City Region City Deal<sup>17</sup>, led by Derry City and Strabane District Council, and bolstered by further investment through the Inclusive Future Fund will see circa £250 million invested across the City Region. This will enable the delivery of a transformative integrated economic and social regeneration programme of investment for the north-west, with the Graduate Entry Level Medical School, Cognitive Analytics Research Lab (CARL), Centre for Industrial Digitisation Robotics and Automation (CIDRA) and Transformation Healthcare Research Innovation Value Based Ecosystem (THRIVE) innovation centres, driving the expansion of the Ulster University's Magee campus. The Medical School will help meet the region's need for increased medical student places to address the wider issue of a shortage of doctors. This will enhance Northern Ireland's capacity to train and deliver medical professionals to support the health services in the north-west and beyond.

The Ulster University's Coleraine campus, which has experienced the loss of a number of popular programmes in recent years, retains major strengths in biomedical sciences, nutrition, vision science, pharmacology, environmental science and coastal studies. The Causeway Coast and Glens Borough Council has prioritised expenditure of £62.5 million of its £72 million Growth Deal on an Enterprise Zone Digital Innovation Hub, a School of Veterinary Medicine at Coleraine and a Centre for Drug Discovery and Pharmaceutical Innovation.<sup>18</sup> This is a strategically appropriate use of the funds given the Coleraine campus's teaching and research strengths and substantial available land holdings. A School of Veterinary Medicine would fill a much-needed gap in provision of places and supply of veterinarians with the only other school on the island of Ireland for veterinary based at UCD.

The Connacht-Ulster Alliance TU will bring together around 20,000 students across eight campuses in Galway, Mayo, Sligo, Leitrim and Donegal. The TU aims to be a leader in the provision of access to HE by offering programmes from pre-degree to doctoral level on campus, online or as remote learning. As a TU, it will deepen collaborative partnerships with FEIs, HEIs and organisations in the public and private sectors. The new distinctive TU will act in a coherent manner supporting the needs of enterprises, especially small and medium-sized enterprises, across the region through collaborative research and enabling technology transfer to support economic and social prosperity. It will provide research-informed teaching and access to emerging technologies for all learners.

As one of Ireland's leading research universities with a long history of outreach and support for economic and cultural developments in the north-west, NUI Galway has an important role to play in the region's future development. NUIG is committed to the principle of creating regional clusters of HEIs that can enable the region to prosper and establish its unique niche based on regional needs, opportunities and its national and international strengths. HEA enrolment statistics from 2014/15 and 2018/19 consistently demonstrate that NUIG has significant numbers of students from the north-west.<sup>19</sup> It has several regional campuses across the north-west and is a member of the West, North-West HE Regional Cluster:

<sup>17</sup> City deal and inclusive future fund. Delivering inclusive growth for the Derry-Londonderry & Strabane City region https://www.derrystrabane.com/ citydeal

<sup>18</sup> Causeway Coast and Glens Borough Council https://www.causewaycoastandglens.gov.uk/uploads/general/210420\_LD\_Agenda\_Item\_6\_-\_Growth\_ Deal\_(including\_appendices).pdf

<sup>19</sup> Higher Education Authority ROI Enrolments 2014/15–2018/19 | Statistics | Higher Education Authority (hea.ie)

While the regionally focused developments outlined above are commendable, they have been driven largely by local government and regional stakeholders. The impression gained through inputs from such stakeholders is that the priority afforded to the region from central governments in both jurisdictions has been sporadic and reactive, driven by local political pressures rather than the result of coherent strategic planning. This is particularly true of Northern Ireland where HE investment and development in Belfast appears to have been given precedence over developments at either of Ulster University's north-west campuses.

