



Acadamh Ríoga na hÉireann  
Royal Irish Academy

# The future landscape of higher education

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



## PREAMBLE

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*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 critical-thinking 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:*

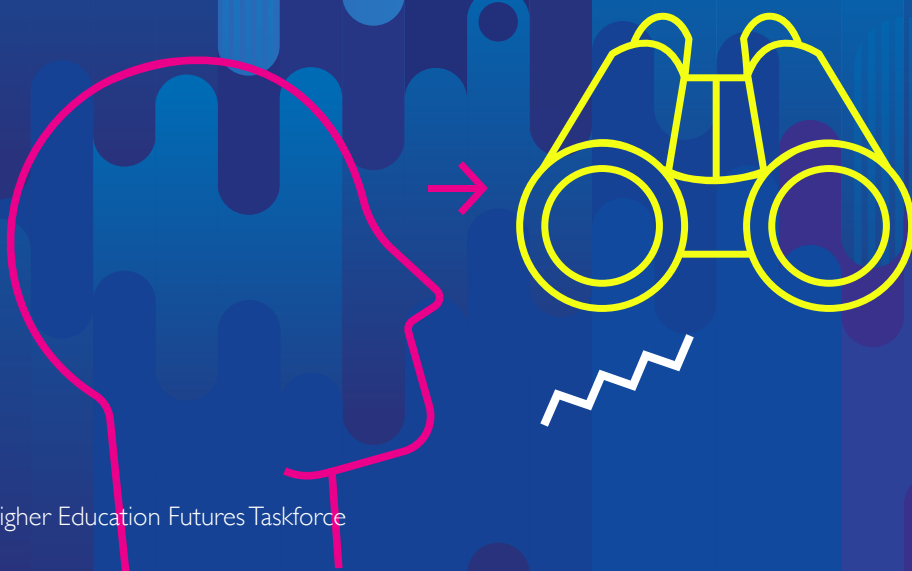
- 1) Higher education on the island of Ireland in 2035: a values-based vision of institutions advancing society, culture and the economy*
- 2) The future landscape of higher education*
- 3) Regions and place in higher education on the island of Ireland*
- 4) Equality, diversity and inclusion in higher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

*This paper considers the future shape of higher education in Ireland, addressing only briefly and where necessary matters considered in detail by others in the series. It begins with an assessment of how global or transnational drivers of change are dramatically reshaping the academy worldwide. It then considers uniquely Irish circumstances, identifying a set of key enablers of an excellent higher education and research system for Ireland in 2035. The Taskforce recognises that the Higher Education Institutions (HEIs) on the island exist in two different jurisdictions, with two different legislative and regulatory frameworks, and different models of system governance and funding. However, our shared geography, culture and history, intertwined economies, bi-directional mobility and partnerships motivate a shared strategic approach. For clarity, this paper addresses post-secondary education institutions such as universities (comprehensive, technological and specialised), institutes of technology and specialised institutes of the arts or advanced studies.*

*(October 2021)*

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## ABBREVIATIONS

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<b>AHSS</b>	Arts, Humanities and Social Sciences
<b>AI</b>	Artificial Intelligence
<b>COIL</b>	Collaborative Online International Education
<b>ECR</b>	Early Career Researcher
<b>EDI</b>	Equality, Diversity and Inclusion
<b>FDI</b>	Foreign Direct Investment
<b>FE</b>	Further Education
<b>FRSE</b>	Fellow of the Royal Society of Edinburgh
<b>HE</b>	Higher Education
<b>HEIs</b>	Higher Education Institutions
<b>OA</b>	Open Access
<b>OECD</b>	Organisation for Economic Co-Operation and Development
<b>PRTLl</b>	Programme for Research in Third-Level Institutions
<b>R&amp;I</b>	Research and Innovation
<b>SDGs</b>	Sustainable Development Goals
<b>STEAM</b>	Science, Technology, Engineering, Arts and Humanities and Mathematics
<b>SPUR</b>	Support Programme for University Research
<b>TU</b>	Technological University
<b>UKRI</b>	United Kingdom Research and Innovation
<b>VET</b>	Vocational Education and Training

## I. INTRODUCTION

After a late start, by European standards, Ireland has developed a strong system of Higher Education Institutions (HEIs) which, for the past half century, has contributed enormously to the social and economic modernisation of the country. Higher Education (HE) in Ireland is a success story: while in the 1950s a mere 5% of school leavers attended a tertiary institution, today about 60% of school leavers participate in HE. Ireland's third-level attainment is among the highest in the EU with over 50% graduating in the age group of 30–34.<sup>1</sup> Gender equality continues to improve, the percentage of mature students and students from lower socio-economic backgrounds has grown and the high number of international students has diversified the sector.

HEIs have enabled a thriving diverse economy, shaped public policy debate, supported societal harmony and the peace dividend. HEIs, in Ireland and Northern Ireland, have shown remarkable resilience with constrained resources, evolving in nature and scale as circumstances demanded.

### The principal purposes of HEIs are to:

- Empower citizens of diverse ages and backgrounds to become lifelong learners, acquiring the values, knowledge, critical-thinking and communication skills they seek or require for personal fulfilment, employment and active, responsible citizenship.
- Create knowledge through research and learning and apply it through innovation, mindful of societal needs and guided by the UN Sustainable Development Goals (SDGs) and the EU Green Deal.
- Advance society as a whole and share expertise with industry, the arts and tourism sectors and external stakeholders to foster an ecologically sustainable, inclusive, diverse, just and economically successful Ireland.