It is concluded that without a cross-border planning model based on all of the institutions and campuses of FE and HE provision in the north-west region, and whose primary focus is its enhancement based on needs and opportunities independent of the priorities of the capital cities in both jurisdictions, the north-west cannot attain its full potential in a sustainable way. This accords with a case study example outlined in a recent statement by the Secretary of State for Northern Ireland citing the potential of a cross-border university to address historic under-investment in the north-west region in accordance with the UK government's 'levelling up' agenda.<sup>20</sup> The Taskforce supports these objectives and believes that ultimately the strategic development of the region based on coherent planning may best be achieved by cross-border institutional structures. The Taskforce held a roundtable involving international experts to outline and discuss how such institutions have developed successfully elsewhere<sup>21</sup>. However, any cross-border institution or formal institutional alliances should emerge from, and be driven by, the identification of regional needs and opportunities rather than as 'headline' solutions devoid of comprehensive analysis and articulation.

In the short term, it is concluded that an independent advisory planning body supported by funds from PEACE PLUS, the Shared Island Unit and a major joint UK-EU-Ireland-NI initiative involving sustained commitment, including in transport (road, rail and broadband/digitalisation) infrastructure would be the most appropriate way of developing the collaboration, synergy and institutional structures that are necessary to achieve a step change in the region's prospects. Such an initiative would drive the economic, social and cultural development of the north-west of the island, underpinning a north-west economic corridor with unique strengths and opportunities. It would also demonstrate that, notwithstanding the difficulties that have emerged over Brexit, the UK, EU, Ireland and NI remain committed to continued peace and prosperity across the island of Ireland, and to collaborative and synergistic links between Ireland, the UK and Europe.

# NORTHERN IRELAND SPECIFIC ISSUES

The Taskforce has identified a number of issues that are specific to Northern Ireland and which it believes require attention. These are: widening participation and the net outward migration of HE students; opportunities for greater HE and FE collaboration; and the anomalous situation of Northern Ireland being the only region in these islands which is devoid of any independent oversight of its tertiary education provision.

## HE funding and student numbers

The Northern Ireland HE system experienced a period of underfunding relative to that pertaining to other parts of the UK during the middle of the last decade, particularly 2014/15. Any HE funding shortfall inevitably undermines the planned economic development of Northern Ireland. The background to this situation was the decision by the UK government in 2011 to raise the upper threshold for tuition fees for full-time undergraduates studying at English universities to £9,000 per year from 2012/13. This funding model was also adopted in Wales. The Scottish government decided to abolish fees for Scottish domiciled students. This policy included increased direct funding for Scottish HEIs such as to maintain parity with England coupled with a cap on local student numbers. At that time the NI Executive decided to freeze tuition fees for local students studying in Northern Ireland, subject only to inflationary uplifts, and that commitment was written into the 'Programme for Government'. The disparity between the two funding regimes grew as the level of public funding made available for higher education decreased year-on-year due to overall pressures on public expenditure in Northern Ireland.

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<sup>20</sup> Addressing the legacy of Northern Ireland's past. Presented to Parliament by the Secretary of State for Northern Ireland https://assets.publishing.service. gov.uk/government/uploads/system/uploads/attachment\_data/file/1002140/CP\_498\_Addressing\_the\_Legacy\_of\_Northern\_Ireland\_s\_Past.pdf

<sup>21</sup> Royal Irish Academy. Notes of roundtable discussion on international examples of cross border higher education institutions, June 2021.

The local universities did, however, benefit from additional 'above parity' support including an additional capital grant not received in other UK regions. Such additional non-competitive funding streams render 'like for like' comparisons difficult. From 2017/18 onwards there has been a significant improvement in government funding to the local NI universities. It would appear that when all public funding support for NI universities, including non-competitive funding, is taken into account, the current comparative funding gap between NI- and Great Britain-based universities is of limited significance.<sup>22</sup> It should however be noted that the funding difficulties of the NI universities.<sup>23</sup>They also resulted in significant loss of course provision in several areas as well as reductions in places and subject choice across a range of disciplines.

Educational migration is a common occurrence throughout the UK and Ireland. However, Northern Ireland is an outlier amongst other UK nations as it has a combination of high levels of students leaving to study elsewhere and a low number of incoming students. Over 17,000 students were studying outside of Northern Ireland while only 3,470 students chose to come to study in Northern Ireland in 2018/19. Once students leave for study outside of Northern Ireland, they are at risk of not returning – nearly two-thirds do not return within six months of graduation. Contributors to outward migration are the fact that the supply of university places is limited by the Maximum Student Numbers (MaSN) cap, which within the UK applies only to Northern Ireland, and the cuts in HE funding. It is estimated that for every 100 home applicants there were only 60 available places in 2018/2019, compared to 90 places in Scotland, 120 in England and 130 in Wales.<sup>24</sup>

Figures obtained by the Department for the Economy NI (the department responsible for further and higher education) from UCAS show that, each year, the number of Northern Ireland students who applied only to, and were accepted at, institutions in other parts of the UK ('determined leavers') is much higher than the number of Northern Ireland students who have a firm NI choice but who ultimately accept an offer in Great Britain ('reluctant leavers'). These figures would suggest that there are other significant factors motivating students to leave Northern Ireland beyond the availability of places and these may also be reflected in the limited likelihood of them returning after graduation. Such factors will include the desire for enriched opportunities and experiences beyond their local areas, while others may be influenced by negative perceptions about the local economy and the prevalence of sectarian divisions. Irrespective of its causes, it is clear that Northern Ireland, uniquely among the countries of the UK, experiences a net annual 'brain drain' which may limit its capacity for future economic, social and cultural development and the attainment of innovation and economic goals set out in the IOX Economy economic vision.<sup>25</sup>

#### Widening participation/social inclusion

The reduction in student numbers as a result of HE funding difficulties experienced in recent years by the two major Northern Ireland universities, taken together with the pre-existing limitations imposed by the MaSN cap, may also have had the unintended consequence of impacting negatively on widening participation/social inclusion. As has been demonstrated elsewhere, social participation in HE only widens sustainably when HE places can grow<sup>26</sup> The increased competition for places in Northern Ireland has inevitably raised entry qualification tariffs in the local universities. A level and other pre-university entry qualification grades are correlated with socio-economic status, In the absence of further affirmative action measures, it seems likely that 'reluctant leavers' from the lower social groups are being forced disproportionately to leave Northern Ireland to obtain HE (paying higher fees and accumulating higher student debt) or having to bypass the opportunity for higher education.

<sup>22</sup> Financial information supplied by the Department for the Economy Northern Ireland.

<sup>23</sup> Royal Irish Academy. Briefing on Northern Ireland budgetary outlook 2018–2020 https://www.ria.ie/sites/default/files/ria\_ni\_budget\_2018-20\_final.pdf 24 Pivotal: retaining and regaining talent https://www.pivotalppf.org/cmsfiles//Retaining-and-Regaining-talent-report-V1.pdf

<sup>25</sup> A 10x economy. Northern Ireland's decade of innovation. Department for the Economy https://www.economy-ni.gov.uk/sites/default/files/publications/ economy/10x-economy-ni-decade-innovation.pdf

<sup>26</sup> Seminar series on mass higher education in UK and international contexts. Briefing paper: How to think about widening participation in UK higher education. Discussion paper by David Watson, Institute of Education, University of London https://www.crll.org.uk/media/crll/content/publications/ massheseminar/Seminar%203%20David%20Watson%20Briefing%20Paper.pdf

The limited attractiveness of Northern Ireland as a destination for students from other regions of the UK and from the EU and elsewhere has the effect of making the local NI universities relatively less heterogeneous in their student populations. Northern Ireland universities currently attract 5% of their student population from Britain and 4.9% from Ireland and other EU countries. Their intake of non-EU students is 5%, substantially less than that of Scottish universities (13%) and English and Welsh universities (each 14%).<sup>27</sup>

While England is projected, based on demographics and participation trends, to experience a substantial increase in demand for university places up to 2035, the projections for Northern Ireland and Scotland are less optimistic<sup>28</sup>. It has been projected that both countries would be in a position to see increases in participation without necessarily needing to fund additional places in higher education. This means that plans for growth in student numbers in the north-west should be based on potential shifts in the geographic balance of student numbers and funding within Northern Ireland coupled with offering a portfolio of programmes and student experience such as to attract increased numbers from outside the region.