### Drivers of change

HEIs evolve primarily in response to societal challenges, economic drivers and market forces, demographic changes and developments in knowledge; always guided by evolving transnational, national and regional policy priorities. In today's globalised society an analysis of evolutionary challenges to Irish HEIs must commence with global forces and respect international consensus reviews.

The world is going through a period of accelerating challenges, but with the potential to inspire a fundamental and positive transformation of the whole of society, based on sustainability goals, Equality, Diversity and Inclusion (EDI) principles, active citizenship and justice. The climate crisis and global environmental disruption necessitate the re-orientation of the global, including Irish, economy and society towards a just and sustainable future in line with the UN SDGs. Research agendas, curricula and campus operations must align at pace. Demographic changes, occurring globally, will impact Ireland dramatically. Migration from within the EU and Third Countries will increase societal diversity, with new opportunities and challenges in a multicultural and multi-lingual society. Migration will simultaneously drive population growth (the population of Ireland is projected to increase to over 6.7 million by 2050, while the population of the whole island is expected to reach pre-Famine levels – c. 8.5 million). A continually falling birth rate combined with increasing life expectancy, characteristics of a developed country, will result in an ageing society. The nature of learners in Irish HEIs will consequently change. Growing social and economic inequalities globally have created more divided societies in many countries. Widely available, inclusive and easily accessible high quality education is a proven antidote.

Digitalisation and Artificial Intelligence (AI) will transform the workplace and employment opportunities. HEIs must prepare all learners with necessary digital skills and an increased awareness and knowledge of big data and AI. Political extremism and populism are threats to democracy globally, while misinformation through social media has fuelled an anti-science and anti-expert public discourse. Although populist and extremist parties have not enjoyed the same success in Ireland as elsewhere in Europe, Ireland is not immune to such trends. Enhancing critical-thinking skills in the population will be crucial.

<sup>1</sup> Fleming, T., Loxley, A. and Finnegan, F. 2017 *Access and participation in Irish higher education*. London. Palgrave/Macmillan. p 27

Differential levels of funding for education and research are creating an increasingly uneven playing field across Europe. After a decade of contracting revenues, Ireland's HEIs are currently deemed 'institutions in danger' alongside those in Serbia. Sustained and increased state funding is needed to create a HE system fit for the 21st century. Furthermore, in a rapidly changing world the expectations of individual learners are evolving too. Unlike their antecedents, they no longer rely merely on conventional pathways and institutions to improve their prospects. Instead, they expect access to flexible educational opportunities anywhere and anytime, often defining their own individual learning needs and a lifelong timetable to meet them.

Brexit and the Northern Ireland Protocol have fundamentally altered relationships between the islands of Ireland and Great Britain and within the island of Ireland. The higher education and research sectors have a responsibility and capacity to collaborate more in supporting both islands' societies and economies to build a successful, shared new future. European and global geopolitical realignments threaten established international partnerships and co-operation when collaboration is most needed. Research, innovation and education are key bridge-builders and, as Ireland has shown historically, strong drivers of geopolitical influence.

The COVID-19 pandemic has created additional socio-economic challenges, with unprecedented levels of government debt and dramatically rising unemployment. It has fostered new disparities while signalling unexpected capacity for and openness to change. It has re-emphasised the need for a resilient and dynamic research landscape that can respond to global challenges. At the same time, it has also created the conditions for a radical re-appraisal of ways of working, not least in higher education, with greater focus on wellbeing and a better work-life balance.

All of these and other challenges require imaginative HEI responses – reshaping the nature of education, research and innovation, and of the institutions that deliver them.

## 2. THE HEI LANDSCAPE IN 2035: INSTITUTIONAL MISSIONS

Attainment of the UN's SDGs should be at the heart of institutional missions and strategies, with education, research, innovation and civic missions orientated to enable society to adapt.

### 1. Learning and teaching

Future learners in Irish HEIs will be very different: their needs more complex and diverse, and learning itself will need to be transformed. Learners will be diverse in terms of socio-economic background, ethnicity, gender and age. Greater access for currently disadvantaged student cohorts will ensure that participants in higher education mirror the diversity of our society. By providing an environment that mirrors our pluralist society and that is conducive to open and evidence-based debate, HEIs should foster creativity, social inclusion, fairness, entrepreneurial spirit and critical-thinking skills.

With increasing life expectancy, HEIs must also accommodate the particular needs of many older learners reskilling for multiple lifetime career changes or to satisfy personal development goals. Meeting new demands of many new categories of students will require flexibility in course delivery and assessment, and new modes of collaboration between institutions. Citizens from different backgrounds will be encouraged to accumulate a bespoke portfolio of 'packages' of accredited learning (micro-credentials) from a range of HEIs, throughout their lifetime.

Learning itself will evolve. Irish academics will need to embrace more flexible, more learner-centred model of learning, honouring students as 'co-creators of knowledge'. Enabling learning 'anywhere, anytime' will depend on a learner-focused delivery mode that is interpersonal, interactive, dynamic and transversal. Adoption of AI, new digital learning platforms and the application of novel learning analytics will facilitate individualised tutoring and learner assessment – the latter being redesigned to be formative: an enabler of learning. This is a challenging but necessary task if HEIs are to meet the demands of a sustainable, fair, diverse and knowledge-based society and economy.

Most traditional disciplines will continue in their own right but increasingly they will provide the foundations for interdisciplinary learning and research. Subject-specific expertise and skillsets are required to resolve complex disciplinary and cross-disciplinary challenges, but innovation thrives at the intersection between disciplines.