## **HE/FE** collaboration

Inputs to the Taskforce from business sector representatives indicated that HE provision, including the development of new programmes in Northern Ireland and Ireland, was predicated unduly on the provision of capital resources, in particular dedicated buildings, with insufficient sharing of resources, including with the FE sector. Approximately 20% of all HE students in Northern Ireland are currently based within the FE sector, studying programmes approved by the universities. This provision is provided at lower cost, but acceptable quality standards endorsed by the UK's HE quality watchdog, the QAA. By virtue of the dispersed nature of the six FE colleges and the College of Agriculture, Food and Rural Enterprise (CAFRE), this provision is more geographically widespread than that afforded by university and HE college campuses. It is recommended that initiatives involving greater participation by the FE sector and the Open University in HE provision should be encouraged in order to provide more flexible and regionally distributed HE offerings. Data from the Office for Students (England) Longitudinal Employment Outcomes survey for 2019–20 indicate that FE colleges recruit higher proportions of HE students from disadvantaged neighbourhoods and more students from their local area – and their graduates are more likely to stay there for work<sup>29</sup> These institutions will also be important in delivering continuing education and re-skilling to meet the changing needs of the evolving economy. They also have the capacity, in alliance with providers in the border counties of Ireland, to develop shared and collaborative cross-border programmes to reduce the economic, social and cultural disadvantage associated with border areas.

Northern Ireland's future development priorities include the implementation of its innovation strategy leading to the planned rebalancing of its economy through a growing and knowledge-based private sector fuelled by indigenous enterprises and Foreign Direct Investment. This has been set out clearly in the IOX Economy – Economic Vision<sup>30</sup>, which identifies priority clusters where Northern Ireland business, government and academia, working together, can excel and be globally competitive. The supply of skilled human capital provided through its higher and further education sectors will be crucial to this endeavour. While accepting that Northern Ireland's HEIs are no longer underfunded significantly relative to their Great Britain counterparts, there would be merit in developing a more transparent funding model to allow meaningful comparisons with UK institutions and between institutions and campuses in Northern Ireland.

## Tertiary education oversight

Northern Ireland is unique within the regions of the UK and Ireland in not having an independent oversight body for further and higher education. This anomaly has been highlighted on a number of occasions and the Taskforce believes its absence has contributed to the persistence of the NI specific problems referred to above.

<sup>27</sup> Royal Irish Academy advice paper on the sustainability of the Northern Ireland higher education sector https://www.ria.ie/sites/default/files/ria\_advice\_ no10\_2\_21.pdf

<sup>28</sup> Hewitt, . Demand for higher education to 2035 https://www.hepi.ac.uk/wp-content/uploads/2020/10/Demand-for-Higher-Education-to-2035\_HEPI-Report-134\_FINALpdf

<sup>29</sup> Millward, C. What's the relationship between where you come from, where you go to university and your opportunities for a well-paid job? https:// www.officeforstudents.org.uk/news-blog-and-events/blog/what-s-the-relationship-between-where-you-come-from-where-you-go-to-university-andyour-opportunities-for-a-well-paid-graduate-job/

<sup>30</sup> Millward, C. What's the relationship between where you come from, where you go to university and your opportunities for a well-paid job? https://A 10x economy. Northern Ireland's decade of innovation. Department for the Economy https://www.economy-ni.gov.uk/sites/default/files/publications/ economy/10x-economy-ni-decade-innovation.pdf

The Taskforce recommends the creation of a NI tertiary education oversight body to advise government, help define sectoral mission and ensure greater co-ordination and regional distribution within the university and FE sectors. Given the critical nature of tertiary education in determining the economic, social and cultural welfare of NI, the establishment of such a body warrants high priority within the NI Executive's agenda. While recognising the significance of the proposal to establish a NI Skills Council, it is not believed that such a council, in the absence of a dedicated tertiary education oversight body, would have the specificity or focus to establish greater co-ordination, regional distribution, resource distribution and oversight within and between the HE and FE sectors across all of Northern Ireland. Such an oversight body could also provide informed input to an all-island co-ordination of tertiary education and research and help ensure that Northern Ireland's tertiary education system is appropriately placed to deliver the economic, social and cultural needs of the region to optimal effect.

## HIGHER EDUCATION AS A REGIONAL ENABLER

There is no doubt that harnessing the power of higher education across the various regions could be hugely instrumental in promoting economic and societal progress. The Taskforce has considered several potential areas in which progress could be achieved.

#### Smart specialisation and regional innovation

The European Committee of the Regions and the European Commission's Joint Research Centre have underlined the role of regional smart Specialisation Strategies as a cornerstone of EU policies, from the post-pandemic recovery plans to the delivery of the European Green Deal, digital transition and the Sustainable Development Goals (SDGs). Smart Specialisation is an essential part of the EU's cohesion policy, it is a place-based approach characterised by the identification of the strengths and assets of each region and on an Entrepreneurial Discovery Process with wide stakeholder involvement.

Across Ireland, there is potential for applying a smart specialisation focus to lead regional HEIs to specialise and provide a more comprehensive offering that reflects the strengths and needs of the region. This also includes potential to expand the specific missions of HEIs so that they expand beyond teaching and research and instead adopt a wider mission of public good which would incorporate regional development, including niche economic development, reduction in social inequality and support for SDGs.

#### Border regions beyond the north-west

Although the Taskforce particularly identified a need to address HE under-provision in the north-west as a matter of urgency, there are of course further opportunities that must be explored and harnessed across all other regions of the island. The mutual recognition of qualifications, micro-credentials and institutional entry tariffs across the island of Ireland would enable greater collaboration between institutions in Ireland and Northern Ireland situated in the border regions. There are excellent examples of cross-border collaboration at FE level. These should be built upon in order to reduce the disadvantage that the peripherality of border regions inevitably entails. Cross-border collaboration in FE should be supported by PEACE PLUS and the governments of Northern Ireland and Ireland for the mutual benefit of both jurisdictions.

## The PEACE PLUS programme

The key aims of the PEACE PLUS programme are to contribute to a more peaceful, prosperous and stable society in Northern Ireland and the border counties of Ireland, and to leave an enduring legacy by funding activities that promote peace and reconciliation and contribute to cross-border economic and territorial development. The programme's strategic objective is to build on the opportunities and address the needs arising from the peace process, with a two-fold aim: to boost economic growth and stimulate social and economic regeneration, and to promote social inclusion, particularly for those at the margins of economic and social life. The programme will strive to address long-standing social and economic challenges that have affected, and continue to affect, communities in rural border areas, as well as continuing challenges that exist in urban settings. It will also recognise the devastating effects of the COVID-19 pandemic on society and the impact associated with the UK's exit from the EU.

The PEACE PLUS programme has been drafted to allow for support for activities that will address the challenges and opportunities in Northern Ireland and the border area as they arise over the coming years. Specifically, there will be investment under the economic regeneration theme to include support for business and skills development; and under the partnership and collaboration theme, there will be support for strategic planning and cementing cross-border collaboration at various levels between government (local and national), communities and citizens.

The programme area includes Northern Ireland and the border counties of Ireland, namely, Cavan, Donegal, Leitrim, Louth, Monaghan and Sligo. This is the core programme area, but there is also flexibility to include partners or activity outside the core area if appropriate. Cross-border collaboration is not strictly limited to the administrative borders of the programme but has a flexible geography, depending on the topic concerned. This is called a functional area and allows for organisations and institutions that are not based in the core programme area to get involved in projects by linking with partners in the core area.

The potential for relevant collaborations across the island provides an opportunity for increased partnerships and linkages among HEIs and researchers and must be fully explored. An engaged research approach that is collaborative, changeoriented, ethical, inclusive and creative should be utilised. It would stimulate interest in and engagement with the programme and would leverage PEACE PLUS for communities, to develop tertiary education alliances and to engage with civic and local stakeholders with a view to building the expertise for transformative projects. An engaged research approach would be flexible, allowing for the involvement of major players or the adoption of new methodologies to support a more outward and forward looking, bottom-up networking approach.