HEIs should adopt greater learner and staff mobility between institutions in Ireland to grow sectoral cohesion, and with international HEIs to foster research collaborations as well as intercultural and linguistic competencies. As this must occur in an environmentally sustainable fashion, mobility will be a blend of virtual and in-person models. Irish outward and inward mobility under the Erasmus+ programme will grow in order to enhance multilingual and transcultural competencies. The Irish Government's commitment to fund Northern Irish students' participation in the Erasmus+ scheme is an important catalyst.

The future will also see more staff mobility between HEIs, industry and external organisations; with academics regularly collaborating with external stakeholders (companies, NGOs, civic organisations), ensuring that curricula and teaching practices are up to date. To the same end, more experts from business, professions and civic and cultural bodies will teach on HEI programmes. Greater porosity between the campus and the workplace would see students enjoying more experiential learning in the work setting, acquiring interpersonal skills, problem-solving attributes, systems thinking capacity – all required to 'robot proof' them.<sup>2</sup>

Finally, the quality of the overall student experience – social, welfare, cultural as well as curricular and extracurricular experiences – will be a significant differentiator between institutions within the HEI system and between Irish and international higher education.

## II. Research

Addressing increasingly complex issues, research in Irish HEIs, as in international counterparts, will be ever more cross- and interdisciplinary, while the global Open Science agenda demands that research outputs be published through open access platforms.<sup>3</sup> Open Access (OA) to the original research data will help grow public confidence in research findings, enhancing the standing of science and respect for expertise, an important step to counter current global anti-science trends. To bolster society's trust in evidence and expertise, Irish HEIs will need to take three steps: (1) promote high ethical standards and integrity in research, (2) foster these at all levels and in the education and training of early career researchers and (3) promote more citizen participation in research, both its governance and conduct. This will enhance the perceived relevance of HEI missions and grow popular support for investment.

The successful management of the COVID-19 pandemic involves evidence and practices from an array of disciplines: the natural sciences, social sciences, humanities and the creative arts. Building on that learning, combating the great global challenges also requires an interdisciplinary approach and the full integration of natural and social sciences, the humanities and creative arts across all research funding calls.<sup>4</sup> Future research endeavours in Ireland, and elsewhere, must be characterised by deep collaboration among all actors. Within the 'distributed excellence' model (vide infra), HEIs will collaborate in regional clusters, partnering strategically with industry, and the civic, arts and professional sectors.

## III. Societal engagement

HEI communities will engage more with society, co-leading regional innovation ecosystems that encompass businesses, non-profit organisations, start-ups, the creative sector and public bodies. Their research skills and expertise should be made available to support regional responses to local challenges. As exemplars of sustainable practices themselves, HEIs will engage with their local communities to grow societal awareness of and commitment to the SDGs.

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2 See Aoun, J. E. 2018 Robot proof: higher education in the age of artificial intelligence. Massachusetts. MIT Press <https://www.amazon.com/Robot-Proof-Higher-Education-Artificial-Intelligence/dp/0262037289>

3 The Council of the European Union. Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021–2030) (2021/C 66/01) [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=uriserv:OJ.C\\_.2021.066.01.0001.01.ENG](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=uriserv:OJ.C_.2021.066.01.0001.01.ENG)

4 See: By imagination we live: a strategy for the humanities 2020–2030. The Irish Humanities Alliance 2019 <https://www.irishhumanities.com/assets/Uploads/By-Imagination-we-live-FINAL.pdf>

HEIs will better inform political discourse, participating more in public debate while connecting effectively with their alumni, an ever growing cohort of experts within society. As the stewards of cultural assets (museums, galleries and performance spaces), HEIs will contribute to local and regional cultural vibrancy. Furthermore, governance of all HEIs will include appropriate and diverse representation of external societal actors. Such societal engagement should enhance public understanding of the importance of HEIs to the wellbeing of society; it would encourage public ownership of their missions and willingness to invest in them.

### 3. THE HEI LANDSCAPE IN 2035: A MORE INTEGRATED SYSTEM OF INSTITUTIONS

In institutional composition, the Irish HEI system will be similar to 2021; in practices and inter-relationships it will have evolved dramatically. All HEIs will have become hybrid institutions: learning and research conducted on traditional campuses in modernised learning settings, online in virtual spaces but also – in support of experiential learning – in the workplace, in cultural spaces and in civic society settings.

The Irish system has benefited from a mix of public (the majority) and private providers. This mix should continue since a modicum of competition fosters innovation, but in a context where all institutions are subject to common quality assurance oversight. The European commitment to public funding of all levels of education will need to be mirrored in Ireland if we are to partner successfully and efficiently with a future deeply networked European HE system.

#### I. Spectrum of HEIs

The publicly funded HEI landscape will continue to consist of a spectrum of institutions, ranging from large comprehensive and research-intensive universities, through large or medium sized technological universities focused on applied research, to institutes of technology training for practical roles, colleges of the arts and colleges of further education. Coexisting with publicly funded institutions will be a spectrum of private institutions ranging from medium sized specialised universities (e.g. the Royal College of Surgeons Ireland,) to medium and small sized teaching colleges specialising in a limited number of disciplines. Large businesses (particularly in the multinational sector) are likely to deliver specialised bespoke programmes in collaboration with HEIs.