## EUROPEAN UNIVERSITIES INITIATIVE

In November 2017, the European Commission set out a vision for a European Education Area by 2025 'in which learning, studying and doing research would not be hampered by borders'.<sup>31</sup> This includes a role for universities beyond teaching, research and innovation to be able to 'address big societal challenges and become true engines of development for cities and regions and promote civic engagement'.<sup>32</sup> The aim of this initiative is to bring together a new generation of creative Europeans able to co-operate across languages, borders and disciplines to address societal challenges and skills shortages faced in Europe. The European Universities Initiative will be fully rolled out and scaled up under the next Erasmus programme 2021–2027 and, thus, provides further opportunities for Ireland to engage.

Eight Irish HEIs have successfully obtained competitive funding for their participation in seven new European University Alliances. It is strategically important that this significant Irish participation be facilitated with adequate resourcing in order to a play leading role in these alliances. These alliances provide Irish universities with an opportunity to deepen regional focus and the ability to impact societal challenges by working collaboratively with EU partner institutions. Funding is provided at EU level but it is important that Ireland takes steps to realise the potential of this vision for its universities and the regions which they service and invest appropriately in both time and resources. Participation in these alliances must be supported and adequately funded to ensure they secure the maximum benefits possible for the Irish education system.

<sup>31</sup> European Commission. Unlocking the potential of education and training to support the European project https://ec.europa.eu/education/sites/default/ files/factsheet-education-may2018-en.pdf

<sup>32</sup> See European Commission. European universities: a key pillar of the European Education Area http://sepie.es/doc/universidades-europeas/ EuropeanUniversities\_factsheet\_2020.pdf

# CONCLUSION

In reviewing the essential role of higher education and tertiary education in driving future development and wellbeing on the island of Ireland, the Taskforce has been convinced of the central importance of regional strategies and their implementation in underpinning economic, cultural and social development. Such strategies must be based on equity and fairness in the distribution of resources including infrastructure, services and communication facilities and should take due account of the value of place, such as to ensure that each region's character, culture and opportunities are built upon to enable it to develop to its full potential. Policies geared towards this end will ultimately be to the overall benefit of the island of Ireland and help to ensure peaceful and prosperous outcomes for its inhabitants.

# **APPENDIX**

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The opinions expressed in this discussion paper are those of the HE Futures Regions and Place subgroup and do not necessarily represent those of the Royal Irish Academy.

# REFERENCES

Addressing the legacy of Northern Ireland's past. Presented to Parliament by the Secretary of State for Northern Ireland https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1002140/CP\_498\_ Addressing\_the\_Legacy\_of\_Northern\_Ireland\_s\_Past.pdf

Arbo, P. and Benneworth. P. 2006 Understanding the regional contribution of higher education institutions: a literature review. Paris. OECD.

A 10x economy. Northern Ireland's decade of innovation. Department for the Economy https://www.economy-ni.gov.uk/ sites/default/files/publications/economy/10x-economy-ni-decade-innovation.pdf

Benneworth, P., Pinheiro, R. and Sánchez-Barrioluengo, M. 2016 One size does not fit all! New perspectives on the university in the social knowledge economy. Science and Public Policy 43(6), 731–5

Boucher, G., Conway, C. and Van Der Meer, E. 2003 Tiers of engagement by universities in their region's development. *Regional Studies* 37(9), 887–97.

Briefing on Northern Ireland budgetary outlook 2018–2020 https://www.ria.ie/sites/default/files/ria\_ni\_budget\_2018-20\_ final.pdf

Celtic Academies Alliance launched to pool expertise. Critical time as the higher education and research sectors deal with challenges of Covid-19 and Brexit

https://www.scienceinparliament.org.uk/celtic-academies-alliance-launched-to-pool-expertise/

Centre for Cross Border Studies. 2020 The Cross-border further education and higher education cluster for the northwest city regionhttps://crossborder.ie/site2015/wp-content/uploads/2020/08/Cross-border-Further-Education-and-Higher-Education-Cluster-for-the-North-West-City-Region18113.pdf

City deal and inclusive future fund. Delivering inclusive growth for the Derry-Londonderry & Strabane City region https:// www.derrystrabane.com/citydeal

European Commission. European universities: a key pillar of the European Education Area. http://sepie.es/doc/universidadeseuropeas/EuropeanUniversities\_factsheet\_2020.pdf

European Commission. Regional innovation scoreboardhttps://ec.europa.eu/growth/industry/policy/innovation/regional\_en

European Commission. Unlocking the potential of education and training to support the European project https://ec.europa.eu/education/sites/default/files/factsheet-education-may2018-en.pdf

Facer, K. 2020 Beyond business as usual: higher education in the era of climate change. Higher Education Policy Institute (HEPI) https://www.hepi.ac.uk/wp-content/uploads/2020/12/HEPI\_Beyond-business-as-usual\_Higher-education-in-the-era-of-climate-change\_Debate-Paper-24\_FINAL.pdf

Forth, T. and Jones, R.A.L. 2020 The missing £4 billion making R&D work for the whole UK https://media.nesta.org.uk/ documents/The\_Missing\_4\_Billion\_Making\_RD\_work\_for\_the\_whole\_UK\_v4.pdf

Hewitt, R. Demand for higher education to 2035 https://www.hepi.ac.uk/wp-content/uploads/2020/10/Demand-for-Higher-Education-to-2035\_HEPI-Report-134\_FINAL.pdf

Higher Education Authority ROI Enrolments 2014/15 – 2018/19 | Statistics | Higher Education Authority (hea.ie)

lammarino, S., Rodríguez-Pose, A., and Storper, M. 2017 Why regional development matters for Europe's economic future. Working papers of the Directorate-General for Regional and Urban Policy, WP 07/2017. Brussels. European Commission.

Maloney, E.J. and Kim, J. 2020 Fall scenario #13: a HyFlex model. The challenge of flexibility https://www.insidehighered.com/blogs/learning-innovation/fall-scenario-13-hyflex-model

Matters for Europe's economic future. Working papers of the Directorate-General for Regional and Urban Policy, WP 07/2017. Brussels. European Commission.

Millward, C.What's the relationship between where you come from, where you go to university and your opportunities for a well-paid job?https://www.officeforstudents.org.uk/news-blog-and-events/blog/what-s-the-relationship-between-where-you-come-from-where-you-go-to-university-and-your-opportunities-for-a-well-paid-graduate-job/

McCann, P. 2016 The UK regional–national economic problem. Geography, globalisation and governance. London. Routledge.

Pivotal: retaining and regaining talent https://www.pivotalppf.org/cmsfiles//Retaining-and-Regaining-talent-report-VI.pdf

Project Ireland 2040 https://www.gov.ie/en/campaigns/09022006-project-ireland-2040/

Report of the Technological Universities Research Network (TURN) to the Department of Education and Skills 2019 https://hea.ie/assets/uploads/2019/12/Report-of-the-TU-Research-Network-2019.pdf

Research and innovation: after the EU referendum https://royalsociety.org/-/media/policy/Publications/2016/19-07-16-eu-referendum-statement.pdf

Rodríguez-Pose, A. 2017 The revenge of the places that don't matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society* 11 (1), pp. 189–209.

Royal Irish Academy. Advice paper on the sustainability of the Northern Ireland higher education sector https://www.ria.ie/ sites/default/files/ria\_advice\_no10\_2\_21.pdf

Royal Irish Academy. Briefing on Northern Ireland budgetary outlook 2018–2020 https://www.ria.ie/sites/default/files/ria\_ni\_budget\_2018-20\_final.pdf

Shared Island Unit https://www.gov.ie/en/publication/de9fc-shared-island/ THEA 2020 Impact through partnership http://www.thea.ie/impact2020

Tomaney, J., Pike, A., and Rodríguez-Pose, A. 2010 Local and regional development in times of crisis, Environment and Planning A, 42(4), 771–9.

UK Research and Development Roadmap 2020

 $https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/896799/UK_Research_and_Development_Roadmap.pdf$ 

Watson, D. 2006 Seminar series on mass higher education in UK and international contexts. Briefing paper: How to think about widening participation in UK higher education. Institute of Education, University of London.



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