Diversity among HEIs, in prioritising among their main missions, in the mix of their degree and research programmes and in disciplinary specialisms, will remain a particular strength of the European and Irish higher education systems. But, as Irish HEIs become more integrated, striving to meet the totality of diverse educational needs, individual institutions must identify and declare their strategic priorities. They should aim to occupy a specific position on the spectrum of higher education mission, from research-intensive and academically focused on the one hand, to training in applied skills and practice-based or applied research on the other. Where gaps emerge, the national public funding model will incentivise new provision to address deficits.

#### II. Networked institutions

HEIs will be deeply networked, collaborating in teaching and research, with joint degrees across multiple institutions on offer to each university's registered students. This development will extend the existing European collaboration frameworks derived from the Bologna Process and the research consortia that form the backbone of European Commission funded research. Evolution will also derive from experience in the ongoing 'European University Initiative', already piloting models among 280+ universities grouped into 41 individual alliance networks. In 2035, some domestic networks will be wholly Irish; many will include partners from elsewhere in the EU and beyond.

To promote greater access, student mobility across HE institutions and lifelong learning HEIs should not only boost recognition of non-standard entry routes and of prior learning but also employ cumulative micro-credentials to qualify for full degrees. Social exclusion will also be diminished by new models of vocational education and training (VET) made possible through new partnerships between further education (FE), HE and industry leading to novel professional bachelor's degree programmes.



### III. HE system spatial configuration

Rational spatial planning has a short pedigree in Ireland. The country is challenged by uneven population distribution (concentrated near Dublin and Belfast, sparse in the west and north-west). The border has been an additional barrier to provision of public services linked normally to demographic drivers, and the geographic distribution of HEIs has been uneven in both jurisdictions. With the emergence of HEIs as premier enablers of regional success, calls for the creation of additional institutions have multiplied. Submissions to this exercise during the consultation phase confirmed the need for enhanced north–south collaboration. An accompanying paper will address this challenge in detail, as will a short paper proposing the establishment of all-island oversight of tertiary education and research, but for completeness and in setting out the shape of the future model(s) of education in Ireland, it is apt to offer a few relevant observations.

Irish HEIs are healthily diverse in nature. Traditional comprehensive universities are based in the major cities, highly research active, with an extensive range of scholarly disciplines. The nascent technological universities, Institutes of Technology and FE colleges are located in cities and major county towns; they often focus on provision of skills. While their mission specialisation is influenced by and influences local and regional, socio-economic and cultural strengths, there is also evidence of unnecessary duplication of disciplines. As the nature of HEIs evolves in accordance with collaboration and networking principles set out earlier, this level of duplication will be difficult to justify. Greater collaboration and sharing of resources locally, and indeed nationally, will grow critical mass, capacity and international competitiveness in individual disciplines, while enabling further sub-specialisation. However, the preservation of diversity must be a key strategic goal.

Currently, not all parts of the island have satisfactory or necessary access to tertiary institutions. Mapping of population access to HEIs across Europe confirms that the north-west and south-east of Ireland are disadvantaged and merit enhanced provision.<sup>5</sup> With progress in discussions between the Institutes of Technology in Waterford and Carlow towards a Technological University in the south-east, focus naturally falls on the north-west. There, four principles apply:

1. Planning should be conducted on an integrated and focused regional basis across the two jurisdictions.
2. The adoption of the blended campus model should reduce the requirement for new building construction in any new institutional structures, reducing financial and carbon cost.
3. Existing institutions represent essential foundational capacity, and a future multisite institution/federation/alliance may mirror the emerging models of bringing the university to the people rather than the people to the university in rural areas.
4. In establishing a unique brand consideration might be given to addressing deficits that are particularly relevant both nationally and locally, and the need for greater provision in tourism and related studies.

### IV. A system of distributed excellence

In the research domain, distributed excellence – eschewing the selection of a small number of elite and privileged institutions – will be a strength of Europe and Ireland, a hallmark of societal solidarity. Distributed excellence is not about levelling down but about promoting excellence based on a broad foundation of basic and frontier research. Local access to a HEI that is excellent in research is the sine qua non for competitive regional economic innovation and success in an increasingly knowledge-based society. While deep networking of contiguous HEIs in densely populated parts (such as Dublin and Belfast) will naturally create nodes of high capacity, funding policies should endeavour to ensure that clusters of excellence with diverse strengths emerge throughout the regions, contributing to European, national and regional economic and social cohesion.

A specific programme of distributed excellence across both jurisdictions, supported by both governments and their agencies will accommodate different sizes of projects, be available to all research disciplines and be blind to the nature of the institution or collaborating research group (institutes of technology, TUs, universities and, where applicable, industry, the arts sector and society as a whole). Recent German and French practice is to fund excellence initiatives for longer periods (up to ten years) with mid-term reviews. All HEIs will, of course, continue to promote excellence as a fundamental objective, embracing a culture of continuous performance improvement and subject to regular international peer review.

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<sup>5</sup> European Commission 2018 Access to universities in the EU: a regional and territorial analysis. See: [https://ec.europa.eu/regional\\_policy/sources/docgener/focus/2018\\_12\\_access\\_universities.pdf](https://ec.europa.eu/regional_policy/sources/docgener/focus/2018_12_access_universities.pdf)

The culture of an excellent HEI system will further embrace international collaboration, engagement and performance standards. The COVID-19 pandemic has underlined the need for more European and global research partnerships. Internationalised education will continue to grow too as all countries prepare their citizens for a globalised economy and for intercultural engagement in pursuit of global cohesion in addressing shared problems. But the current mobility model, largely the preserve of the affluent and high in carbon footprint, will be challenged and supplemented by growth in Collaborative Online International Education (COIL), resulting in a new wider spectrum of internationalisation models.

## V. An Irish brand

As the forces of globalisation drive convergence across the world, HEIs must play a key role in sustaining healthy diversity. Most obvious is their responsibility to preserve national and regional cultures.

HEIs will also play a crucial role in sustaining and developing the arts and the creative sector. Irish literature, drama, film, and the arts feature prominently on the world stage and give expression to global Irish identities in flux. Indeed, it might be argued that the humanities in Irish universities are the disciplines that define our changing identity most compellingly, meriting specific investment for both research and teaching. The societal challenges of the 21st century as touched upon in this paper require more than technocratic solutions. By studying how human beings have experienced, documented and mediated their worlds through language and culture, the humanities foster historically self-aware and creative societies. Interdisciplinary STEAM (Science, Technology, Engineering, Arts and Humanities and Mathematics) programmes and the growth of the digital humanities, environmental humanities and medical humanities are testament to 'the vital role played by the arts and humanities in developing critical thinking, creativity and communication.'<sup>6</sup>

But the sciences too have a case if HEIs act strategically. There is no such phenomenon as a national science, but there are some disciplines where Irish scientists are at the forefront in research and education, attracting students and researchers worldwide. There are several candidates for consideration: aspects of the maritime economy and marine science, ocean derived energy, medical education, food security, nutrition and agriculture, cybersecurity, wind and hydro energy.

Ireland's unique challenges and opportunities from being one of the world's most open economies, the consequences of being a GDP-GNP gap world outlier, with the potential of a large global diaspora (increasing in global importance as population migration increases) – all offer candidacy for reflection and possible exploitation as elements of a distinct HE brand. Northern Ireland equally has the unique vantage position of having full access to both the UK and EU single markets. A strong Irish HE brand will enhance the ability of Irish HEIs to compete globally as a key export industry in the knowledge economy of the 21st century.

Every national HE system should be able to answer the question: what are you known for?

In summary, Ireland's HEIs will be open, transformative, transnational, regionally rooted, deeply networked, sustainable, diverse, engaged and discernibly Irish. These characteristics resonate fully with the published objectives of the EU Council of Ministers for Education and Research<sup>7</sup>, communications from the European Commission on both the European Education Area and the European Research Area and policy positions of Northern Ireland.<sup>8</sup>

6 *By imagination we live: a strategy for the humanities 2020–2030*. The Irish Humanities Alliance 2019 <https://www.irishhumanities.com/assets/Uploads/By-Imagination-we-live-FINAL.pdf>, p. 4

7 The Council of the European Union. Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) (2021/C 66/01) [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=uriserv:OJ.C\\_.2021.066.01.0001.01.ENG](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=uriserv:OJ.C_.2021.066.01.0001.01.ENG)

8 See <https://www.economy-ni.gov.uk/topics/higher-education>; and: <https://www.economy-ni.gov.uk> <https://www.irishhumanities.com/assets/Uploads/By-Imagination-we-live-FINAL.pdf>.uk/articles/higher-education-strategies-northern-ireland

## 4. KEY ENABLERS OF HEI SUCCESS

Our model of higher education in Ireland in 2035 is one that responds logically to evident and emerging drivers of change. It will not be achieved through incremental tinkering with what is – rather, it will require dramatic and urgent creation of what needs to be. While much can be implemented by HEIs themselves it is crucial that the environment in which they operate facilitates rather than impedes their evolution. The elements for success are manifold, commencing with those in the domain of public policy.

### I. Enabling regulatory frameworks

Smart regulation can help to provide the right balance between institutional accountability and autonomy. Analysis of university autonomy across Europe reveals enormous diversity in regulatory frameworks, but the better performing HE systems enjoy the greatest degree of freedom to manage their own affairs. Success aligns with freedom to organise the HEI internally, to manage staff at an institutional level, freedom to manage the financial affairs of institutions, to own buildings, to raise loans, to enter into international commitments and agreements, to organise academic affairs, to draw on diverse external inputs at board level, to promote pedagogical experimentation and curiosity driven research, to establish subsidiary or spin-off companies and to reward exceptional individual performance. Institutions in Northern Ireland enjoy considerably more autonomy than counterparts in Ireland which, apart from the domain of academic freedom, are among the most constrained in Europe.<sup>9</sup> Ireland's regulatory framework for HEIs requires a reset – prioritising features shown to work well elsewhere over those that are bureaucratically or politically convenient.

On the other side of the regulatory coin, formalised accountability toolkits are currently proliferating across our continent. Performance contracts between the state and HEIs, negotiated through meaningful dialogue, operate most successfully when they focus on elements that promote a culture of excellence and only those essential to ensure public confidence in institutions. The menu of key performance indicators developed over the past decade in Ireland exhibits a scale of micromanagement unparalleled in Europe. Incompatible with a culture of healthy autonomy, it requires reform, based on international experience.

Academic freedom guaranteed by EU, Irish and UK law must be evident in practice. It is the bedrock on which excellence in research and education sits. Financially rewarding international partnerships, with institutions in non-democratic regimes in particular, require explicit recognition 'of the principles that ideas are not crimes and that critical discourse is not disloyalty, but rather essential parts of a democratic society and its development, that the autonomy of education institutions should be protected at all times, and that academic freedom plays an essential role in the educational advancement and the development of humankind and modern society.'<sup>10</sup>

Performance compacts, referenced earlier, and linked funding models impose covert restriction, through overly prescriptive performance indicators, or perverse incentives that stifle innovation. Autonomy and academic freedom as well as appropriate accountability to society, with respect for democratic values, will be essential to HEI success in all missions but particularly in research and innovation.<sup>11</sup>

### II. Effective systems and institutional governance

High quality governance and leadership are fundamental prerequisites for success in a dynamic environment. The rapidly evolving models of interinstitutional collaborations and interdependencies demand innovation and shared governance models, be it at the regional, national or transnational level. It is beyond the scope of this paper to make detailed proposals on system governance, but a few observations are appropriate.

<sup>9</sup> See <https://www.university-autonomy.eu>

<sup>10</sup> Defence of academic freedom in the EU's external actions. Text adopted by the EU Parliament, 29 November 2018. See: [https://www.europarl.europa.eu/doceo/document/TA-8-2018-0483\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-8-2018-0483_EN.html)

<sup>11</sup> On academic freedom, view the joint statement by ALLEA, EUA and Science Europe. See: <https://allea.org/allea-eua-and-science-europe-publish-joint-statement-on-academic-freedom-and-institutional-autonomy/>

The new transnational university alliances being piloted in Europe have identified substantial obstacles to efficient governance of joint programmes arising from divergent national regulatory frameworks.<sup>12</sup> Both Ireland and Northern Ireland must evolve new governance frameworks to oversee and support novel and emerging education and research networks. At a minimum, these will be necessary to endorse shared strategies, validate and quality assure learning that students may accrue from different HEIs and oversee resource movements. An intergovernmental joint agency forum must emerge while strengthening and extending membership of the existing Universities Ireland will prove valuable.

In order to boost confidence and trust in the state and its agencies, the national offices (even ministries) which oversee the principle of quality enhancement in the HEIs should also undergo regular international peer review of performance and of mission and impact.

At institutional level, the quality of governance and oversight is enhanced by diversity in membership of boards, ensuring that appointees have competence in relevant governance domains. Boards of individual institutions should continue to comprise representatives of society broadly and of members of the HEI community. External members should be diverse in origins in all senses (honouring EDI principles among nominations from regional and national business, civic society, the cultural sector, professions and government). The learning and research community should be represented by student leaders, administrative, technical and professional staff, research and academic staff, elected by peers. Participation by experienced international academics and HEI former leaders will add greatly to board capacity while driving commitment to international and domestic partnerships and collaboration. If legislation requires ministerial appointment, nominations should be made by bodies independent of government, for formal endorsement.

### III. Funding

Investment and sufficient revenue will be crucial to success. Recent European data reveal that, among 33 systems studied, the shortfall in public investment is most dramatic in Ireland and Serbia. Ireland stands out for its chronic decline in funding (just recently stabilising) in the face of ever-increasing student numbers, in addition to severe infrastructure deficits following a decade of negligible capital investment.<sup>13</sup>

Public funding of the HE sector in Ireland, north and south, has been parsimonious and increasingly divergent from European public practice. This is no longer sustainable.<sup>14</sup> Public HEIs have been resilient, diversifying their sources of income. But philanthropy and recruitment of high-fee-paying international students are precarious sources, not fit for the future of HEIs sketched in this paper. The broad emergence of courses taught through the English language in high quality universities across Europe, often in countries charging no fees, may erode Irish competitiveness and ultimately encourage Irish brain drain. If Ireland aspires to exemplary performance, Ireland too has to invest in HE infrastructures as others are doing. The recent investment in Irish HE is a welcome first step in addressing the funding challenge but needs to be augmented and sustained.<sup>15</sup>

Direct investment in higher education itself is only part of the story. COVID-19 has revealed new disparities within and between countries in spending on infrastructure on which the whole of society (not just higher education) relies. Investment in national digital infrastructure, in green transport and in upskilling staff will be critical to implementing the new vision for HEIs. Both the EU and member states, working in partnership, must implement the Strategy for Digital Europe<sup>16</sup> so that all parts can participate fully in the new digital economy and society and HEIs, in turn, can implement the hybrid campus model.

12 See: European Universities Initiative: EUA warns against top-down steering and calls for further action to remove barriers. <https://eua.eu/news/687:european-universities-initiative-eua-warns-against-top-down-steering-and-calls-for-further-action-to-remove-barriers.html>

13 <http://eua.eu/downloads/content/eua%20pfp%202019%20report.pdf>

14 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](https://www.ria.ie/sites/default/files/ria_advice_no10_2_21.pdf) and Briefing on Northern Ireland Budgetary Outlook 2018–2020: [https://www.ria.ie/sites/default/files/ria\\_ni\\_budget\\_2018-20\\_final.pdf](https://www.ria.ie/sites/default/files/ria_ni_budget_2018-20_final.pdf)

15 The announcements by Minister Simon Harris T.D. to invest €225 million in further and higher education under the National Recovery Plan and €40 million for a north–south research programme under the Shared Island Fund are welcome. See: <https://www.gov.ie/en/press-release/f7c87-minister-harris-announces-225-million-investment-in-further-and-higher-education-and-research-under-national-recovery-and-resilience-plan/>; and: <https://www.gov.ie/en/press-release/cb3c4-taoiseach-and-minister-harris-announce-40-million-funding-for-north-south-research-programme/>

16 Factsheets on 'A Europe fit for the digital age' and 'Shaping Europe's digital strategy' are available from the European Commission. See: [https://ec.europa.eu/commission/presscorner/detail/en/fs\\_20\\_278](https://ec.europa.eu/commission/presscorner/detail/en/fs_20_278) / <https://ec.europa.eu/digital-single-market/en>

While enhancing the broad funding envelope is the main priority, competitive and performance-linked funding, sometimes a necessary and useful tool to drive excellence, should never exceed a small fraction of revenue unless it is 'additional money', as for example in the case of the German Excellence Initiative.<sup>17</sup> The 'block grant', long a facilitator of researcher-initiated work and particularly important to the humanities, has shrunk dramatically over the past decade – further diminishing institutional autonomy. It needs to be restored. *Pari passu*, research funding models that over-emphasise mission-driven projects but limit bottom-up academic initiated enquiry have further diminished academic research freedom, yet, in signing the Bonn Declaration on Research Freedom in 2020, Ireland signed up to commitments to avoid such constraints.<sup>18</sup> Freedom to test new concepts must be constantly nurtured, not diminished.

#### IV. Reform of research strategy, policies and funding

The adoption twenty years ago of good international practices in research assessment, commitment to excellence as the premier criterion for awards, reliance on international peers for adjudication and, above all, investment approaching parity with other countries, transformed Ireland's research landscape. Similarly, participation since the late 1980s by the Northern Ireland universities in successive UK Research Assessment/Research Excellence Framework exercises has led to major improvements in quality and volume of research.

Today, Irish scientific research outputs match the EU average, eighth in published papers per capita in 2018. Ireland is a leader in a small but growing number of fields and related innovation is translating into economic benefit. The arts and humanities and the creative industries have boosted Ireland abroad, while also contributing significantly to the economy. There is, however, a particular need to repair the damage from the 2008–10 financial crisis when infrastructure investment dried up and many key research leaders were lost to international competitors.<sup>19</sup>

##### Research governance

Ireland and Northern Ireland will benefit from reformed research governance and refreshed national research strategy. A reconfiguration of the research agencies should avoid duplication and fragmentation while actively promoting interdisciplinary work and advancing distributed excellence in some strategic areas on an all-island basis with funding support from both jurisdictions. Consideration should be given to the EU/UK structure of an Innovation Council and a Research Council for all disciplines. Such a reconfiguration should also advance 'distributed excellence' as a model particularly suited to Ireland with its strong regional identities. The strategy must respond to the needs and value of all disciplines and balance the ever-pressing economic and societal need for mission-driven research, with the longer horizon returns from curiosity-driven, blue-skies enquiry. Where possible, strategies should be linked on an all-island basis to promote synergy and enhanced international research competitiveness for the island as a whole.

Research governance should be strengthened to ensure international norms of scientific board competences and avoidance of conflicts of interest by ensuring 'clear blue water' between research commissioning agencies and research performing institutions. Importantly, and building on recent international developments (for example in France), the wisdom of branding research units within HEIs under the banner of the funding agency should be reconsidered if Ireland and Northern Ireland seek to ensure growth in the international reputation and standing of their HEIs.

17 Excellence initiative at a glance. The Programme by the German federal and state governments to promote top-level research at universities: [https://www.dfg.de/download/pdf/dfg\\_im\\_profil/geschaeftsstelle/publikationen/exin\\_broschuere\\_en.pdf](https://www.dfg.de/download/pdf/dfg_im_profil/geschaeftsstelle/publikationen/exin_broschuere_en.pdf) / [https://www.dfg.de/en/research\\_funding/programmes/excellence\\_initiative/index.html](https://www.dfg.de/en/research_funding/programmes/excellence_initiative/index.html)

18 European Ministers adopt declaration on research freedom. 2020. <https://www.universityworldnews.com/post.php?story=20201023155951914>

19 In 2016, the government of Ireland commissioned a report led by Peter Cassells into the funding of higher education, the central recommendations of which have yet to be implemented. 'Core Funding: Additional annual funding of €600 million by 2021 and €1 billion by 2030 to deliver higher quality outcomes and provide for increased demographics. This will allow an improvement in student:staff ratios, better engagement with students, and improved support services for teachers and students. This will underpin the quality of teaching and learning, the relevance of graduates' competences and abilities and improve completion rates. Capital Funding: A capital investment programme of €5.5 billion is needed over the next 15 years to sufficiently cater for increased student numbers, capital upgrades, health and safety issues, equipment renewal and ongoing maintenance. Student Support: An additional €100 million is needed to deliver a more effective system of student financial aid.' See: <https://www.education.ie/en/Publications/Policy-Reports/Investing-in-National-Ambition-A-Strategy-for-Funding-Higher-Education.pdf>

Reform must encompass one further element. There is growing recognition of the importance of a 'healthy research culture' defined by the Royal Society as encompassing the behaviours, values, expectations, attitudes and norms of research communities. It influences researchers' career paths and determines the way that research is conducted and communicated.<sup>20</sup> It also enhances societal trust in science and expertise. Addressing this challenge will demand trustful and deep collaboration between the research agencies and tertiary institutions.

### **Research funding**

Ireland made impressive strides in research investment during the first decade of the century; in 1997, Ireland's research investment was second lowest in the OECD. The Programme for Research in Third-Level Institutions (PRTL) awarded approximately €1.2bn in exchequer and matching funding for buildings, research centres, equipment and training (2002–09). A new cycle was never established.<sup>21</sup> Today, after a long decade of stagnation, annual research investment hovers below European average levels and falls well short of the 3% of GDP target to which governments signed up in Lisbon in 2000. Meanwhile, in Northern Ireland, the Support Programme for University Research (SPUR) funded jointly by Atlantic Philanthropies and the Northern Ireland Executive, provided £100 million to support research infrastructure including high calibre appointments.<sup>22</sup> This yielded substantial improvements in research performance but it, too, has not been repeated.

HEIs are increasingly challenged by the absence of full economic costing of research which has resulted in ambitious HEIs subsidising their research mission at the cost of teaching, or other equally important goals. A new research funding model is required, one that repeats the PRTL capital programme in Ireland and a similar initiative in Northern Ireland to invest in infrastructure, and a revenue model that avoids harmful conflict between the research and teaching missions of HEIs. This programme should be based on the principles of distributed excellence.

The interdisciplinary, interinstitutional research clusters of a deeply networked HEI system will require funding models and structures of support informed by recent experience in the German and French Excellence Initiatives. There, assessment of funding applications included international panels of experts from a mixed set of disciplines. The consequent full integration of humanities and social sciences research across research funding calls should ensure necessary holistic responses to major societal challenges. Meanwhile, funding of research based on the distributed excellence model will result in the formation of unique regional clusters between HEIs, industry, the arts and tourism sectors. A national register of research expertise should be developed to facilitate the formation of dynamic research clusters across the HEI landscape.

### **Sustaining research capacity**

Early career researchers (ECRs) are drivers of research, innovation and excellence; they advance the knowledge economy, contribute to societal change, discover new directions for research and disseminate their knowledge through new tools. Ireland needs to be more ambitious in attracting and retaining new talent by providing competitive doctoral and postdoctoral funding and training opportunities across all disciplines. Cross-sectoral career opportunities need to be developed in partnership with external stakeholders, including industry, NGOs, the creative industries and the public sector.

The precarity of research careers is a challenge in Ireland, Northern Ireland and across Europe. The attraction and retention of highly skilled ECRs is crucial to sustain a knowledge-research-innovation ecosystem. In recognition of the integral role of ECRs, governance structures should include ECR representation. The national funding agencies in Ireland and Northern Ireland should require all HEIs in receipt of public funding to implement agreed principles for the support of ECRs, addressing environment and culture, employment and professional and career development. Excellence will thrive in an inclusive and supportive research culture.

Principles of diversity, flexibility and porosity should result in a culture that recognises and values diverse career pathways and enables intersectoral mobility. Transversal training opportunities outside their core disciplines should provide ECRs with prospects beyond academia.

20 See: Research culture: embedding inclusive excellence – workshop report (royalsociety.org), p. 3. See also: <https://wellcome.org/sites/default/files/research-culture-literature-review.pdf>

21 Royal Irish Academy, Future-proofing and improving research infrastructures in Ireland (Dublin, 2018), p. 8.

22 See: [https://www.atlanticphilanthropies.org/wp-content/uploads/2017/11/NIL\\_CountryBook-AP.pdf](https://www.atlanticphilanthropies.org/wp-content/uploads/2017/11/NIL_CountryBook-AP.pdf)

Mentoring in portfolio development to document individual achievements, research publications, co-authorship of funding applications and teaching contributions should be the norm. Mentoring should be conducted by more than one supervisor and focus on inculcating commitment to high quality, probity and ethical behaviour. As already indicated in this report, academic career assessment reforms should extend to ECRs.

## 5. COMPETENT, AMBITIOUS, ENLIGHTENED HEI LEADERSHIP

With their multifaceted missions, ever-growing demand for access by diverse learners, ambitious research and commercialisation agendas, burgeoning learner numbers, diversity of stakeholders and the increasing reliance of society on their success, many HEIs have become large, complex, often multinational institutions. Excellent leadership is crucial and while certain desired qualities may be innate in some individuals there is an ever-increasing requirement for prior and in-post bespoke professional development. More broadly, universities must embrace more professionalisation of management systems, programmed career development opportunities and competitive reward systems for those who embrace the many specialised leadership and management responsibilities in modern HEIs.

**Reform of academic career assessment:** If academic staff are to engage with the evolving missions of their institutions, they must enjoy career advancement through evaluation systems that reward good performance in all facets of academic life. HEIs must value the diverse elements of the institutional mission equitably and, in particular, accord parity of esteem to teaching and research. Reliance on questionable metrics of research performance, currently the mainstay of assessment in many systems, should be replaced by more holistic measures of the many facets of the modern academic career. While HEIs that prioritise research in their institutional missions may continue to rely more on research metrics, they too must broaden those metrics beyond the traditional indices. To ensure success, performance incentives within the university community must be aligned with the university plan – in turn aligned with the institutional vision for a sustainable community and planet.

## 6. FINAL REMARKS

While there are local challenges that demand bespoke solutions, the island's tertiary institutions sit comfortably within broad European higher education frameworks. There are particular issues that derive from the partition of the island, the lack of synchrony across the two political systems, a history of civic conflict and the recent withdrawal of the UK from the European Union. These factors are all having an impact on Northern Ireland and north-south relations, as are the infrastructural deficits inherited from a prolonged era of relative poverty in the south of the island, together with over centralisation in both states (Ireland and Northern Ireland), with consequent regional disparities in provision. Nevertheless, all HEIs on the island face the same overarching global trends that outweigh, in scale and pace, the significance of local matters. The vision for 2035 outlined in this paper, derived from a broad consultation with Irish stakeholders and informed by international consensus on the direction of higher education and research, sets out the destination for HEIs. Getting there demands that the government and HEIs travel together with all stakeholders in society.

## 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.***



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